REVIEW OF HEALTHCARE IN INDIA

Editors : Leena V. Gangolli • Ravi Duggal • Abhay Shukla

Cehat
Centre for Enquiry into Health & Allied Themes

Review of Healthcare in India

Review of Healthcare In India

Leena V Gangolli
Ravi Duggal
Abhay Shukla

Cehat
Centre for Enquiry into Health and Allied Themes, Research Centre of Anusandhan Trust, Survey No. 2804 & 2805, Aaram Society Road, Vakola, Santacruz East, Mumbai – 400055, Maharashtra, India; Ph:(+91-22) 26673154, 26673571; Fax :26673156;
Email :cehat@vsnl.com; www.cehat.org

Published in January 2005

By
Centre for Enquiry into Health and Allied Themes
Survey No. 2804 & 2805
Aram Society Road
Vakola, Santacruz (East)
Mumbai - 400 055
Tel. : 91-22-26673571 / 26673154
Fax : 22-26673156
E-mail : cehat@vsnl.com
Website : www.cehat.org

ISBN : 81-89042-40-8

Cover Design By :
Kiran Nagda
Poonam Dadlani

Printed at :
Satam Udyog
Parel, Mumbai-400 012.

Preface

The twenty fifth anniversary of Alma Ata Declaration was observed last year. Along with other countries, India had also formulated various targets to be achieved by the year 2000. However, the achievements were minimal even after half a century of health planning, and most of the goals could not be realized. The health situation in our country continues to be dismal.

Infant and Child mortality takes away the life of 2.2 million children every year. The target for 2000 was to reduce Maternal Mortality Ratio to less than 200 per 100,000 live births. However, the MMR remains as high as 407 even today. The most recent estimate of complete immunization coverage indicates that only 54% of all children under age three were fully protected. The number of people dying of Tuberculosis is almost unchanged since Independence and remains at 500,000 every year. 2 million new cases of TB are added each year and the total number of TB patients presently is estimated to be around 14 million, the largest number in any country in the world. India is experiencing a resurgence of various communicable diseases including Diarrhoeal Diseases, Cholera, Malaria, Encephalitis, Kala azar, Dengue and Leptospirosis. The number of cases of Malaria has remained at a high level of around 2 million cases annually since the mid eighties. It is estimated that more than 5 million people are suffering from HIV/AIDS and within a few years India will be overtaking South Africa in having the highest number of HIV/AIDs cases in the world.

Meanwhile, the international financial institutions like World Bank, IMF and the World Trade Organization are thrusting their neo liberal economic agenda on the Government of India, with the effect that there is a virtual withdrawal of the state from social service sectors like health and education. Uncontrolled privatisation and the international privatisation of pubic sector and paucity of funds are leading to the collapse of the public health institutions. The patent rule changes and the weakening of the public sector pharmaceutical industries have further deprived the people of essential medicines. There is an escalation of medical expenses on an unprecedented scale and more and more people are denied even primary health care.

The situation demands concerted action from civil society organizations, People's Health Movements and other concerned groups and movements to pressurize the Government both at the national and state levels to radically alter the way the health services are organized and funded. Priorities are to be changed taking into consideration the health problems affecting the marginalized people and the vulnerable sections of the society. The National Government should also resist the pressure from the International Financial Institutions to further privatize the health sector, since the Indian health sector is one of the most privatized in the world.

It is in this context that CEHAT has compiled the volume "Review of Health Care in India" as an input to support the activities of the Peoples Health Movement-India (Jan Swasthya Abhiyan-JSA). This document is qualitatively and conceptually different from similar books published by other agencies discussing the health situation in India. The articles in the present volume try to analyse and reinterpret the health situation and health statistics from people's perspective and with a view to strengthen the emerging movement demanding a people's health policy for our country.

The document contains 18 chapters and discusses such varied topics ranging from the

state of the preventive health and nutritional services for children to the community health worker program and the public health system. Ritu Priya has written an illuminative article on the public health services in India from a historical perspective. The population policies in India are critically analysed by Mohan Rao, while Ravi Duggal has reviewed other health policies. Control of communicable disease has been critically analysed and alternative proposals based on national priorities are presented by Leena V Gangolli and Rakhal Gaitonde. The role of community health workers in public health is described by T. Sundararaman. In the section on women and children, Vandana Prasad examines nutritional services for children, NB Sarojini discusses reproductive services for women and Padma Deosthali and Purnima Manghnani write on the issues related to Gender based violence and the role of the public health system. The section on Health Systems and Resources contains notable articles on financing by Ravi Duggal, access issues by TR Dilip, essential drugs by Srinivasan and Indian Systems of Medicine by Leena Abraham and regulation of the private health sector by Rama V Baru. The material presented in all the chapters is distilled into the conclusion by Abhay Shukla. The volume as a whole throws light on some of the not much discussed areas of the health sector of the country. The articles in the volume carry conceptual clarity and ideological lucidity. In addition to the articles, the book contains an appendix of statistical data, a valuable tool for researchers and activists.

The publication of the document has come at a most appropriate time. JSA is today involved in popular mobilisation by organising Jan Sunwais (Public Hearings) across the country, documenting specific cases of denial of health care thereby reaching out to people across the country, mobilising the people for their just health rights. The document reinforces the view expressed by JSA that India today possesses the human power, infrastructure, national financial resources and appropriate health care know-how to ensure quality health care for all its citizens. What is needed is a major restructuring and strengthening of the health system. This involves two major ingredients: popular mobilisation for operationalising the Right to Health Care, and the political will to implement policy changes necessary to transform the health system.

The present volume shall definitely be a guiding inspirational document for the People's Health Movement activists all over the country, for building up a popular movement to realise health as a fundamental right for the citizens of India. The CEHAT team members deserve kudos for compiling this extremely valuable document.

Dr.B.Ekbal
National Convenor
Jan Swasthya Abhiyan and
Former Vice Chancellor
University of Kerala

Acknowledgements

This review of healthcare is the result of the hard work and dedicated efforts of a number of people.

We would like to individually thank the authors for their contributions.

We also express our sincere gratitude to Dr. Amita Pitre for her participation in the initial planning of the book as well as reviewing some of the chapters ; Ms. Margeret Rodrigues and Ms.Muriel Carvalho who have provided invaluable assistance in expediting the printing and final publishing of the book and Ms.Sunanda Bhattacharjea, who assisted in the editing.

Finally, we would like to thank NOVIB and Ford Foundation for the financial resources which made the publication of this book possible.

There were some unavoidable circumstances, which resulted in the delay of the release of the book and we are sincerely grateful to everyone who was a part of this process for the patience and cooperation extended.

Dr. Leena V Gangolli
Ravi Duggal
Dr. Abhay Shukla

List Of Abbreviations

AFP	Acute Flaccid Paralysis
AIDS	Acquired Immunodeficiency Syndrome
ANC	Antenatal Care
ANM	Auxiliary Nurse Midwife
API	Active Pharmaceutical Ingredients
ART	Anti Retroviral Therapy
ARV	Anti Retroviral
AWC	Anganwadi Centres
AWW	Anganwadi Worker
BPL	Below Poverty Line
CAG	Comptroller And Auditor General
CDA	Central Drug Administration
CGHS	Central Government Health Service
CHW	Community Health Worker
CIPR	Commission On Intellectual Property Rights
CME	Continuing Medical Education
CSR	Child Sex Ratio
CSSM	Child Survival And Safe Motherhood
CT	Computerized Tomography
DALYS	Disability Adjusted Life Years
DOTS	Directly Observed Treatment, Short Course
DPCO	Drug Price Control Order
DPCRC	Drug Price Control Review Committee
ECG	Electrocardiogram
EDL	Essential Drug List
EMR	Exclusive Marketing Rights
EPI	Expanded Program Of Immunization
ESIS	Employees Social Insurance Scheme
FDA	Food And Drug Administration
FPP	Family Planning Program
GDP	Gross Domestic Product
GOBI	Growth Montoring Oral Rehydration Therapy Breast Feeding Immunization
GOI	Government Of India
GPEI	Global Polio Eradication Initiative
HAART	Highly Active Anti Retroviral Therapy
HIV	Human Immunodeficiency Virus
HSR	Health Service Reform
ICDS	Integrated Child Development Services
ICPD	International Conference On Population And Development
IFA	Iron And Folic Acid Tablets
IFR	Infant Mortality Rate
IPV	Injectable Polio Vaccine
ISM	Indian Systems Of Medicine
ISM+H	Indian Systems Of Medicine + Homeopathy
IUD	Intra Uterine Device
LHV	Lady Health Visitor
MAPE	Maximum Allowable Post Manufacturing Expense
MCGM	Municipal Corporation Of Greater Mumbai
MCH	Maternal And Child Health
MCI	Medical Council Of India
MDMP	Midday Meal Program
MDRTB	Multi Drug Resistant Tuberculosis
MMR	Maternal Mortality Rate

MNC	Multinational Corporations
MOHFW	Ministry Of Health And Family Welfare
MPCE	Monthly Per Capita Expenditure
MPO	Modified Plan Of Action
MPWF	Multipurpose Worker Female
MRC	Malaria Research Centre
MRI	Magnetic Resonance Imaging
MSF	Medecins Sans Frontieres
MTP	Medical Termination Of Pregnancy
NACO	National Aids Control Organization Of India
NCAER	National Council Of Applied Economic Research
NFHSI	National Family Health Survey
NGOS	Non Governmental Organization
NHP	National Health Program
NHRC	National Human Rights Commission
NIN	National Institute Of Nutrition
NIPCCD	National Institute Of Public Cooperation And Child Development
NLEM	National List Of Essential Medicines
NMEP	National Malaria Eradication Program
NPEV	Non Polio Entero Viruses
NPPA	National Pharmaceutical Pricing Authority
NTCP	National Tuberculosis Control Program
NTI	National Tuberculosis Institute
NTP	National Tuberculosis Program
OBC	Other Backward Castes
OPV	Oral Polio Vaccine
ORG	Organization
ORS	Oral Rehydration Salts/ Solution
PDS	Public Distribution System
PHC	Public Health Centre
PLWHA	People Living With Hiv/ Aids
PRI	Panchayat Raj Institutions
PSU	Peripheral Service Unit
RCH	Reproductive And Child Health
RDA	Recommended Dietary Allowance
RNTCP	Revised National Tuberculosis Control Program
RTI	Reproductive Tract Infection
SAP	Structural Adjustment Program
SC	Scheduled Castes
SLI	Standard Of Living Index
SNP	Supplementary Nutrition Program
SRB	Sex Ratio At Birth
SSA	Sex Selective Abortions
ST	Scheduled Tribes
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection
TBA	Traditional Birth Attendant
TFR	Total Fertility Rate
TRIPS	Trade Related Intellectual Property
TT	Tetanus Toxoid
UIP	Universal Immunization Program
VAPP	Vaccine Associated Paralytic Polio Myelitis
VDPV	Vaccine Deprived Polio Viruses
VHN	Village Health Nurse
WHO	World Health Organization
WTO	World Trade Organization

Contents

List of Tables

List of Graphs

Errata

A list of corrected content on respective pages is given below:

Page 22; Footnote 2 should read: "Jaggi O.P. 1979.Western Medicine in India-Medical Education and Research.Volume XIII of History."

Page 32; Footnote 37 should read: Planning Commission, Government of India. Sixth Five Year Plan. 1985

Page 75; Footnote 2 should read: Ministry of Health and Family Welfare. National Health Policy.2002.

Page 77; Footnote 6 should read: Capra Fritjof. Hidden Connections. Harper Collins.2001

Page 78; Footnote 7 should read: Banerjee D. A social science approach to strengthening India's National Tuberculosis Program. Indian Journal of Tuberculosis; 40:61-81

Page 92-93; The quoted material in inverted commas is an excerpt from a joint letter issues by Jan Swastya Sahyog, SAMA, Prayas (Rajastan) and CEHAT.

Page 189; third last line should read: "this to be an easier route to enter the profession"

Page 190; ninth last line should read: "'scientific status' as well as the economic and..."

Page 194 ; Footnote 21 should read: Quoted in Rhode...

Page 199; section on Practitioners, fourth line should read: Table 2 (not Table 4)

Page 202; second paragraph last two lines deleted.

Page 297; Footnote 10 should read: op.cit. footnote 8

Page 298; Footnote 14 should read: See Bhargava, Anurag , "Tremendous Variations in Drug Prices in the Indian Pharmaceutical Market" in *Impoverishing the Poor: Pharmaceuticals and Drug Pricing in India,* LOCOST, : Baroda, 2004.

Page 301; Footnote 18 should read : AIDAN and ors. Versus Union of India in the Supreme Court of India –WP (Civil) 423/ 2003). See also arguments of the case summarized in LOCOST, 2004.

Page 301; Footnote 19 should read: Rane, op.cit, footnote 9.

Page 311; Citation below Graph 1 should read : Source for Table 9 and Graph 1: Bapna, J.S. "Rational Drug Use.... New Delhi.

Page 311; Main Text below Graph 1 should read: Similarly though not as dramatically, ……(DIMS). See bar charts below (Graphs 2 and 3) for illustration. (Source for graphs, Orissa Government documents on DIMS.)

Page 311; Citation below Graph 2 should read: Source for Graphs 2 and 3, Orissa Government documents on DIMS.

Page S-6 and S-7; Table 1.4 The TFR(Total Fertility Rate) is defined as the average number of babies born to women during their reproductive years.

Page S-22 to S-26; Table 3.1,3.2,3.3,3.4,3.5 Apart from the CMIE, which has been mentioned in the sources, data for the 2003 and 2005 columns has also been sourced from Reserve Bank of India. State Finance-A Study of the Budget 2004-2005.

SECTION 1
INTRODUCTION

Introduction to Review of Healthcare in India

Ravi Duggal, Leena V Gangolli

Poverty is the real context of India. Three-fourths of the population live below or at subsistence levels. This means 70-90 per cent of their incomes goes towards food and related consumption. In such a context social security support for health, education, housing etc. becomes critical. Ironically, India has one of the largest private health sectors in the world with over 80 per cent of ambulatory care being supported through out-of-pocket expenses. The public health services are very inadequate. The public curative and hospital services are mostly in the cities where only 25 per cent of the one billion population reside. Rural areas have mostly preventive and promotive services like family planning and immunisation. The private sector has a virtual monopoly over ambulatory curative services in both rural and urban areas and over half of hospital care. Further, a very large proportion of private providers are not qualified to provide modern health care because they are either trained in other systems of medicine (traditional Indian systems like ayurveda, unani, siddha, and homoeopathy) or worse, do not have any training. These, however, are the providers from whom the poor are most likely to seek health care. This adds to the risk faced by the already impoverished population. The health care market in India, like in the USA, is based on a supply-induced demand and keeps growing geometrically, especially in the context of new technologies. The cost of seeking such care is also increasing. This means that the already difficult scenario of access to health care is getting worse, and not only the poor but also the middle classes get severely affected.[1] Thus India has a large, unregulated, poor quality, expensive and dominant private health sector, and an inadequately resourced, selectively focused and declining public health sector despite its poverty, with the former having curative monopoly and the latter carrying the burden of preventive services.

Given the above context the lack of right to healthcare is the main reason why health status of the Indian population is unsatisfactory. Health indicators across the board are close to the worst and within the country inequities across classes are very severe. For example, the disparity between the top 18 per cent (socio-economically high) households and the bottom 36 per cent (socio-economically low) households, favouring the former. In infant and child mortality rates it is of the magnitude of 2 ½ times,[2] prevalence of malaria 3 times, prevalence of tuberculosis 4 times, access to antenatal care nearly 4 times, completed immunisation 2 times, childbirth by doctors 4 times, malnourishment amongst women in reproductive age-group 3 times.[3] This is clearly due to inadequate access to healthcare services, because even in conditions of poverty if access to primary healthcare is universal

[1] The 52nd Round NSS data reveals that for inpatient care 46 per cent of poorer classes and 34 per cent of the richer classes either sold assets or took loans to pay for treatment. And those using private hospitals were 16 per cent more likely to get into indebtedness than those using public hospitals. (NSS-1996 : Report No. 441, 52nd Round, NSSO, New Delhi, 2000)

[2] It is estimated that 2 million children under 5 years of age die every year because of the high child mortality rate. If the entire country experienced the child mortality rate of Kerala the number of such deaths each year would fall by a whopping 1.6 million (Shukla A, 2001: Right to Health Care, Health Action, May 2001)

[3] NFHS-1998, 2000: National Family Health Survey–2: India, IIPS, Mumbai

then it can become a leveller of healthcare outcomes. In the case of nutritional outcomes the disparities are even wider as this is more closely a function of income poverty. Unlike healthcare, social intervention for nutrition is only rendered during a severe crisis. The unfortunate reality is that today even during crises this does not happen, and shamefully we experience starvation deaths in many places in India despite having overflowing storehouses of reserved food-stocks under state control. With such inequities prevailing it is evident that the healthcare and food distribution systems are biased in favour of those with purchasing power and hence such a system is grossly discriminatory.

The Healthcare System

The political economy of health care services in India has various dimensions. Multiple systems, various types of ownership patterns and different kinds of delivery structures make up a complex plurality that makes the development of an organised system difficult. Allopathy, ayurveda, homoeopathy, unani, siddha, among others, are different systems of medicine available in the country. However, allopathy is the dominant system of medicine. Its domineering influence is evidenced by the fact that practitioners of other systems of medicine are now also primarily practicing allopathy. National surveys done by NSSO and NCAER and other small-scale studies clearly bring this out.

As regards ownership, while the broad characterisation could be made as public and private, there are various intricacies involved. The public sector ownership is divided between central and state governments, and municipal and panchayat local governments. The facilities include teaching hospitals, secondary level hospitals, first level referral hospitals (community health centres [CHCs] or rural hospitals), dispensaries, primary health centres (PHCs) and sub centres, and health posts. Apart from this there are public facilities for selected occupational groups like the Employees State Insurance Scheme (ESIS), defense, Central Government Health Scheme (CHGS), railways, post and telegraph, mines etc. These are usually hospitals of various capacities and dispensaries or clinics.

Private ownership is of two kinds, for-profit and not-for-profit. The former could be self-employed or individual ownership or various other forms of ownership like partnership, co-operative or corporate. The not-for-profit variety is usually a Trust or a Society, many of these also being called non-government organisations (NGOs). These again could be teaching hospitals, hospitals and nursing homes of various sizes providing a variety of care, clinics and dispensaries, and diagnostic facilities.

In the post-colonial period there was no attempt at radical restructuring of health care services as per the framework provided by the Bhore Committee. On the contrary the aspects that contributed to inequality in health care were strengthened because of:

- the production of doctors for the private sector through state financing,
- the production of bulk drugs to supply at subsidised rates to private formulation units,
- disproportionate concentration of medical services in urban areas,
- financial subsidies by the state for setting up private practice and private hospitals and allowing large scale international migration of doctors and nurses.

All these factors, among others, have contributed to increase inequality in health care and underdevelopment of health in India.

The constitution of India has made health care services largely a responsibility of state governments but has left enough manoeuvrability for the Centre since a large number of items are listed in the concurrent list. And the Centre has used this adequately to expand its sphere of control over the health

sector.[4] Hence the central government has played a far more significant role in the health sector than demanded by the constitution. The health policy and planning framework has been provided by the central government. In concrete terms, the central government has pushed various national programs (vertical programs for leprosy, tuberculosis, blindness, malaria, smallpox, diarrhoea, filaria, goitre and now HIV/AIDS) in which the states had little say in deciding the design and components of these programs. The states have acquiesced to such programs due to the central government funding that accompanies them. These programs are implemented uniformly across the length and breadth of the country. Then there are the centre's own programs of family planning and universal immunisation which the states have to implement. Hence, central government intervention in the state's domain of health care activities is an important feature that needs to be considered in any analysis of public health care services.

The administrative structure of public health services in India is 'two-winged'. First, there is the secretariat of the health ministry and second there is the technical wing, which is called the directorate of health services. Both these wings are under the Ministry of health, the former under the Secretary of the Ministry and the latter under the Director General (Director in States). The directorate is subordinate to the secretariat. At the central government level there is a Ministry of Health and Family Welfare with Department of Health, Department of Family Welfare and Department of Indian Systems of Medicine and Homeopathy, and the Directorate General of Health Services. The Departments of Health, Family Welfare and Institutions of Indigenous Systems of Medicine & Homeopathy (ISM&H) each have a secretary with a hierarchy of additional, joint, deputy and under-secretaries looking after various programs of the three departments. The Directorate General is the technical wing and provides the requisite technical support for the various health programs. For some of the programs/schemes there are directors, advisors and commissioners and their deputies and assistants. This fact of an elaborate structure at the Central government level shows the extent of involvement of the centre in what is essentially the sphere of the provincial government. The same elaborate administrative structure (more or less) is repeated at the state level. There is a minister, secretary and a Director of Health with their deputies, assistants etc. in each state. To facilitate interaction between the central government and state governments there is a Central Council of Health and Family Welfare, which comprise the health ministers and secretaries from all states and a few nominated members. This council is also the primary advisory and policy-making body for health care in the country. The Planning Commission also has a health cell that supports this advisory and policy-making function besides preparing detailed plans for the health sector of the country.

[4] The Constitutional provisions (Schedule 7 of article 246) are classified into three lists, including a Concurrent list which both centre and states can govern but the overriding power is with the centre. The list here includes original entry numbers **Central List:** 28.Port quarantine, including hospitals connected therewith; seamen's and marine hospitals 55.Regulation of labour and safety in mines and oilfields **State List:** 6.Public health and sanitation; hospitals and dispensaries 9.Relief of the disabled and unemployable **Concurrent List:** 16.Lunacy and mental deficiency, including places for the reception or treatment of lunatics and mental deficients 18.Adulteration of foodstuffs and other goods. 19.Drugs and poisons, subject to the provisions of entry 59 of List I with respect to opium 20A.Population control and family planning 23.Social security and social insurance; employment and unemployment. 24.Welfare of labour including conditions of work, provident funds, employers' liability, workmen's compensation, invalidity and old age pensions and maternity benefits 25.Education, including technical education, medical education and universities, subject to the provisions of entries 63, 64, 65 and 66 of List I; vocational and technical training of labour.] 26.Legal, medical and other professions 30.Vital statistics including registration of births and deaths. (http://alfa.nic.in/const/schedule.html)

With efforts to decentralise governance many of the functions are being transferred to the district level under the Panchayat Raj Acts in various states. Under the health sector a very large domain has been suggested for local authorities to take over.[5] However, it must be noted that as yet the implementation of these various provisions is very poor, especially since fiscal decentralisation has not taken place. Wherever decentralisation has occurred, like in Maharashtra since the sixties, large local bureaucracies have also emerged at the district and taluka levels. But even in such cases the impact is poor as the healthcare services suffer from the same malaise as in places where there is no panchayat raj. [6]

These large bureaucracies at the centre and state level and in a few states even at the district level "direct and administer" the various health programs through officials and medical personnel at the district and lower levels and in metropolitan city hospitals. The large cities, depending on their population have a few state run hospitals (including teaching hospitals). At the district level on an average there is a 150 bedded Civil General Hospital in the main district town and a few smaller hospitals and dispensaries spread over the other towns in the district and sometimes in large villages. In the rural areas of the district there are rural hospitals, primary health centres and sub-centres that provide various health services and outreach services.

[5] An example of the Karnataka Panchayat Act is given here: **Panchayat level:** XVIII. Rural sanitation: (1) Maintenance of general sanitation. (2) Cleaning of public roads, drains, tanks, wells and other public places. (3) Maintenance and regulation of burning and burial grounds. (4) Construction and maintenance of public latrines. (5) Disposal of unclaimed corpses and carcasses. (6) Management and control of washing and bathing ghats. XIX. Public health and family welfare: (1) Implementation of family welfare programs. (2) Prevention and remedial measures against epidemics (3) Regulation of sale of meat, fish and other perishable food articles (4) Participation in programmes of human and animal vaccination (5) Licensing of eating and entertainment establishments. (6) Destruction of stray dogs. (7) Regulation of curing, tanning and dyeing of skins and hides. (8) Regulation of offensive and dangerous trades. XX. Women and child development: (1) Participation in the implementation of women and child welfare programmes. (2) Promotion of school health and nutrition programmes. XXI. Social welfare including welfare of the handicapped and mentally retarded: (1) Participation in the implementation of the social welfare programmes, including welfare of the handicapped, mentally retarded and destitute. (2) Monitoring of the old-age and widows pension schemes.
Taluk Panchyat level: XIX. Health and family welfare: (1) Promotion of health and family welfare programmes. (2) Promotion of immunisation and vaccination programmes. (3) Health and sanitation at fairs and festivals. XX. Women and child development: (1) Promotion of programmes relating to development of women and children. (2) Promotion of school health and nutrition programmes. (3) Promotion of participation of voluntary organisations in Women and Child Development programmes. XXI. Social welfare including welfare of the handicapped and mentally retarded: (1) Social welfare programmes including welfare of handicapped, mentally retarded and destitute. (2) Monitoring the Old Age and Widow's pensions and pensions for the handicapped
Zillah Panchayat level: XIX. Health and family welfare: (1) Management of hospitals and dispensaries excluding those under the management of Government or any other local authority. (2) Implementation of maternity and child health programmes. (3) Implementation of family welfare programmes. (4) Implementation of immunization and vaccination programmes. XX. Women and child development: (1) Promotion of programmes relating to development of women and children. (2) Promotion of school health and nutrition programmes. (3) Promotion of participation of voluntary organizations in women and child development programmes. XXI. Social welfare, including welfare of the handicapped and mentally retarded: Promotion of social welfare programmes, including welfare of handicapped, mentally retarded and destitute. (http://www.kar.nic.in/rdpr/acts-frameset.html)

[6] In a recent trip to Mizoram we visited a few PHCs and sub-centres. It was astonishing to see that they were well provided for, as well as optimally utilized by the local community. The districts we visited had one PHC per 7000-8000 population and a subcentre per 1500 population with reasonably good supply of drugs and well maintained and clean premises with most staff in position. Fifteen years ago we had visited PHCs in Nagaland and Meghalaya and they were functioning reasonably well. One feature of these areas is the absence of the private sector, apart from the fact that the health institutions are reasonably well provided. In contrast in the last ten years we have visited a number of PHCs, rural hospitals, sub-centres in Maharashtra, Gujarat, Rajasthan and Madhya Pradesh and invariably inadequate provision was a major concern. Rajasthan was perhaps a little better off and this may again have something to do with the smaller presence of the private health sector in this state.

At present, there are 17,000 hospitals (34 per cent rural), 25,670 dispensaries (40 per cent rural) and about one million beds (23 per cent rural) for the country as a whole[7]. In addition the rural areas have 24,000 PHCs and 140,000 sub-centres. However, when this data is represented proportionately to its population we see that urban areas have 4.48 hospitals, 6.16 dispensaries and 308 beds per 100,000 urban population in sharp contrast to rural areas which have 0.77 hospitals, 1.37 dispensaries, 3.2 PHCs and 44 beds per 100,000 rural population. The city hospitals and the civil hospitals are basically curative centres providing outpatient and in-patient services for primary, secondary and tertiary care. In contrast the rural institutions provide mainly preventive and promotive services like communicable disease control programs, family planning services and immunisation services; curative care in the rural health institutions are the weakest component in spite of a very high demand for such services in rural areas. As a consequence this demand is met either by the city hospitals or by private practitioners. Medical Education is imparted largely through state owned or funded institutions at a highly subsidised cost to the students. There are 165 recognised allopathic medical colleges in the country producing over 20,000 medical graduates every year; and out of these, 75 per cent are produced in public institutions. However, the outturn from these institutions does not benefit the public health services because 80 per cent of the outturn from public medical schools either join the private sector or migrate abroad. Here it would be in order to provide a brief description of the private health sector and health insurance coverage in India.

The private health sector in India, as indicated earlier, is very large, perhaps the largest in the world. In 1997 an estimated 68 per cent of hospitals, 56 per cent dispensaries and 37 per cent of beds were in the private sector. An estimated 75 per cent of allopathic doctors were in the private sector, about 80 per cent of them being individual practitioners. In the case of non-allopathic doctors over 90 per cent work in the private sector. Private health services, especially the general practitioners, are the single largest category of health care services utilised by the people. It is important to note here that in addition amongst persons practicing medicine as private practitioners a large number of unqualified practitioners also need to be included. Hence, the exact number of practicing doctors in the country is not known. From available data it is known that in year 2000 there were over 550,000 registered allopathic doctors and over 700,000 registered non-allopathic doctors. And out of this total of 1.25 million about 1.04 million were estimated to be in the private sector. Further, in both rural and urban areas a large number of unqualified practitioners exist and it goes without saying that they are all a part of the private sector. Beyond this information no other knowledge about the private health services sector is available.

The private health sector, especially the allopathic, constitutes a very strong lobby in India. There is virtually no regulation of this sector. The medical councils of the various systems of medicine perform only the function of registering qualified doctors and issuing them the license to practice. There is no monitoring, continuing education, price regulation, prescription-vetting etc., either by the medical councils or the government. The private healthcare sector is strongly backed by the private pharmaceutical industry (largely multinational), which again constitutes a very powerful lobby that has kept at bay any progressive policy initiatives, such as the recommendation of the Hathi Committee Report.[8] Pharmaceutical formulation production in India is presently

[7] Central Bureau of Health Intelligence.Directorate General of Health Services, Ministry of Health and Family Welfare. Health Information of India 2000 &2001.

[8] The Hathi Committee's recommendations pertained to removal of irrational drug combinations, generic naming of essential drugs, development of a National Formulary for prescription practice.

worth over Rs. 200 billion and over 98 per cent of this is in the private sector. Thus the private health services and the pharmaceutical industry are together organised into a network that perpetuates one of the most powerful private health sectors in the world.

Apart from the above a small section of the population, largely what is called the organised sector, that is those working in government, private industry and services have some form of health insurance coverage, either through state mandated social security like ESIS, CGHS, Maternity Benefit Scheme, and various other schemes for mine workers, plantation workers, beedi workers, cinema workers, seamen, armed forces, railway employees etc., or through employer provided health services or reimbursements. This population estimated to be about 12 per cent of the country's population might be said to have right to healthcare, at least during the working life of the main earner in the family.

Given this domineering position of the private health sector and the context of large-scale poverty the health outcomes are not expected to be very good. There have been substantial improvements in health outcomes such as infant mortality rate (IMR), crude birth rate (CBR), crude death rate (CDR) and life expectancy over the years but globally the position of India has not changed significantly vis-à-vis these indicators. In fact the latest Human Development Report shows a downward trend in India's global ranking.[9]

This climb down and slowing of growth in India's human development score is perhaps linked to the declining investments and expenditures in the public health sector (as also the social sectors as a whole), especially in the nineties. In the mid eighties public health expenditure had peaked because of the large expansion of the rural health infrastructure but after 1986 one witnesses a declining trend in both new investments as well as expenditures as a proportion to the GDP, as well as a percentage of government's overall expenditures. In sharp contrast out-of-pocket expenses, which go largely to the private health sector, have witnessed unprecedented increases.

Current Scenario: Health

Communicable diseases not only continue to be the single largest cause of mortality but prevalence of many diseases like tuberculosis and malaria has increased and diseases like AIDS, leptospirosis, dengue etc. have got added to the list.

Public investment in the health sector since the Structural Adjustment Program (SAP) has declined and this is reflected in drastically reduced capital expenditures and no further expansion in the public health infrastructure. In addition, revenue expenditures on health have declined both as a proportion to the GDP as well as a percentage of total public spending, and within this reduced expenditure allocation inefficiencies have increased especially after the 5th Pay Commission.

The above has further reduced the credibility and acceptability of the public health system and one sees declining utilisation rates of public health facilities. On the other hand the dominance of the private health sector is increasing but with absolutely no regulation and minimum standards being followed. The medical profession pays no heed to self-regulation or ethics and has never looked at the possibility of an organised system of healthcare. In fact the profession is losing control to the corporate sector, which is now

[9] India's human development index rank is down from 115 in 1999 to 124 in 2000, though still better than the 1994 rank of 138. India is on the fringe of medium and low HDI group of countries. India's improvement in the HDI in the last 25 years has been marginal from a score of 0.407 in 1975 to 0.577 in 2000 - this works out to an average increase of 1.6 per cent per annum. The slowing down of growth is shown in the table below: (Source: UNDP HDR, various years)

looking beyond the hospital sector at not only diagnostics but also consultant services and general practice. Such a scenario is bound to impact on costs and increase the burden on the patients. Such a situation is not good for 70 per cent of the country's population that lives in poverty or at subsistence level.

Current Scenario: Disability

As per 1991 NSSO 47th Round estimates about 1.9 per cent of the population, i.e., 19 million persons today have physical or sensory disabilities which include visual, speech, hearing and locomotor disabilities. Sex differentials show that physical disabilities are higher among males by one-third. In rural areas it was nearly one-fifth higher as compared to urban areas.

Mental disabilities affect over 2.5 per cent of the population as revealed by various surveys, it being over 3 per cent for children in age group 0-14 years. Another one percent of the population is mentally ill.

As regards the State-wise distribution of physical disability, the States which have higher prevalence rate, than the national average, were Andhra Pradesh (24.98/1000), Himachal Pradesh (28.70/1000), Karnataka (21.31/1000), Madhya Pradesh (27/1000), Orissa (23.06/1000), Punjab (29.36/1000) and Tamil Nadu (23.72/1000).

Among the physically disabled 25 per cent of the disabled people in the rural areas and 20 per cent in urban areas suffered from such severe disabilities that they could not perform activities of self-care and daily living even with aids/appliances. The NSSO surveys are considered to be underestimates by many people involved with working on disabilities.

Social disabilities like gender, caste and community also have significant health consequences. Thus women, dalits, adivasis, religious minorities, sexual minorities etc. suffer disabilities due to the violence they face, the social and economic discrimination they encounter etc. While there may be constitutional and program-based safety nets for many such groups in reality these have failed to improve their situation. The future for many of these groups has more adversities than hope if present trends continue.

Apart from leprosy, HIV/AIDS has got added on as a disease based disability.

The increasing elderly population is another group which would need disability support in the future.

Rehabilitation for all disability groups is extremely inadequate and needs a great deal of attention from the state, corporates and civil society.

The Changing Political Economy

India is knocking at global markets. Since the mid-1980s India has rapidly integrated with the world economy and now faces not only the ups but also the downs as protection of the internal economy has become a thing of the past. The globalisation of India was speeded up under the Structural Adjustment Program designed with World Bank's assistance to reform India's economy. A large part of the middle class has certainly benefited from the SAP and related initiatives but overall poverty has not declined - if at all it has added to the misery of the already impoverished masses.

Health sector reforms did not stay far behind. But the question is, were they reforms in the positive or progressive sense? In the name of reforms, again under the aegis of the World Bank, and other bilateral and multilateral agencies like USAID, DFID, WHO, UNICEF etc. public health investment became even more selective and targeted at selected populations. Thus family planning and immunisation services, and selective disease programs like HIV-AIDS, acquired an even more central position in public health care and other concerns like curative services, hospital care, malaria, tuberculosis, maternity services, etc.

lost further ground. The new priorities were not priorities determined by those who needed health care but by global agents of change who were in the business of adjusting India to the world economy!

Economic reforms towards liberalisation began in the early 1980s. This is important to note because often there is a tendency to look only at the post-1991 period. Data available up to now clearly show that economic performance of the 1980s far outweighs that in the 1990s. The underlying fact about this is that in the 1980s there was no structural adjustment or World Bank dictat. The classical 'Hindu' rate of growth[10] in the eighties had doubled from 3 per cent to 6 per cent, without much inflation and with declining levels of poverty. Thus we were already liberalising our economy and speeding up growth without the World Bank aiding the process.

In fact, the post -reform (1991) period slowed down growth, increased poverty and inflation, and reversed many trends of the 1980s. No doubt it caught up towards the mid-1990s, but it has not yet surpassed the achievements of the 1980s. Thus in the eighties India was developing rapidly with a gradual globalisation process and with the advantage of its inner strength which insulated it from global shocks. In the 1990s there was rapid globalisation that exposed India to global fluctuations; if India survived the Asian shock, which destroyed Indonesia and other Southeast Asian economies, it was because of its sheer size and the strengths of its own local markets. Another fact to contend with is the continuing dependence of over two-thirds of the population on agriculture and 70 per cent of the population living in rural areas. Since the larger impact of macro-economic reforms is on the urban-industrial sector, which integrates globally with much ease, the rural population in a sense still has relative protection from global impacts. Further, it is the consistent good performance of agriculture that has helped ward off the severities of SAP, which many other countries have faced. In addition, India's strong investments in the past in rural development, especially employment guarantee programs and agricultural subsidies aided in reducing the adverse impact of SAP. And this is not likely to change thanks to the strong farm lobby that is in fact demanding greater investments and subsidies for the rural economy. Thus at one level India is much more exposed to the global market with increasing vulnerability. But at another level it continues to enjoy an inner strength and autonomy because of its sheer size, its large rural-agricultural population and a large local market of its own, despite the fact that politically the situation is very fluid. This background is important for understanding the impact and changes in the health sector.

Impact of Changing Political Economy

While the existing situation is very dismal, the changing political economy does not show too much promise of change for the betterment of health and disability, unless of course there is a radical transformation in political commitment. For this to occur, the support of civil society pressures and demands for a transformation of the healthcare and rehabilitation dispensation will be needed.

The changing political economy demands reduced state participation in the economic spheres both in terms of policy and intervention. Yet, at the same time the new political economy has failed to strengthen the welfare role of the state. Under SAP and other related measures, the state intervention in the economy declined but so have investments, expenditures and interests in the social sectors. This trajectory of growth has worsened the situation for the poor and subsistent population of the country.

[10] A phrase attributed to economist Raj Krishna who used it to illustrate his conclusion that the rate of growth had remained unchanged at 3.5% in the three decades after independence.

One very clear impact is declining state investments in the health sector. With rising debt burdens of the state the social sectors are the first to be axed. There has been a declining trend since 1991 in social sector expenditures, especially by the Central government and this is best reflected in compression of grants to the states for social sector expenditures. Health care expenditures too have been affected both in quantitative terms (declining real expenditures) and qualitative terms (increasing proportion of establishment costs and declining proportion on medicines, equipment, maintenance and new investments).

Another very striking impact is the rapidly rising cost of medicines. With greater dependence on the private health sector even by the poor this has meant extreme hardship. With the drug price control virtually on its way out and with India having signed the WTO treaty on IPR we are moving closer to international prices of drugs. The combined effect of the above facts makes a deadly mixture that results in reduced access of the poor to health care. As stated above the historical dominance of the private health care sector in India in provision of ambulatory care and rising costs could spell disaster for the poor given the fact that the State is gradually reducing its responsibilities in providing health care. Since the poor too have been active users of private health care their dependence on it makes the case for "right to health care" an increasingly distant dream on the political agenda.

At the global level World Bank is propagating selective care for selected (targeted) populations under the public domain. The WHO too has dropped its Health for All commitment and fallen in line with the World Bank thinking. This global pressure on the Indian State is evident through its policies of focusing on selective services, for instance reproductive and child health (RCH) and AIDS receive overriding support over primary health care or basic referral services.

Another trend that further reduces access is the increased corporate control of health care. New medical technologies have helped complete the commodification of health care and this has attracted increased interest from the corporate sector, which has jumped into the health care business in a very big way. With these kinds of pressures the thinking has to change radically if we believe in universal access to healthcare with equity within a rights-based approach. Achievement of this goal implies that future health priorities have to be defined towards developing an organised system of healthcare that is rights-based.

At the global level, right to healthcare is being intensely debated in the context of the International Covenant on Economic, Social and Cultural Rights (ICESCR). Article 12 of ICESCR talks about the right to the highest attainable standard of health which is elaborated in General Comment 14. Civil society groups, especially in developing countries have shown increasing concern on issues of declining access to healthcare and the Peoples Health Movement (PHM) has taken up this issue in a big way. In India the PHM India chapter, the Jan Swasthya Abhiyan, has recently launched a national level initiative to demand a right to healthcare through an organised universal access system for basic health services. The National Human Rights Commission has supported this initiative through organisation of regional public hearings to illustrate denial of health care cases as well as to highlight issues and concerns in formulating a strategy towards establishing the right to health care.

Overview of the Present Volume

The present volume is an effort to bring together these issues and concerns and provides a situational analysis of the healthcare situation in the country. While efforts have been made to cover all critical dimensions, one cannot stake a claim to this book being a comprehensive review of the state of healthcare in India. We accept the

limitations of the volume and have been unable to cover issues like non communicable diseases, disabilities, healthcare in hazardous occupations, health care for vulnerable populations like people in conflict areas, displaced people and the homeless.

The volume starts with a review of National Health Policies, followed by an exploration of the historical context in which the public health system in India evolved. The growth of health services in India can be chronicled over four periods from independence to the present day, with reference to the three social roles the health services were expected to play, which were Public Health Provisioning, Policy Formulation and Planning for the Health Sector, and Early Detection of Social Pathology.

At Independence, the recommendations of three Committees were available as a guide to use while planning the health services:

The Health Survey and Development Committee chaired by Sir JC Bhore gave its report in 1946. The recommendations were based on the principles of equal access, focus on rural areas for service provision, comprehensive preventive and curative services, a system led by the most "highly trained type of doctor". Major public health problems were to be controlled by vertical programs and 15 per cent government expenditure was to be on health.

The Chopra Committee on Indian Systems of Medicine (ISM) recommended the mutual exchange of knowledge between Allopathy and ISM to bring about enriched integrated knowledge systems in 1946.

The Sokhey Committee (1948) in contrast to the above two recommended the development of services and manpower from the grassroots level upwards. Youth from each village were to be trained as health workers and trained further to become doctors based on their performance.

The first phase showed a period of growth at all levels. A network of health institutions were put in place, and the improvement of standard of living and economic conditions brought about a decline in the mortality rates. The second period showed growth of village level services with the creation of multi purpose workers and an attempt at reorienting the medical education towards rural conditions. The third phase saw a boom in the proliferation of healthcare institutions, both in the private and the public sector. With international funding for specific programs, public health became preventive medicine. By the end of the 1980's, the public health system was in a crisis. The 1990's onwards showed growth at the secondary and tertiary levels with an increased felt need for hi tech services, but a decline in accessing healthcare and treatment.

India's fight against communicable diseases is marked by the adoption of western influenced biomedical interventions as the sole interventions with little importance given to overall socio-economic development. This resulted in a vast amount of resources being committed to "vertical programs" thereby leading to a drain on resources for the overall development of public health services.

The National Health Programs of India are a reflection of the reductionism and technical quick fix solutions, which characterise the health system we inherited from the British. They medicalise illness and fail to address the socio-economic and political causes underlying that illness.

A number of vertically oriented disease control programs were adopted by the Government of India and were preferred for their quick results, which provided the government freedom from the responsibility of setting up a sustainable network of health services, and gained favour with international funding organisations.

A review of the national health programs in place for the control of malaria, tuberculosis and HIV/AIDS, in addition to the immunisation program indicate the shortcomings of such a vertical approach. In addition to being dependent on foreign resources and technology, these programs ignore the local determinants fuelling ill health, which also need to be addressed.

Community Health Worker (CHW) programs play a vital role in the public health system, however, the CHW programs started by the government often fail. The reasons for failure are varied and are often related to unrealistic expectations for the workers with respect to designated tasks and geographical outreach. To meet current needs of the rural population, we would need to increase the workforce by about 5 times, and even then, it would not solve the problem of geographic outreach.

The mid 1970's saw the emergence of CHW programs started by voluntary organisations and the NGO sector. It was found that a team of trained and guided health workers could significantly impact health outcomes irrespective of literacy levels and educational qualifications.

A review of different CHW programs shows that factors necessary for success are: strong leadership providing support and training throughout the program, a duration of at least 5-10 years, a good quality of referral linkages where higher degrees of illness can be handled and women as health care providers.

NGO based CHW programs are dependant on external funding since they have no cost recovery systems in place, and this is a serious threat to their sustainability. On the other hand, government programs fail due to loopholes in recruitment, poor referral networks, and over-emphasis on curative care.

CHW programs have a role to play in health sector reform. In addition to providing primary education and health services, they have emerged as a movement for health rights. Lest we forget, CHW programs are NOT complete in themselves and a parallel effort to restructure and strengthen public services is necessary.

Population policy has occupied a premier position in India's health policy and planning. India's family planning program, one of the first official family planning programs in the world, has undergone a series of changes and has adopted different approaches over time. The program depended on the introduction of new contraceptive technology with each idea working for some time until it fizzled out. Over time, the Government of India introduced a paradigm shift in the Family Planning Program strategy, which was reflected in the National Population Policy 2000, which endorsed a voluntary target free approach, which was to be devoid of incentives and disincentives.

The current policy scenario, however, shows an alarming variance to the ideals expressed above. Recently a number of states like Madhya Pradesh, Rajasthan, Andhra Pradesh and Haryana introduced a two-child norm policy linked with a series of draconian measures. These included non-access to school for the third child, non-eligibility for food through the public distribution system for families with more than 2 children, etc. Although a number of women's rights groups and health related groups were vociferous in their protest to the National Human Rights Commission, the Government of India announced a bill seeking to restrict people with more than 2 children from contesting elections.

Policies like those discussed above violate principles of equality and justice, are demographically incorrect, and fundamentally represent a distorted view of the relationship between population and resources.

India is in a phase of demographic transition with a sustained and substantial decline in

fertility. Investment in social sectors like health, education, employment, food etc and meeting the unmet needs for family planning are required to facilitate the decline in fertility. However the focus remains fixated on family planning, allocations towards which are increasing compared to public health, which shows a proportionate decrease in budgetary allocations.

The disturbing trend of masculinization of sex ratios at birth and among children will only be further fuelled with the two-child norm and further encourage sex selective abortions.

Child Health occupies a special place in public health for a number of reasons including the special vulnerability of children to diseases, which are most amenable to preventive action. As a result, health services envisaged by children's health programs have been centred on immunisation and supplementary feeding, with some attention to promotion of breast-feeding and management of diarrhoea and pneumonia. The Integrated Child Development Scheme (ICDS) is the largest such scheme and gobbles up most of the resources earmarked for childcare. Started in 1975 to serve the population under the age of 6, its objective included preventive health services, as well as pre-school non-formal education. Unfortunately, there remain gaps in the infrastructure set up through the scheme, staffing, equipment, medicine and extent of outreach.

The National Crèche Scheme was also started in 1975, but according to the author's estimation, children in crèches are approximately a minuscule 0.7 per cent of the children needing these services. Health services are supposed to include immunisation supplementary feeding, health checks, and medicines but evaluation of the crèche scheme by NIPCCD showed lacunae in all components of the scheme.

The School Health Committee started the School Health and Midday Meal Program in 1960. Although some states have implemented these programs, there remains a lot to be done to ensure these are sustained as routine services for all school going children.

Reproductive Health Services in India have historically been techno centric, based on demographic goals, and focused on women's fertility, particularly the poor. Population size and fertility control captured the minds of Indian Nationalists and Colonialists who felt the poor caused their own poverty. Following Independence in 1952, amidst growing concerns that an overwhelming population hampered economic growth and development, the Indian State became the first in the world to initiate an official Family Planning Program. The 1970's witnessed the emergency with coercion reaching its zenith, while the 1980's ushered in the "educational and wholly voluntary approach". Following the ICPD in Cairo in 1994, India's Family Planning Policy underwent a paradigm shift from the existing method specific target oriented approach to an approach towards reproductive health through women's rights and empowerment.

The Reproductive and Child Health (RCH) Program adopts a comprehensive approach which provides a package of services for mothers, children and adolescents. However, an assessment of the RCH carried out in five states, brought to light the problems women face in accessing these services. These included: inconvenient service timings, class and caste barriers, physical and verbal violence, and low priority for gynaecological problems, poor counselling and referral services- the RCH leaves a lot to be desired. The burden of responsibility for family planning falls on the women, since there is no inclusion of men in the program. The RCH leaves out of its domain, other important problems, not related to pregnancy, like occupational health, domestic violence, and mental health.

There is an urgent need for a comprehensive Mental Health Policy to meet the needs of people living with mental illness. Services and laws remain outdated and mental health needs have to be brought on to the health agenda.

Gender based violence is regarded the world over as a public health issue, but in India it still lacks the attention it deserves in the public health scenario.

Females are vulnerable to violence throughout their lifecycle from the pre-birth risk of sex selective abortions to inhuman treatment of elderly widows.

A number of reasons make the public health system an important site for the implementation of anti violence intervention programs. For victims of violence it is often the first place of contact with the health system, only public hospitals can register medico legal cases and private practitioners often avoid suspected cases of violence.

Victims face a number of barriers in the system, mainly staff who are inadequately equipped to recognise and deal with violence.

Intervention programs need to be at multiple levels; primary prevention like media, public awareness campaigns about positive gender roles and the status of women in society help prevent violence by striking it at the root. Secondary prevention addresses harm already done and minimises further damage, while tertiary prevention would be rehabilitative services, like vocational training for gainful employment etc.

The entire discussion on public health and making primary health care accessible to all has always been centred around allopathy, synonymous with "modern" western medicine and has sidelined or totally ignored the systems of medicine that were existing in the country before colonial rule. Indeed, these systems, in spite of being very different from each other, are all clubbed together under a large head: Indian Systems of Medicine (ISM). ISM includes ayurveda, unani, siddha, naturopathy, amchi, to name just a few.

The health culture of our country is therefore characterised by a pluralistic nature with an array of medical systems available to the consumer, but with a distinct hierarchy of systems in terms of recognition and patronage.

It was found that while allopathic practitioners were urban based, and tended to cater to wealthier sections of society, non allopathic care givers tended to meet the needs of the rural population as well as poorer sections of society in the urban areas. This led to the belief that non-allopathic systems fill a geographical and social gap left by allopathy. Even within ISM, there is the formal state recognised sector and the comparatively more accessible folk care sector made up of spiritual and ritual healing. The integration of ISM with allopathy to facilitate service delivery to underserved areas was also strongly resisted by medical associations thereby further compartmentalising the system.

Contrary to the beliefs expressed above, the state wise distribution of non-allopathic systems throughout the country is related more to historical and cultural factors than to the distribution of allopathic care. Therefore, it is found that states having more allopathic facilities than other states tend to also have more non-allopathic facilities, showing that in general there is a state wise concentration of health care facilities.

The widely unregulated pharmaceutical industry has benefited from globalisation with medicinal plants being exported to countries where people are now switching to more "natural" medicines, but draining the resources of raw material for domestic use.

In order to ensure universal access to care, it is important to recognise the knowledge and

skilled people in the non-allopathic systems and work toward integrating all systems with a sharing of resources so that the overall health personnel force can be expanded and enriched.

The relationship between the extent of equitable access to healthcare and the degree of public financing of healthcare is well known. Analysis of outcome indicators and percentage of public investment in health in a number of countries shows that indicators are poorer where public investment is low. The scenario in India reflects this observation, where, declining public expenditures over the 1980s, which further accelerated in the 1990s, led to a stagnation of the declining infant mortality rates and a resurgence of a number of communicable diseases.

The decreased public health spending is leading to incapacitated public health facilities, where, due to insufficient funding, the staffing levels are far below acceptable norms, there is a constant shortage of consumables and all this is housed in dilapidated buildings.

Inefficient use of the meagre funds like salary increases without budgetary increases compound the constraints faced by low budgetary allocations. New policies encouraging user fees lead to a major chunk of expenditure being out of pocket, and pushing poorer sections of society into indebtedness following any catastrophic illness or an episode of hospitalisation. The scarce funds are distributed over an urban-rural hierarchy with curative services being concentrated in urban areas, while rural areas are only given preventive and promotive health.

As the public health sector deteriorates, the largely unregulated private health sector is growing in leaps and bounds. Up to 85 per cent of health expenditure is privately funded, of which the bulk is out of pocket, causing most of the burden to fall on households. In order to ensure health care as a basic right, it will be necessary to reorganise the health sector, by ensuring primary health and improving efficiency of resource allocation, strengthening referral linkages and regulating the private health sector.

Access to health care is defined as the use of healthcare by those who need it. Studies show that gender, social geography, social groups and class influence access. Inequities in access to healthcare lead to systematic differences in health outcomes within different subgroups of population.

Reported morbidity and ailments are often under reported, one of the factors being the perception of health. Therefore observations regarding class differentials may not be as conclusive as the sharp differentials seen in rates of hospitalisation, where rates are much higher for urban populations and those belonging to higher income groups. Untreated ailments are higher among women, the rural population and show class differentials indicating that treatment depends on the economic background of the person and the exposure to healthcare services.

The public hospitals are accessed more for admissions and inpatient services, while private practitioners often provide ambulatory care. The finding that strengthens the argument for universal access to healthcare being a basic right is the fact that the financing of most healthcare in India is through out of pocket payments, with source of money being current incomes, savings and often sale of assets. In fact healthcare expenses push a large number of people into debt, which is probably why rates of hospitalisation and reported morbidity are much lower in poorer populations.

Ensuring universal access will mean special efforts to include the most vulnerable and marginalized populations within the fold of publicly funded health services.

The private sector in India has managed to permeate through primary, secondary and tertiary levels of healthcare, in the urban and rural areas, in all systems of medicine. The burden of financing falls on the shoulders of individual consumers, as 80 per cent of health expenditure is out of pocket. Privatisation is not only limited to healthcare delivery but has also penetrated the medical equipment and pharmaceutical industry, with multi national and national corporate companies dominating. Education and training have not been left out in this widely spread and rapidly progressing phenomenon.

Although showing state wise and state-wide variations, the private sector is skewed towards urban areas, and in rural areas it has flourished in economically forward regions. It tends to be very hi tech oriented, with corporate hospitals investing increasingly large amounts in medical equipment, particularly diagnostic imaging. In fact, investment on imaging equipment far exceeds that on laboratory equipment, and makes up 50 per cent of total investment on equipment.

Not only is the private sector omnipresent, it is also largely unregulated, thereby jeopardising the quality of care provided. A study in Mumbai showed that most nursing homes are poorly maintained and are staffed with inadequately trained personnel. There are no safe waste disposal facilities, physical standards are poor in quality, and none of them were registered with any local authority. Physicians in private practice are often driven to over prescription of certain medications, irrational use of diagnostics and splitting practices. Many physicians employed in government hospitals extend their practice into private clinics and nursing homes. There is an urgent need to regulate the quality and magnitude of the private sector and harness its resources to ensure access to all sections of society.

The judiciary has a vital role to play in ensuring access to essential services for all citizens, irrespective of their ability to pay. At present, there is a gradual withdrawal of the state from its role in providing health care through the public health system, and an increasing investment in hi tech, expensive private health care.

The right to health and the availability of health care are issues that have been addressed all over the world. The United Nations has adopted various resolutions protecting health rights of people like the Universal Declaration of Human Rights and the ICESCR. The World Health Organization Constitution states:

> The Constitution of India also covers health and healthcare, but does not explicitly recognise right to health as a fundamental right. The Directive Principles of State Policy cover various health related issues like provisions for just and humane conditions of work, wages for workers, level of nutrition and living conditions for workers, protection of environment etc.

The Supreme Court has passed a number of judgements dealing with right to access to medical treatment under various conditions ranging from the right to healthy life to right to privacy as a component of healthcare. Although these judgements support the right to health, the actual means for enforcing this right elude the system. Health having many dimensions and therefore many possible definitions, the right to health is a subjective issue to address. However, the right to health care, ensuring access to appropriate and affordable healthcare including necessary diagnostics and essential drugs can be pursued since health care is amenable to implementation of judicial orders.

In a country that is a major player in the international pharmaceutical market, supplying drugs to other countries at competitive rates, drugs remain over priced and unaffordable to the majority of Indians – health care is the second leading cause for

impoverishment and poverty in India. Estimates show that 30 per cent of morbidities go untreated because of poverty. Those depending on the public sector for care find that it is not only urban biased but also burdened with inequities in quantity and quality of essential drugs. Studies show that drug supplies to Primary health centers need to be doubled to ensure quality care to people accessing public services; predominantly the poor and middle class. Privatised accessibility to drugs has nurtured the growth of irrational drug combinations, and highly priced branded drugs, which synergize to waste a lot of patients' money.

Over the last 15 years, the Indian government has decreased price controls, allowing pharmaceutical to engage in rampant profiteering. The number of drugs under price control has decreased from 347 in 1979 to 76 in 1995. Relaxing of price control was based on the assumption that competition in the free market economy would drive down prices, but this is not happening. Shockingly, drugs not price controlled include drugs used for the treatment of tuberculosis, malaria, diarrhoea, hypertension, coronary heart disease, and epilepsy, while those under price control include hazardous drugs like analgin, outdated ones like sulphadimidine, and non essential drugs like vitamin E.

Lax regulations have led to profiteering by drug manufacturers, traders and retail pharmacists. The treatment of common ailments can mean days or weeks of labour/ work to purchase drugs.

The problem of accessibility is further complicated by substandard drugs, which flourish due to lax enforcement of laws, paper printing technology, which aids counterfeit, widespread corruption, and conflict of interests between stakeholders.
There are a number of initiatives to improve access to essential drugs like one where NGOs supplying generic drugs and pooled procurement in the public sector, an effort currently being carried out by the state governments of Tamil Nadu, Orissa and New Delhi.

Making right to *health care* a fundamental right is an important step in the overall goal of *health* as a human right. In reviewing healthcare in India, from various angles, we have tried to present a picture of where we stand today, and accept that the review could not be as comprehensive as we would have ideally liked. We still hope this volume adds to the momentum of the campaign in making Health care and thereby, Health, a Reality for All !

SECTION 2
PUBLIC HEALTH POLICIES AND PROGRAMMES

Historical Review of Health Policy Making

Ravi Duggal

Introduction

Structured health policy making and health planning in India is not a post-independence phenomenon. In fact, the most comprehensive health policy and plan document ever prepared in India was on the eve of Independence in 1946. This was the 'Health Survey and Development Committee Report' popularly referred to as the Bhore Committee. This Committee prepared a detailed plan of a National Health Service for the country, which would provide a universal coverage to the entire population free of charges through a comprehensive state run salaried health service. Such a well-studied and minutely documented plan has not as yet been prepared in Independent India.

The Bhore Committee proposals required implementation of structural changes in the then health care system, and had they been implemented they would have radically altered health care access and health status of the Indian masses, especially the 80 per cent population residing in rural areas. It is only an embarrassment for the Indian nation that more than half a century later there is no evidence of development of health care services to a level that the Bhore Committee regarded as a minimum decent standard. And neither has the health status of the masses altered very significantly – both in terms of the technology and means available as well as in comparison with developed countries today. The gap then and now has not changed much.

Health services in India today in terms of accessibility are as inadequate and underdeveloped as they were during the time of the Bhore Committee. The analysis of the health situation by the Bhore Committee in the early forties would hold good if a similar enquiry were undertaken today, over half a century later. Instead of the National Health Service that the Bhore Committee had envisaged, which would be available to one and all irrespective of their ability to pay, further commodification of health care services took place strengthening the operation of market forces in this sector. The enclave pattern of development of the health sector continues even today - the poor, the villagers, women and other underprivileged sections of society, in other words the majority, still do not have access to affordable basic health care of any credible quality.

Universal coverage of the population through some health plan is historically well established today, whether this is through health insurance or state run health services. There is no developed country, whether capitalist or socialist, which has not insured through either of the above means or a combination a minimum standard of health care for its population. In socialist countries the state provides health care, among other 'social services', as a basic right of the citizen. In advanced capitalist countries social security has evolved under the concept of a welfare state and health care is one of the prominent elements. However, such assured universal coverage of health care has not emerged in any satisfactory manner in most underdeveloped countries, including India. "The underdevelopment of health and health services (in these countries) is brought about by the same determinants that cause underdevelopment in general - the pattern of control over resources of these countries in which the majority of population has no control over their resources."[1] But given a political commitment some form of a National

[1] Navarro, Vicente : 'Introduction' in V. Navarro (ed) Imperialism, Health and Medicine, Baywood, New York, 1981

Health Service can be evolved in these countries.

Modern medicine and health care were introduced in India during the colonial period. This was also a period that saw the gradual destruction of pre-capitalist modes of production in India. Under pre-capitalist mode of production institutionalised forms of health care delivery, as we understand today, did not exist. Practitioners who were not formally trained professionals but inheritors of a caste-based occupational system provided health care within ones village. This does not mean that there was no attempt at evolving a formal system. Charaka and Sushruta Samhitas, among other texts, is evidence of putting together a system of medicine. Universities like Takshashila, Nalanda and Kashi did provide formal training in Indian medicine.[2] But the little evidence that exists shows that such structured medicine existed mostly in towns around the courts of the rulers; and in the countryside healers operated as practitioners of what we term today as 'folk medicine'

However, the institutions that functioned as hospitals were more in the nature of *punyasthanas, dharmashalas, viharas* and *maths*. They were the Indian equivalent of Western alm-houses, monasteries and infirmaries which were provided with stocks of medicine and lodged the destitute, the crippled and the diseased who received every kind of help free and freely.[3] Similarly, during the Mughal Sultanate the rulers established such hospitals in large numbers in the cities of their kingdom where all the facilities were provided to the patients free of charge.[4] These activities were financed not only by the kings but also through charities of the rich traders and wealthy persons in the kingdom.

Hence, in the pre-colonial period, which coincides with the pre-capitalist period, structured health care delivery had clearly established three characteristics. Firstly, it was considered a social responsibility and thus state and philanthropic intervention was highly significant. Secondly, the services that were provided by these facilities were provided free to all who availed them or had access to them. Caste, class and occupation did however limit access. And thirdly, most of these facilities were located in towns thus projecting a clear urban bias.

During the colonial period hospitals and dispensaries were mostly state owned or state financed. The private sector played a minor role as far as this aspect of health care delivery was concerned. However, the private health sector existed in a large measure as individual practitioners. The earliest data available on medical practitioners is from the 1881 census, which records 108,751 male medical practitioners (female occupation data was not recorded!). Of these 12,620 were classified as physicians and surgeons (qualified doctors of modern medicine) and 60,678 as unqualified practitioners (which included Indian System Practitioners).[5] In addition there were 582 qualified medical practitioners serving in army hospitals (71). However, the census data does not reveal the proportion of private practitioners. The earliest data available for private practitioners is for the year 1938 when an estimated 40,000 doctors were reported to be active. Of these only 9,225 or 23 per cent were in public service and the rest in private practice or private institutions.[6]

---

[2] Jaggi, 1979: XIII, 1-3

[3] Jaggi, O.P.: Western Medicine in India – Public Health and it Administration, Vol XIV of History of Science, Technology and Medicine in India, Atma Ram and Sons, New Delhi, 1979

[4] Ibid.

[5] Census – 1881: Census of India 1881 Vol III, GOI, Delhi, 1883

[6] Bradfield, EWC: An Indian Medical Review, GOI, New Delhi, 1938

The Bhore Committee Report corroborates this when for 1941-42 it reports 47,524 registered medical practitioners in India (17,654 graduates and 29,870 licentiates).[7] Of these only 13,000 or 27 per cent worked in government and other agencies (including private institutions) and the remaining were in private professional practice (ibid. I.13-14). Besides, there were practitioners of non-allopathic systems, both of the formally trained variety and the informal inheritors of medical practice. One estimate reveals that there was one *vaid/hakim* per 4285 population in 1868 i.e. about 47,000 known indigenous practitioners.[8]

This clearly shows that the private health sector was fairly large and well established. It also indicates the early commodification of health care delivery, which is inevitable under capitalism. Given the racial and urban bias of the State health services[9] this large group of private practitioners must have catered to a large chunk of Indians who didn't have access to the State services but who were able to muster resources to utilise the services of private practitioners.

Eighteenth October 1943 marks a watershed in health policy making and health planning in India. It was a great historical moment. In the midst of World War II and in succession to the Quit-India movement the Government of India (Central Government of British India Provinces) announced the appointment of the Health Survey and Development Committee under the chairmanship of Sir Joseph Bhore. Its secretary was Dr. K.C.K.E Raja and one of the joint secretaries Dr. K.T. Jungalwala. Some of the well-known members included Dr. J.B. Grant, Dr. B.C. Roy, Pandit P.N. Sapru and Dr. A.L. Mudaliar. The terms of reference of this committee, popularly referred to as the Bhore Committee, were simple: (a) broad survey of the present position in regard to health conditions and health organisation in British India, and (b) recommendations for future development.[10]

The letter of appointment of the Committee further stated, "A survey of the whole field of public health and medical relief has not hitherto been attempted. The immediate necessity for initiating such a survey has arisen from the fact that the time has come to make plans for post-war development in the health field *(A Post-war Reconstruction Committee, that later grew into the Planning and Development Department was set up in 1943 to make 5 year Plans for India's development).* The Government of India considers that such plans should be based on a comprehensive review of the health problem. One of the difficulties with which the committee will be confronted is that of finance. Financial considerations clearly cannot be ignored. Plans based on assumption that unlimited funds will be available for recurring expenditure will have little practical value. On the other hand it would be equally unwise to assume that expenditure on health administration will in the future be limited to the sums that were expended in the pre-war years. It is desirable, therefore, to plan boldly, avoiding on the one hand extravagant programmes which are obviously incapable of fulfilment and on the other hand halting and inadequate schemes which could have no effect on general health standards and which, would bring little return for the expenditure involved".[11]

Prior to this in 1938 the Indian National Congress established a National Planning Committee (NPC) under Jawaharlal Nehru. One of its sub-committees was on National

[7] Bhore, Joseph, 1946 : Report of the Health Survey and Development Committee, Volume I to IV, Govt. of India, Delhi
[8] Indian Medical Gazette: Editorial, III.87, 1868
[9] Jeffery, Roger: The Politics of Health in India, University of California Press, Berkeley, 1988.
[10] Bhore, Joseph, 1946 : op. cit.
[11] Ibid.

Health under the chairmanship of Col.S.S.Sokhey. Its report, published in 1948, was sketchy compared to the Bhore Committee Report – it was not as well studied and it lacked a detailed analysis of the existing health situation as well as of the future plans. In fact, it borrowed its analysis of the health situation from the Bhore Committee and also concurred with most of its recommendations.[12]

On the basis of an interim report of the National Health sub-committee presented to the NPC in August 1940, the NPC resolved that:

(a) India should adopt a form of health organisation, in which both curative and preventive functions are suitably integrated, and administered through one agency.
(b) Such an integrated system of health organisation can be worked only under state control. It is, therefore recommended that the preservation and maintenance of the health of the people should be the responsibility of the state.
(c) There should ultimately be one qualified medical man or woman for every 1000 population, and one (hospital) bed for every 600 of population. Within the next ten years the objective aimed that there should be one medical man or woman for every 3000 of population, and a bed for every 1500 of population. This should include adequate provision for maternity cases.
(d) The medical and health organisation should be so devised and worked as to emphasise the social implications of this service. With this object in view the organisation should be made a free public service, manned by whole-time workers trained in the scientific method.
(e) Adequate steps be taken to make India self-sufficient as regards the production and supply of drugs, biological products, scientific and surgical apparatus, instruments and equipment and other medical supplies... No individual or firm, Indian or foreign, should be allowed to hold patent rights for the preparation of any substances useful in human or veterinary medicine.[13] *(It is interesting to note that on the issue of patents Mr. Ambalal Sarabhai, a member of the NPC, with obvious vested interests, dissented and urged that pharmaceutical patents should be treated on the same basis as copy-right in books or industrial patents.*

The Bhore Committee endorsed this resolve of the NPC through its recommendations. In formulating its plan for a National Health Service the Bhore Committee set itself the following objectives:

1. The services should make adequate provision for the medical care of the individual in the curative and preventive fields and for the active promotion of positive health;
2. These services should be placed as close to the people as possible, in order to ensure their maximum use by the community, which they are meant to serve;
3. The health organisation should provide for the widest possible basis of cooperation between the health personnel and the people;
4. In order to promote the development of the health programme on sound lines the support of the medical and auxiliary professions, such as those of dentists, pharmacists and nurses, is

[12] NPC: National Health sub-committee (Sokhey Committee) ed. K.T. Shah, National Planning Committee, Vora & Co., Bombay, 1948.
[13] Ibid.

essential; provisions should therefore be made for enabling the representatives of these professions to influence the health policy of the country;

5. In view of the complexity of modern medical practice, from the standpoint of diagnosis and treatment, consultant, laboratory and institutional facilities of a varied character, which together constitute 'group' practice, should be made available;
6. Special provision will be required for certain sections of the population, e.g. mothers, children, the mentally deficient etc.,
7. No individual should fail to secure adequate medical care, curative and preventive, because of inability to pay for it and
8. The creation and maintenance of as healthy an environment as possible in the homes of the people as well as in all places where they congregate for work, amusement recreation, are essential.[14]

The Bhore Committee further recognised the vast rural-urban disparities in the existing health services and hence based its plan with specifically the rural population in mind. It's plan was for the district as a unit. 'Two requirements of the district health scheme are that the peripheral units of the (health) organisation should be brought as close to the people as possible and that the service rendered should be sufficiently comprehensive to satisfy modern standards of health administration'.[15]

The district health scheme, also called the three million plan, which represented an average districts population, was to be organised in a 3-tier system 'in an ascending scale of efficiency from the point of view of staffing and equipment. At the periphery will be the primary unit (one for every 10,000 to 20,000 population with 75 beds, 6 doctors, 20 nurses, 6 public health nurses and other paramedic and support staff), the smallest of these three types. A certain number of these primary units will be brought under a secondary unit (30 primary units per secondary unit with the latter having 650 beds with all major specialities and the necessary medical and non-medical staff), which will perform the dual function of providing a more efficient type of health service at its headquarters and of supervising the work of these primary units. The headquarters of the district (hospital with 2500 beds providing largely tertiary care) will be provided with an organisation which will include, within its scope, all the facilities that are necessary for modern medical practice as well as the supervisory staff who will be responsible for the health administration of the district in its various specialised types of service"[16]

This health organisation would provide integrated health services – curative, preventive and promotive – to the entire population. 'The health organisation is expected to produce a reasonably satisfactory service for rural and urban communities alike. It is based mainly on a system of hospitals of varying size and of differing technical efficiency. The institutions will play the dual role of providing medical relief and of taking an active part in the preventive campaign'.[17]

What would be the structure of this national health plan? Stated in terms of a ratio to a standard unit of population the minimum requirement recommended by the Bhore Committee was:

- 567 hospital beds per 100,000 population

[14] Bhore, Joseph, 1946 : op. cit.
[15] Ibid.
[16] Ibid.
[17] Ibid.

- 62.3 doctors per 100,000 population
- 150.8 nurses per 100,000 population [18]

What existed at that time (1942) in India was:

- 24 beds per 100,000 population
- 15.87 doctors per 100,000 population
- 2.32 nurses per 100,000 population

In contrast what existed in the UK in 1942 was:

- 714 beds per 100,000 population
- 100 doctors per 100,000 population
- 333 nurses per 100,000 population

We may conclude from the above that the health care facilities that existed in India at the time of the Bhore Committee were embarrassingly inadequate. In fact, most of these were in urban areas and largely in enclaves of the British Civil administration and Cantonments.[19] What the Bhore Committee recommended was not excessive when we look at the ratio of facilities already existing in the UK even prior to the setting up of its National Health Service.

The Bhore Committee ends its report on a clear note of urgency for implementation of the plan in its full form. 'The existing state of public health in the country is so unsatisfactory that any attempt to improve the present position must necessarily involve administrative measures of such magnitude as may well seem to be out of all proportion to what has been conceived and accomplished in the past. This seems to us inevitable, especially because health administration has so far received from governments but a fraction of the attention that it deserves in comparison with other branches of governmental activity. We believe that we have only been fulfilling the duty imposed on us by the Government of India in putting forward this health programme, which can in no way be considered as extravagant either in relation to the standards of health administration already reached in many other countries or in relation to the minimum requirements of any scheme which is intended to demonstrate an appreciable improvement in the health of the community. For reasons already set out, we also believe that the execution of the scheme should not be beyond the financial capacity of governments.

...We desire to stress the organic unity of the component parts of the programme we have put forward. Large-scale provision for the training of health personnel forms an essential part of the scheme, because the organisation of a trained army of fighters is the first requisite for the successful prosecution of the campaign against diseases. Side by side with such training of personnel, we have provided for the establishment of a health organisation which will bring remedial and preventive services within the reach of the people, particularly of that vast sections of the community which lies scattered over the rural areas and which has, in the past, been largely neglected from the point of view of health protection on modern lines. Considerations based on inadequacy of funds and insufficiency of trained workers have naturally necessitated the suggestion that the new organisation should first be established over a limited area in each district and later extended as and when funds and trained personnel become increasingly available. Even with such limitations the proposed health service is intended to fulfil, from the beginning and in an increasing measure as it expands, certain requirements, which are now generally accepted as essential characteristics of modern health administration. These are that curative and preventive work should dovetail into each other and that, in the provision of such a combined service to the people, institutional and domiciliary treatment facilities should be so integrated as to provide the maximum benefit to the community. There should also be provision in the health organisation for such consultant and laboratory services as are necessary to

[18] Bhore, Joseph, 1946 : op. cit.
[19] Jeffery, Roger : op. cit.

facilitate correct diagnosis and treatment. Our proposals incorporate these requirements of a satisfactory health service.

...We have drawn attention to these aspects of the health programme because we feel that it is highly desirable that the plan should be accepted and executed in its entirety. We would strongly deprecate any attempt, on the plea of lack of funds, to isolate specific parts of the scheme and to give effect to them without taking into consideration the interrelationships of the component parts of the programme. Our conception of the process of the development of the national health services is that it will be a cooperative effort in which the Centre, acting with imagination and sympathy, will assist and guide a coordinated advance in the provinces. We therefore look forward to a pooling of resources and personnel, as far as circumstances permit, in the joint task that lies before the governments".[20]

This above review provides not only a brief summary of the Bhore committee report but it also lends a contrast to the present level of development of health care services. If the concern of our health policy is universal access to health care with equity, then the above discussion is very relevant even today.

With the end of colonial rule in India the population of the country expected a radical transformation of the exploitative social structure that the British rule had nurtured and consolidated. But these expectations were belied, as the new rulers were mere indigenous substitutes for the colonial masters.

The new rulers mouthed a lot of radical jargon and even put it in writing in the form of the First Five Year Plan document and other more specific documents for various sub-sectors of the economy.

The first Five Year Plan describes the central task of planning thus: 'The problem is not one of merely re-channelling economic activity within the existing socio-economic framework; that framework has itself to be remoulded so as to enable it to accommodate progressively those fundamental urges which express themselves in the demands for the right to work, the right to adequate income, the right to education and to a measure of insurance against old age, sickness and other disabilities. The Directive Principles of State Policy enunciated in Articles 36 to 51 of the constitution make it clear that for the attainment of these ends, ownership and control of the material resources of the country should be distributed so as best to subserve the common good, and that the operation of the economic system should not result in the concentration of wealth and economic power in the hands of a few. It is in this larger perspective that the task of planning has to be envisaged'.[21]

However, our postcolonial history is a witness to the rapid dilution of these progressive principles, objectives and resolutions. The States' plans and policies have in no way made a significant impact on redistribution of resources for the common good. On the contrary the policies and plans have helped in strengthening of inequalities and underdevelopment continues unabated.

The postcolonial period health care sector has seen private medical practice develop as the core of the health sector in India. The private health sector initially strengthened the enclave sector, and then gradually spread into the periphery as opportunities for expropriation of surplus by providing health care increased due to the expansion of the socio-economic infrastructure. It must be noted that this pattern of development was in keeping with the general economic policy of capitalism. Thus the health policy of India

[20] Bhore, Joseph, 1946 : op.cit.
[21] Planning Commission, Government of India First Five Year Plan. New Delhi: Planning Commission, Government of India, 1951

cannot be seen as divorced from the economic and industrial policy of the country. In India until 1982-83 there was no formal health policy statement. The policy was part and parcel of the planning process (and various committees appointed from time to time), which provided most of the inputs for the formulation of health programme designs.

It was not until 1983 that India adopted a formal or official National Health Policy. Prior to that health activities of the state were formulated through the Five Year Plans and recommendations of various Committees. For the Five Year Plans the health sector constituted schemes that had targets to be fulfilled. Each plan period had a number of schemes and every subsequent plan added a few more and dropped a few.

In the 1950s and 1960s the entire focus of the health sector in India was to manage epidemics. Mass campaigns were started to eradicate various diseases. These separate countrywide campaigns with a techno-centric approach were launched against malaria, smallpox, tuberculosis, leprosy, filaria, trachoma and cholera. Cadres of workers were trained in each of the vertical programmes. The National Malaria Eradication Programme (NMEP) alone required the training of 150,000 workers spread over in 400 units to handle the prevention and curative aspects of malaria control.[22]

The policy of going in for mass campaigns was in continuation of the policy of colonialists who subscribed to the precepts of modern medicine that health could be looked after if the germs which were causing it were removed. But the basic cause of the various diseases was a social issue, i.e. inadequate nutrition, clothing, and housing, and the lack of a proper environment. These were ignored. National programs were launched to eradicate the diseases. The NMEP was started in 1953 with aid from the Technical Cooperation Mission of the U.S.A. and technical advice of the W.H.O. Malaria at that period was considered an international threat. DDT spraying operations was one of the most important activities of the programme. The tuberculosis programme involved vaccination with BCG, T.B. clinics, and domiciliary services and after care. The emphasis however was on prevention through BCG. These programmes depended on international agencies like UNICEF, WHO and the Rockefeller Foundation for supplies of necessary chemicals and vaccines. The policy with regard to communicable diseases was dictated by the imperialist powers as in the other sectors of the economy. Along with financial aid came political and ideological influence. Experts of various international agencies decided the entire policy framework, programme design, and financial commitment allotment.

During the first two Five Year Plans the basic structural framework of the public health care delivery system remained unchanged. Urban areas continued to get over three-fourth of the medical care resources whereas rural areas received 'special attention' under the Community Development Program (CDP). History stands in evidence to what this special attention meant. The CDP was failing even before the Second Five Year Plan began. The governments own evaluation reports admitted to this failure.

To evaluate the progress made in the first two plans and to draw up recommendations for the future path of development of health services the Mudaliar Committee was set up in 1959. The report of the committee recorded that the disease control programmes had some substantial achievements in controlling certain virulent epidemic diseases. Malaria was considered to be under control. Deaths due to malaria, cholera, smallpox etc. were halved or sharply reduced and the overall

[22] Banerji D., 1985. Health & Family Planning Services in India: an Epidemiological, Socio-cultural and Political Analysis and a Perspective. Lok Paksh, New Delhi.

morbidity and mortality rates had declined. The death rate had fallen to 21.6 per cent for the period 1956-61. The expectation of life at birth had risen to 42 years. However, the tuberculosis program lagged behind. The report also stated that for a million and half estimated open cases of tuberculosis there were not more than 30,000 beds available.

The Mudaliar Committee further admitted that basic health facilities had not reached at least half the nation. The primary health care (PHC) programme was not given the importance it should have been given right from the start. There were only 2800 PHCs existing by the end of 1961. Instead of the 'irreducible minimum in staff' recommended by the Bhore Committee, most of the PHCs were understaffed, large numbers of them were being run by ANMs or public health nurses in charge.[23] The fact was that the doctors were moving into private practice after training at public expense. The emphasis given to individual communicable diseases programme was given top priority in the first two plans. But primary health centres through which the gains of the former could be maintained were given only tepid support.[24]

The rural areas in the process had very little or no access to them. The condition of the secondary and district hospitals was the same as that of the PHCs. The report showed that the majority of the beds and various facilities were located in the urban areas. The Committee recommended that in the immediate future instead of expansion of PHCs consolidation should take place and then a phased upgrading and equipping of the district hospitals with mobile clinics for the treatment of the non-PHC population. But the urban health infrastructure continued to increase to meet the growing demands for medical care and this was where the state governments' own funds were getting committed. The Centre through the Planning Commission was investing in preventive and promotional programs whereas the state governments focused their attention on curative care – some sort of a division of labour had taken place which continues even to the present.

The Third Five Year Plan launched in 1961 discussed the problems affecting the provision of PHCs, and directed attention to the shortage of health personnel, delays in the construction of PHCs, buildings and staff quarters and inadequate training facilities for the different categories of staff required in the rural areas.[25] The Third Five Year Plan highlighted inadequacy of health care institutions, doctors and other personnel in rural areas as being the major shortcomings at the end of the second Five Year Plan. The doctor syndrome loomed large in the minds of planners, and increase in supply of human power in health meant more doctors and not other health personnel. While the third plan did give serious consideration to the need for more auxiliary personnel no mention was made of any specific steps to reach this goal. Only lip service was paid to the need for increasing auxiliary personnel but in the actual training and establishment of institutions for these people, inadequate funding became the constant obstacle. On the other hand, the proposed outlays for new Medical Colleges, establishment of preventive and social medicine and psychiatric departments, completion of the All India Institute of Medical Sciences and schemes for upgrading departments in Medical Colleges for post graduate training and research continued to be high.[26]

---

[23] Mudaliar Committee, 1961: Health Survey and Planning Committee, MoHFW, New Delhi
[24] Batliwala, Srilatha, 1978: The Historical Development of Health Services in India, FRCH, Bombay
[25] Planning Commission, Government of India Third Five Year Plan. New Delhi: Planning Commission, Government of India, Y 1961
[26] Batliwala, Srilatha, 1978: The Historical Development of Health Services in India

In this way we see that the allocation patterns continued to belie the stated objectives and goals of the overall policy in the plans. The urban health structure continued to grow and its sophisticated services and specialities continued to multiply. The 3rd plan gave serious consideration for suggesting a realistic solution to the problem of insufficient doctors for rural areas 'that a new short term course for the training of medical assistants should be instituted and after these assistants had worked for 5 years at a PHC they could complete their education to become full fledged doctors and continue in public service'.[27] The Medical Council and the doctors lobby opposed this and hence it was not taken up seriously.

The **4th Plan** that began in 1969 with a 3 year plan holiday continued on the same lines as the 3rd plan. It quoted extensively from the FYP II concerning the socialist pattern of society[28] but its policy decisions and plans did not reflect socialism. In fact the 4th plan is probably the most poorly written plan document. It does not even make a passing comment on the social, political and economic upheaval during the plan holiday period (1966-1969). These 3 years of turmoil indeed brought about significant policy changes on the economic front and this, the 4th plan ignored completely. It lamented on the poor progress made in the PHC programme and recognised again the need to strengthen it. It pleaded for the establishment of effective machinery for speedy construction of buildings and improvement of the performance of PHCs by providing them with staff, equipment and other facilities. For the first time PHCs were given a separate allocation. It was reiterated that the PHC's base would be strengthened along with, sub-divisional and district hospitals, which would be referral centres for the PHCs. The importance of PHCs was stressed to consolidate the maintenance phase of the communicable disease programme. This acknowledgement was due to the fact that the entire epidemiological trend was reversed in 1966 with the spurt in the incidence of malaria which rose from 100,000 cases annually between 1963-65, to 149,102 cases[29], and the Planning Commission admitted this. FP continued to get an even greater emphasis with 42 per cent of health sector (Health + FP) plan allocation going to it.[30] It especially highlighted the fact that population growth was the central problem and used phrases like 'crippling handicap', 'very serious challenge' and an anti-population growth policy as an 'essential condition of success' to focus the government's attention to accord fertility reduction 'as a program of the highest priority'. It was also during this period that water supply and sanitation was separated and allocations were made separately under the sector of Housing and Regional development.

It was in the **5th Plan** that the government ruefully acknowledged that despite advances in terms of the infant mortality rate going down and life expectancy going up, the number of medical institutions, functionaries, beds, health facilities etc, were still inadequate in the rural areas. This shows that the government acknowledged that the urban health structure had expanded at the cost of the rural sectors.[31] This awareness is clearly

[27] Planning Commission, Government of India Third Five Year Plan.op. cit.
[28] Planning Commission, Government of India Fourth Five Year Plan. New Delhi: Planning Commission, Government of India, 1969.
[29] Ibid
[30] Ibid
[31] Planning Commission, Government of India Fifth Five Year Plan. New Delhi: Planning Commission, Government of India, 1974.

reflected in the objectives of 5th Five Year Plan which were as follow:

1. Increasing the accessibility of health services to rural areas through the **Minimum Needs Programme (MNP)** and correcting the regional imbalances.
2. Referral services to be developed further by removing deficiencies in district and sub-division hospitals.
3. Intensification of the control and eradication of communicable diseases.
4. Affecting quality improvement in the education and training of health personnel.
5. Development of referral services by providing specialists attention to common diseases in rural areas.

Major innovations took place with regard to the health policy and method of delivery of health care services. The reformulation of health programmes was to consolidate past gains in various fields of health such as communicable diseases, medical education and provision of infrastructure in rural areas. This was envisaged through the MNP which would 'receive the highest priority and will be the first charge on the development outlays under the health sector.[32] It was an integrated packaged approach to the rural areas. The plan further envisaged that the delivery of health care services would be through a new category of health personnel to be specially trained as multi-purpose health assistants. However, the infrastructure target still remained one PHC per CDP Block (as in the FYP I but the average Block's population was now 125000)!

The **Kartar Singh Committee** in 1973 recommended the conversion of uni-purpose workers, including ANMs, into multi-purpose male and female workers. It recommended that each pair of such worker should serve a population of 10,000 to 12,000. Hence the multi-purpose worker (MPW) scheme was launched with the objective of retraining the existing cadre of vertical programme workers and the various vertical programmes were to be fully integrated into the primary health care package for rural areas.[33]

Another major innovation in the health strategy was launched in 1977 by creating a cadre of village based health auxiliaries called the **Community Health workers**. These were part time workers selected by the village, trained for 3 months in simple promotive and curative skills both in allopathy and indigenous systems of medicine. They were to be supervised by MPWs, and the programme was started in 777 selected PHCs where MPWs were already in place.

This scheme was adopted on the recommendations of the **Shrivastava Committee** [34] which was essentially a committee to look into medical education and manpower support. The committee proposed to rectify the dearth of trained manpower in rural areas. The committee pointed out that 'the over-emphasis on provision of health services through professional staff under state control has been counter productive. On the one hand it is devaluing and destroying the old traditions of part-time semi-professional workers, which the community used to train and throw up and proposed that with certain modifications can continue to provide the foundation for the development of a national programme of health services in our country. On the other hand the new professional services provided under state control are inadequate in quantity and unsatisfactory in quality'. This very direct statement from the committee that was set up to review medical education and its related components

[32] Planning Commission, Government of India Fifth Five Year Plan. New Delhi: Planning Commission, Government of India, 1974.
[33] Kartar Singh Committee, 1973: Committee on Multipurpose Worker under Health and Family Planning, MoHFW, New Delhi
[34] Shrivastava Committee, 1975: Report of the Group on Medical Education and Support Manpower, MoHFW, New Delhi

assumes significance because it showed that the investment on health care had not been going to the people. The main recommendation of the committee was to have part-time health personnel selected by the community from within the community. They would act as a link between the MPW at the sub-centres and the community. With regard to medical education the committee cried for a halt to opening of new medical colleges. The committee emphasised that there was no point in thinking that doctors would willingly go to rural areas because there were a number of socio-economic dimensions to this issue. Thus their option for rural areas was the CHW scheme. This attitude was clearly supportive of the historical paradigm that rural and urban areas had different health care needs – that urban populations need curative care and rural populations preventive. This also is discriminatory since inherent in this paradigm is deprivation for the rural masses. Earlier, in 1967 the **Jain Committee** report[35] on Medical Care Services had made an attempt to devolve medical care by recommending strengthening of such care at the PHC and block/taluka level as well as further strengthening district hospital facilities. The Jain Committee also suggested integration of medical and health services at the district level with both responsibilities being vested in the Civil Surgeon/Chief Medical Officer. But recommendations of this Committee, which is the only committee since Independence to look at medical care and also for the first time reported on strengthening curative services in rural areas, were not considered seriously.

The **Sixth Plan** was to a great extent influenced by the Alma Ata declaration of **Health For All by 2000 AD** and the **ICSSR - ICMR report**.[36] The plan conceded that 'there is a serious dissatisfaction with the existing model of medical and health services with its emphasis on hospitals, specialisation and super specialisation and highly trained doctors which is availed of mostly by the well to do classes. It is also realised that it is this model which is depriving the rural areas and the poor people of the benefits of good health and medical services'.[37]

The plan emphasised the development of a community based health system. The strategies advocated were :

a. provision of health services to the rural areas on a priority basis.
b. the training of a large cadre of first level health workers selected from the community and supervised by MPWs and medical officers of the PHCs.
c. No further linear expansion of curative facilities in urban areas; this would be permitted only in exceptional cases dictated by real felt need or priority.

The plan stressed that horizontal and vertical linkages had to be established among all the interrelated programmes, like water supply, environmental sanitation, hygiene, nutrition, education, family planning and MCH. The objective of achieving a net reproduction rate of 1 by 1995 was reiterated.[38]

This plan and the seventh plan too, like the earlier ones made a lot of radical statements and recommended progressive measures. But the story was the same - progressive thinking and inadequate action. Whatever new schemes were introduced the core of the existing framework and ideology remains untouched. The underprivileged get worse off and the already privileged get better off. The status quo of the political economy is maintained. However, the Sixth and the Seventh plans are different from the earlier ones in one respect. They no longer talk of targets. The keywords are efficiency and

[35] Jain Committee, 1967: Report of the Study Group on Medical Care Services, MoHFW, New Delhi
[36] ICMR-ICSSR, 1980: Health For All – An Alternative Strategy, IIE, ICSSR, Pune
[37] Draft FYP VI, Vol. III, 1978
[38] Planning Commission, Government of India Sixth Five Year Plan 1980-85. New Delhi: Planning Commission, Government of India, 1985.

quality and the means to realise them is privatisation. Privatisation is the global characteristic of the 1980s and the 1990s and it has made inroads everywhere and especially in the formerly socialist countries.

The **Sixth and Seventh Five Year Plans** state clearly: '... the success of the plan depends crucially on the efficiency, quality and texture of implementation. ... a greater emphasis in the direction of competitive ability, reduced cost and greater mobility and flexibility in the development of investible resources in the private sector (by adapting) flexible policies to revive investor interest in the capital markets'[39]

'Our emphasis must be on greater efficiency, reduction of cost and improvement of quality. This calls for absorption of new technology, greater attention to economies of scale and greater competition'.[40] The National Health Policy of 1983 was announced during the Sixth plan period. It was in no way an original document. It accepted in principle the ICMR-ICSSR Report (1981)[41] recommendations as is evidenced from the large number of paragraphs that are common to both documents. But beyond stating the policy there was no subsequent effort at trying to change the health situation for the better.

The **National Health Policy (NHP)** in light of the Directive Principles of the constitution of India recommends 'universal, comprehensive primary health care services which are relevant to the actual needs and priorities of the community at a cost which people can afford'.[42] Providing universal health care as a goal is a welcome step because this is the first time after the Bhore Committee that the government is talking of universal comprehensive health care.

The salient features of the 1983 health policy were:

a) It was critical of the curative-oriented western model of health care,
b) It emphasised a preventive, promotive and rehabilitative primary health care approach,
c) It recommended a decentralised system of health care, the key features of which were low cost, deprofessionalisation (use of volunteers and paramedics), and community participation,
d) It called for an expansion of the private curative sector which would help reduce the government's burden,
e) It recommended the establishment of a nation-wide network of epidemiological stations that would facilitate the integration of various health interventions, and
f) It set up targets for achievement that were primarily demographic in nature.

There are three questions that must now be answered.

- Firstly, have the tasks enlisted in the 1983 NHP been fulfilled as desired?
- Secondly, were these tasks and the actions that ensued adequate enough to meet the basic goal of the 1983 NHP of providing 'universal, comprehensive primary health care services, relevant to actual needs and priorities of the community'[43]? and
- Thirdly, did the 1983 NHP sufficiently reflect the ground realities in health care provision?

During the decade following the 1983 NHP, rural health care received special attention and a massive program of expansion of primary health care facilities was undertaken in the 6th and 7th Five Year Plans to achieve the target of one PHC per 30,000 population

[39] Planning Commission, Government of India Sixth Five Year Plan 1980-85. New Delhi: Planning Commission, Government of India, 1985.
[40] Planning Commission, Government of India Seventh Five Year Plan 1985-90 Vol. II: Sectoral Programmes of Development. New Delhi: Planning Commission, Government of India, 1990.
[41] ICMR-ICSSR, 1980: Health For All – An Alternative Strategy. op. cit.
[42] MoHFW, 1983 : National Health Policy, Govt. of India, Ministry of Health & Family Welfare, New Delhi
[43] Ibid.

and one subcentre per 5000 population. This target has more or less been achieved, though a few states still lag behind. However, various studies looking into rural primary health care have observed that, though the infrastructure is in place in most areas, they are grossly under utilised because of poor facilities, inadequate supplies, insufficient effective person-hours, poor managerial skills of doctors, faulty planning of the mix of health programs and lack of proper monitoring and evaluatory mechanisms. Further, the system being based on the health team concept failed to work because of the mismatch of training and the work allocated to health workers, inadequate transport facilities, non-availability of appropriate accommodation for the health team and an unbalanced distribution of work-time for various activities. In fact, many studies have observed that family planning, and more recently immunisation, get a disproportionately large share of the health workers' effective work-time.[44]

Among the other tasks listed by the 1983 health policy, decentralisation and de-professionalisation have taken place in a limited context but there has been no community participation. This is because the model of primary health care being implemented in the rural areas has not been acceptable to the people as evidenced by their health care seeking behaviour. The rural population continues to use private care and whenever they use public facilities for primary care it is the urban hospital they prefer.[45] Let alone provision of primary medical care, the rural health care system has not been able to provide for even the epidemiological base that the NHP of 1983 had recommended. Hence, the various national health programs continue in their earlier disparate forms, as was observed in the NHP.[46]

As regards the demographic and other targets set in the NHP, only crude death rate and life expectancy have been on schedule. The others, especially fertility and immunisation related targets are much below expectation (despite special initiatives and resources for these programs over the last two decades), and those related to national disease programs are also much below the expected level of achievement. In fact, we are seeing a resurgence of communicable diseases.

With regard to the private health sector the NHP clearly favours privatisation of curative care. It talks of a cost that 'people can afford', thereby implying that health care services will not be free. Further statements in the NHP about the private health sector leave no room for doubt that the NHP is pushing

---

[44] NSS-1987 : Morbidity and Utilisation of Medical Services, 42nd Round, Report No. 384, National Sample Survey Organisation, New Delhi; IIM (A), 1985: Study of Facility Utilisation and Program Management in Family Welfare in UP, MP, Bihar (3 Vols.), Public System Group, Indian Institute of Management, Ahmedabad; NCAER, 1991: Household Survey of Medical Care, National Council for Applied Economic Research, New Delhi; NIRD, 1989 : Health Care Delivery system in Rural Areas - A Study of MPW Scheme, National Institute of Rural Development, Hyderabad; Ghosh, Basu, 1991 : Time Utilisation and Productivity of Health Manpower, IIM, Bangalore; ICMR, 1989 : Utilisation of Health and FP services in Bihar, Gujarat and Kerala, Indian Council of Medical Research, New Delhi; Gupta, JP and YP Gupta, 1986: Study of Systematic Analysis and Functioning of Health Teams at District and Block Levels, NIHFW, New Delhi; Duggal, Ravi and S Amin, 1989: Cost of Health Care, Foundation for Research in Community Health, Bombay; Jesani, Amar et.al., 1992: Study of Auxiliary Midwives in Maharashtra, FRCH, Bombay; NTI, 1988 : Report of the Baseline Survey Danida Health Care Project 2 Vols., NTI, Bangalore; ICMR, 1990 : Evaluation of Quality of Family Welfare Services at Primary Health Centre Level, ICMR, New Delhi

[45] NSS-1987: Morbidity and Utilisation of Medical Services; Duggal, Ravi and S Amin, 1989: Cost of Health Care; Kannan KP et.al., 1991 : Health and Development in Rural Kerala, Kerala Shastra Sahitya Parishad, Trivandrum; NCAER, 1991: Household Survey of Medical Care; NCAER, 1992 : Rural Household Health Care Needs and Availability, NCAER, New Delhi; George, Alex et.al., 1992 : Household Health Expenditure in Madhya Pradesh, FRCH, Bombay

[46] MoHFW, 1983 : National Health Policy op.cit.

privatisation. NHP adopts the stance that curative orientation must be replaced by the preventive and promotive approach so that the entire population can benefit.[47] The NHP suggests that curative services should be left to the private sector because the state suffers from a "constraint of resources". It recommends, "with a view to reducing governmental expenditure and fully utilising untapped resources, planned programmes may be devised, related to the local requirements and potentials, to encourage the establishment of practice by private medical professionals, increased investment by non-governmental agencies in establishing curative centres and by offering organised logistical, financial and technical support to voluntary agencies active in the health field ... and in the establishment of centres equipped to provide speciality and super speciality services ... efforts should be made to encourage private investments in such fields so that the majority of such centres, within the governmental set-up, can provide adequate care and treatment to those entitled to free care, the affluent sectors being looked after by the paying clinics".

The development of health care services post-NHP provide a clear evidence that privatisation and private sector expansion in the health sector has occurred rapidly, that in the name of primary health care the state has still kept the periphery without adequate curative services (while the states' support to curative services in urban areas continues to remain strong) and that the state health sectors' priority program still continues to be population control.[48]

The expansion of the private health sector in the last two decades has been phenomenal thanks to state subsidies in the form of medical education, soft loans to set up medical practice etc.. The private health sector's mainstay is curative care and this has been growing over the years (especially during the 1980s and 1990s) at a rapid pace largely due to a lack of interest of the state sector in non-hospital medical care services, especially in rural areas.[49] Various studies show that the private health sector accounts for over 70 per cent of all primary care treatment sought, and over 40 per cent of all hospital care.[50] This is not a very healthy sign for a country where over three-fourths of the population lives at or below subsistence levels.

The above analysis clearly indicates that the 1983 NHP did not reflect the ground realities adequately. The tasks enunciated in the policy were not sufficient to meet the demands of the masses, especially those residing in rural areas. 'Universal, comprehensive, primary health care services', the 1983 NHP goal, is far from being achieved. The present paradigm of health care development has in fact raised inequities, and in the current scenario of structural adjustment the present strategy is only making things worse. The current policy of selective health care, and a selected target population has got even more focused since the 1993 World Development Report: Investing in Health. In this report the World Bank has not only argued in favour of selective primary health care but has also introduced the concept of DALYs (Disability Adjusted Life Year's) and recommends that investments should be made in directions where the resources can maximise gains in DALYs. That is, committing increasing resources in favour of health priorities where gains in terms of efficiency override the severity of the health care problems, questions of equity and social justice. So powerful has been the World Bank's influence, that the WHO too has taken

[47] MoHFW, 1983 : National Health Policy op.cit.
[48] Ibid.
[49] Jesani, Amar and S Ananthram,1993: Private Sector and Privatisation in Health Care Services, FRCH, Bombay
[50] NSS-1987: Morbidity and Utilisation of Medical Services; Duggal, Ravi and S Amin, 1989: Cost of Health Care; Kannan KP et.al., 1991: Health and Development in Rural Kerala; George, Alex et.al., 1992 : Household Health Expenditure

an about turn on its Alma Ata Declaration. WHO too, in its "Health For All in the 21st Century" agenda is talking about selective health care, by supporting selected disease control programs and pushing under the carpet commitments to equity and social justice. India's health policy has increasingly been moving in the direction of selective health care - from a commitment of comprehensive health care on the eve of Independence, and its reiteration in the 1983 health policy, to a narrowing down of concern only for family planning, immunisation and control of selected diseases. Hence, one has to view with seriousness the continuance of the current paradigm and make policy changes which would make primary health care relevant to the needs of the population a reality and accessible to all without any social, geographical and financial inequities.

The **7th Five Year Plan** accepted the above NHP advice. It recommended that 'development of specialities and super-specialities need to be pursued with proper attention to regional distribution"[51] and such 'development of specialised and training in super specialities would be encouraged in the public and the private sectors'.[52] This plan also talks of improvement and further support for urban health services, biotechnology and medical electronics and non-communicable diseases. Enhanced support for population control activities also continues. The special attention that AIDS, cancer, and coronary heart diseases are receiving and the current boom of the diagnostic industry and corporate hospitals is a clear indication of where the health sector priorities lie.

On the eve of the **Eighth Five Year Plan** the country went through a massive economic crisis. The Plan got pushed forward by two years. But despite this no new thinking went into this plan. In fact, keeping with the selective health care approach the eighth plan adopted a new slogan – instead of Health for All by 2000 AD it chose to emphasise Health for the Underprivileged.[53] Simultaneously it continued the support to privatisation, 'In accordance with the new policy of the government to encourage private initiatives, private hospitals and clinics will be supported subject to maintenance of minimum standards and suitable returns for the tax incentives' [54].

The **Ninth Five Year Plan** by contrast provides a good review of all programs and has made an effort to strategize on achievements attained and learn from them in order to move forward. There are a number of innovative ideas in the ninth plan. It is refreshing to see that reference is once again being made to the Bhore Committee report and to contextualise today's scenario in the recommendations that the Bhore Committee had made.[55] In its analysis of health infrastructure and human resources the Ninth Plan suggests the consolidation of PHCs and SCs and assures that the requirements for its proper functioning are made available and positions it as an important goal under the Basic Minimum Services program. Thus, given that it is difficult to find physicians to work in PHCs and CHCs the Plan suggests creating part-time positions which can be offered to local qualified private practitioners and/or offer the PHC and CHC premises for after office hours practice against a rent. It also suggests putting in place mechanisms to strengthen referral services[56].

---

[51] Planning Commission, Government of India Seventh Five Year Plan 1985-90 Vol. II: Sectoral Programmes of Development. New Delhi: Planning Commission, Government of India, 1990.
[52] Ibid.
[53] Planning Commission, Government of India Eighth Five Year Plan Highlights. New Delhi: Directorate of Advertising and Visual Publicity, Government of India, 1992.
[54] Ibid.
[55] Planning Commission, Government of India Approach Paper to the Ninth Five-Year Plan (1997-2002) New Delhi: Planning Commission, Government of India, 1997.
[56] Ibid.

Yet another unique suggestion is evolving state specific strategies because states have different scenarios and are at different levels of development and have different health care needs. The Ninth Plan also shows concern for urban health care, especially the absence of primary health care and complete reliance on secondary and tertiary services even for minor ailments. This needs to be changed through provision of primary health care services, especially in slums, and providing referral linkages at higher levels.

During the Eighth Plan resources were provided to set up the Education Commission for Health Sciences, and a few states have even set up the University for Health Sciences as per the recommendations of the **Bajaj Committee** report of 1987.[57] This initiative was to bring all health sciences together, provide for continuing medical education and improve medical and health education through such integration. The Ninth Plan has made provisions to speed up this process.

During the 8th Plan period a committee to review public health was set up. It was called the **Expert Committee on Public Health Systems**. This committee made a thorough appraisal of public health programs and found that we were facing a resurgence of most communicable diseases and there was need to drastically improve disease surveillance in the country. The Ninth Plan proposes to set up at district level a strong detection cum response system for rapid containment of any outbreaks that may occur.[58] In fact, the recommendations of this committee have formed the basis of the Ninth Plan health sector strategy to revitalise the public health system in the country to respond to its health care needs in these changed times. The Plan has also proposed horizontal integration of all vertical programs at district level to increase their effectiveness and to facilitate allocative efficiencies.

What is interesting as well is that the 9th Plan also reviews the 1983 National Health Policy in the context of its objectives and goals and concludes that a reappraisal and reformulation of the NHP is necessary so that a reliable and relevant policy framework is available for not only improving health care but also measuring and monitoring the health care delivery systems and health status of the population in the next two decades.[59] In this context the 9th Plan is critical of the poor quality of data management and recommends drastic changes to develop district level databases so that more relevant planning is possible. Taking a lead from the 9th Plan the Ministry of Health and Family Welfare took up the task of formulating a new health policy.

On the eve of the 10th Plan, the **Draft National Health Policy 2001** was announced and for the first time feedback invited from the public. 'Universal, comprehensive, primary health care services', the NHP 1983 goal, is not even mentioned in the NHP 2001 but the latter bravely acknowledges that the public health care system is grossly short of defined requirements, functioning is far from satisfactory, that morbidity and mortality due to easily curable diseases continues to be unacceptably high, and resource allocations generally insufficient –

> *"It would detract from the quality of the exercise if, while framing a new policy, it is not acknowledged that the existing public health infrastructure is far from satisfactory. For the out-door medical facilities in existence, funding is generally insufficient; the presence of medical and para-medical personnel is often much less than required by the prescribed norms; the availability of consumables is frequently negligible; the equipment in many public hospitals is often obsolescent and unusable; and the*

[57] Planning Commission, Government of India Eighth Five Year Plan Highlights (1992) op.cit.
[58] Planning Commission, Government of India Approach Paper to the Ninth Five-Year Plan (1997-2002) op.cit.
[59] Ibid.

> *buildings are in a dilapidated state. In the in-door treatment facilities, again, the equipment is often obsolescent; the availability of essential drugs is minimal; the capacity of the facilities is grossly inadequate, which leads to over-crowding, and consequentially to a steep deterioration in the quality of the services".*[60]

The **NHP 2002** needs to be lauded for its concern for regulating the private health sector through statutory licensing and monitoring of minimum standards by creating a regulatory mechanism. This has been an important struggle of health researchers and activists to build accountability within the private health sector and it is hoped the new policy addresses this issue rigorously. Besides this, the express concern for improving health statistics, including national health accounts, is welcome. A mechanism of assuring statutory reporting not only by the public system but also the private sector is an urgent requirement so that health information systems provide complete and meaningful data.

The main objective of NHP 2002 is to achieve an acceptable standard of good health amongst the general population of the country (para 3.1). The goals given in Box IV of the policy document are laudable but how their achievement will happen in the specified time frame has not been supported adequately in the policy document. For instance, goal number 10 'Increase utilisation of public health facilities from current level of <20 to >75%' is indeed remarkable. What it means is reversal of existing utilisation patterns, which favour the private sector. While we support this goal to the hilt we are worried that many prescriptions of the policy favour strengthening of the private health sector and hence is contrary to this goal. In sum NHP 2001 is a mere collection of unconnected statements, it is a dilution of the role of public health services envisaged in the earlier policy and is unabashedly promoting the private health sector.

The **Ninth Plan** also reviews the population policy and the family planning program. In this review too it goes back to the Bhore Committee report and says that the core of this program is maternal and child health services. Assuring antenatal care, safe delivery and immunisation are critical to reducing infant and maternal mortality and this in turn has a bearing on contraception use and fertility rates.[61] This is old logic which the family planning program has used, except that earlier their emphasis was on sterilisation. In the early 1960s the setting up of subcentres and employing ANMs was precisely for the MCH program but at the field level the family planning program hijacked this. This story continues through the seventies and eighties. MCH became Safe Motherhood, and expanded Program of Immunisation and the latter using a mission approach under Sam Pitroda became Universal Program of Immunisation. In the 7th Plan this got combined again to become Child Survival and Safe Motherhood, but the essential emphasis remained on family planning. But since the 8th Plan and into the 9th Plan, child survival and safe motherhood (CSSM) acquired a genuine seriousness and presently it has been transformed into the RCH program on the basis of the ICPD-Cairo agenda and receives multi-agency external funding support to provide need based, demand driven, high quality integrated reproductive and child health care.[62] In the midst of all this the **National Population Policy** was announced with a lot of fanfare in the middle of 2000. It is definitely an improvement from its predecessors but the underlying element remains population control and not population welfare. The major

[60] GOI, 2002: National Health Policy-2002. Department of Health, Ministry of Health and Family Welfare, Government of India, New Delhi.
[61] Planning Commission, Government of India Approach Paper to the Ninth Five-Year Plan (1997-2002) op.cit.
[62] Ibid.

concern is with counting numbers and hence its goals are all demographic. But as has been said earlier there is a distinct improvement from the past because the demographic goals are placed in a larger social context and if that spirit were maintained, then in practice we would definitely move forward.

We are now through with the 9th Five-year Plan and a review of all its innovative suggestions shows that we have once again failed at the ground level. We have been unable to translate these ideas into practice. And despite all these efforts one can see the public health system weakening further. The answer is found in the 9th Plan itself. It laments that all these years we have failed to allocate even two per cent of plan resources to the health sector.[63] The same reason has killed the initiative shown in the 9th Plan process at the very start by continuing the story of inadequate resource allocations for the health sector. The approach paper to the **10th Five-year Plan** maintains the continuum from the 9th Plan. It does talk about reorganisation and restructuring of the health infrastructure and linking it to a responsibility system on the basis of residence with a referral system for higher levels of care. The 10th Plan also says that the commitment to primary health care, emergency and life-saving services and the national programs must continue free of cost but puts in a rider of user charges for those above the poverty line. However, in the same breath it quotes the NSS 52nd Round, which reveals that, even the middle classes fall into severe indebtedness for hospitalisation and that something towards risk-pooling needs to be developed. Interestingly the Draft Tenth Plan adopts the following contradictory stance:

In view of the importance of health as a critical input for human development there will be continued commitment to provide:

- essential primary health care, emergency life saving services, services under the National Disease Control programmes and the National Family Welfare Programme totally free of cost to all individuals and
- essential health care service to people below the poverty line based on their need and not on their ability to pay for the services.

> ... Available funds will be utilised to make all the existing institutions fully functional by providing needed equipment, consumables, diagnostics and drugs. In addition to funds from the centre, state, externally aided projects, locally generated funds from user charges and donations will be used for maintenance and repair to ensure optimal functional status and improve quality of services.[64]

In the above review of plans and policies an issue of concern is the **influence of international agencies** in policymaking and program design both within and outside the plans. Right from the First Plan onwards one can see the presence of international aid agencies that with a small quantum of money are able to inject large doses of ideology. It cannot be a coincidence that almost every health program the Indian government has taken up since the first plan has been anticipated by some international donor agency. Whether it was the CDP in the 1950s, intrauterine contraceptive device (IUCD) and malaria in the sixties or RCH and AIDS in the nineties, most health programs have been shaped through external collaboration. Historically, though there is a qualitative and quantitative difference.

Up to the 1980s the influence came through advice and ideology and hence its penetration was limited. Post-eighties there is a lot of money also coming in, mostly as soft loans and in tandem with conditionalities, and if we continue without making a paradigm shift and structural changes, we will be transferring

[63] Planning Commission, Government of India Approach Paper to the Ninth Five-Year Plan (1997-2002) op.cit.
[64] 10thPlan approach paper, pages 39-40

a burden to the next generation which it may be unable to carry! Prior to the 1980s external assistance was mostly grants and very insignificant in volume. During the entire decade of the seventies about $85 million per year of external assistance in the health sector was being received, largely as grants but after the World Bank entered the picture in the eighties with India Population Projects (IPP) the scenario changed significantly with the annual average varying between $300 million and $600 million during the 1980s and 1990s, mainly as loans with the World Bank dominating with over two-thirds of such funds coming from it by the end of the eighties.[65] Thus the larger dependence on external assistance in the health sector began with the IPP of the World Bank, which were essentially soft loans and not grants as in the past from bilateral and multilateral donors.[66] The first five IPP's focused on development of the health infrastructure, especially in rural areas dove-tailing with the Minimum Needs Program and did make a significant impact in strengthening the infrastructure. The subsequent IPPs changed the strategy to support recurring expenditure and this led to disaster because the dependence on World Bank and various bilateral donors like ODA (now DFID), USAID, DANIDA, NORAD, SIDA etc. for running various health programs reduced the governments' own funding of these programs and that's where the decline of the public health system began and continues to this day. The big international donors now are World Bank, European Union, USAID, and DFID and all follow a more or less similar strategy, that is supporting selective health programs targeted at specific population groups. This approach is unsustainable and can only distort the healthcare system of the country further and move it away from the rights framework.

In conclusion we would like to indicate that the neglect of the public health sector is an issue larger than government policy formulation. The latter is the function of the overall political economy. Under capitalism only a well developed welfare state can meet the basic needs of its population. Given the comparatively weaker capitalist development of India the demand of public resources for the productive sectors of the economy (which directly benefit capital accumulation) is more urgent (from the business perspective) than the social sectors, hence the latter gets only residual attention by the state. Thus, the solution for satisfying the health needs of the people does not lie in the health policies and plans but is a question of structural changes in the political economy that can facilitate implementation of progressive health policies.

[65] Gupta, D and A Gumber, 2002: External Assistance to the Health Sector and its Contributions – Problems and Prognosis, ICRIER, New Delhi
[66] Ibid.

Public Health Services in India: A Historical Perspective

Ritu Priya

"Each pattern of approach to health care emerges as a logical outcome of a given political, social and economic system. These forces generate an unwritten policy frame which influence the health of a population".
Debabar Banerji

Throughout known history, human beings have made efforts to explain illnesses and devised methods to deal with them, individually and collectively. Indian society has been no different. So when health service development was undertaken as a focus of planned activity by the state in Independent India, it was to add substantially to the existing systems of health care. The latter had not been able to grow over the years to meet the new challenges posed by the dynamic health situation. The knowledge systems of health care had gone into a decline and were incapable of adapting to the changing social and physical environment as well as the political and cultural context. The health status and morbidity profile and any major determinants in the population have to guide the structure and functioning of any public health system. These will to some extent also reflect the impact of the latter. All these dimensions require that health service development relate to the specific social and epidemiological context, with a necessary responsiveness to change as these parameters change over time. The question that causes concern is whether the public health service system developed in post-Independence India was able to do so? What are the challenges and the way forward today?

In order to answer these questions this paper examines the evolution of health services in post-Independence India up to the present time, against public health principles and the debates on structure and content of a health care system. The argument is that the experience has been mixed, and that both the gains and the negative consequences are the logical outcome of choices made when adopting models of planned development at the time of Independence. The paper ends with some lessons drawn from past experience for evolving a pro-poor, pro-people health care system in the present context.

Some Perspectives on Public Health Services

The Roles Expected of Public Health

Four phases of the growth of health services can broadly be discerned in Independent India:

- the immediate post Independence period of the 1950s to the mid-1960s,
- the next fifteen years up to 1980,
- the period of the 1980s and
- the current phase starting from 1991 when we formally adopted new economic policies.

This paper will examine the evolution and status of the public health service system over these four periods with reference to the following social roles it is expected to play:

1. Public Health Service Provisioning – To act as 'the caring arm' of society that minimises suffering through the delivery of preventive and curative services. This would include services at the primary, secondary and tertiary levels, their management and quality of functioning.
2. Policy Formulation and Planning for the whole health sector – Its role as the organisational wing for application of knowledge about health and disease. This would include surveillance, research, analysis and policy formulation on priority problems, manpower development and deployment, optimising infrastructure and

technology inputs for all sections of health service providers. *The public, private (formal and informal) and NGO sectors as well as the indigenous systems of medicine and homeopathy (ISM&H) at primary, secondary and tertiary levels of health care comprise the 'health service system' in the country.* Health planning and policy formulation exercises must include all these within their purview. Drugs quality control, production and regulation etc. would fall within its ambit.

3. Early Detection of Social Pathology – To act as the eyes and ears of society to recognise social pathology through symptoms that manifest in the form of health problems. It must provide warnings about prevailing unhealthy social structures and environmental conditions to society. Public concern and public policy could then identify what needs to be done by other sectors of planned development and other segments of social action to deal with the root causes.

The first role is the most publicly visible task. The second is what is done in the back rooms to make the first happen and decides its fate. The third is what is viewed merely as a spin-off from the services, but is what could lead to effective action for improving the health status of populations.[1]

Issues of Quality and Functioning of Public Health Services: An Interaction of Social and Technical Factors

With the large health service infrastructure in India today, both government and non-government, the central issue appears to be the quality of its functioning. *Quality of public health services* is defined by the extent of their availability and coverage, economic affordability and social accessibility to all sections of society, efficacy, safety and epidemiological rationale, and attitudes of the personnel. This, in turn, is dependant upon the *'culture of health services'*, which consists of the organisational principles, motivations of personnel at all levels and their interactions among themselves as well as with those to whom they provide services.

The dimensions of the culture of health services reflects in the bureaucratisation/ rigidity or flexibility, technology-centred perspective of people's lives-centred perspective, disease-oriented or positive health-oriented approach. It can shape into a caring and problem-solving or hierarchical and control-exerting approach, an integrated systemic or isolated programmatic approach. The dominant societal perspectives and development ideologies as well as the organisational structure, structures of financing, decision-making and implementation within the health services also shapes this culture. The professional/ technical background and social background of the service providers further contributes to this institutional sub-culture. Once the culture is established it perpetuates itself within the health services, and also tends to diffuse into other related institutions further strengthening the hold of its dominant paradigm.

It is important to recognise that the health system has *a strong 'information gap' – that the balance of power is strongly in favour of the 'expert' i.e. the doctor,* and the service system as a whole versus its 'beneficiaries', the lay public. However this expert based system often lacks knowledge of the social and cultural context in which it functions, as well as other forms of 'science of the body'. The inherent information gap allows the dominant system to build its own legitimacy and hegemony, and cover up its limitations.

[1] The Sanitary Movement arose in Europe to handle rising communicable diseases and resulted in improving the unhygienic conditions of towns in the post-Industrial Revolution period and living and working conditions of the industrial workers. Acknowledgement of the negative impact of the World Bank – IMFs Structural Adjustment Policies first came from deteriorating health indices in Latin America and Africa leading to efforts at 'humanising' the present form of globalisation.

However, since the health services interact with the masses, they have to some extent to be responsive to popular culture and popular expectations. That is what allows for democratic pressure in an expert-biased system. People value the systems for its expertise but do not like to be exploited because of it. Therefore the elements of faith and trust are a central part of any health care system.

The specialised information of the providers is a social asset that must grow and provide maximum benefit. However, the narrower the social and cultural gap between the provider system and the lay public, the more likely is the service system to be accountable to the people. The philosophical moorings that give direction to the growth of both health-related knowledge and the health services are therefore of crucial significance. It is in this context that three models available for planned development at the time of India's Independence acquire relevance.

The Dialogue Between Development Models

The effort of planned public health service development was part of the task of 'modern development' that sought to bring all the benefits of science and technology being enjoyed by the imperial West to the masses in the colonised East. One ideological tension at that time was around the vision of what and how to constitute 'modern development'. The other was the role of the state Vs private capital as the owner of productive assets and the provider of services, including health care. We discuss both very briefly.

The Debate over Knowledge Systems & Technology

The Nehru-Gandhi debate on India's future model of development was one expression of the differing perspectives[2] [3] Nehru favoured bringing the state-of-the-art development of the West to India, with the proviso of a self-reliant base for its production. Gandhi questioned its relevance for improving the lot of the rural and the poor of India. He was against the fetishism of technological advance as a criterion for development, placing emphasis on knowledge that increased people's control over their own lives. Another ideological tension at the time of Independence was the Gandhi-Hindu identity fundamentalist confrontation as Gandhi sought to reinterpret both traditional and folklore, to devise a new social order that allowed for fulfilling the basic needs with dignity for all, reinforcing pluralism and communal harmony. The Hindu-fundamentalist forces attempted to reinforce the upper caste version of Hinduism and build a centralised organisational structure for it. The starting point for the Gandhian perspective was 'where the *daridra narayan* was' and to create conditions so that people could improve their own condition.[4] On the other hand it also advocated a 'resocialisation' of the upper castes/classes/male power wielders of Indian society, building upon their existing traditions of equality and caring to transform them into being supportive of the necessary social change. With the perspective that social disruption was worst visited through violence upon the *daridra narayan* the effort was to change social relationships 'from within'. This was not in the abstract but in concrete material forms of livelihood, life styles and consumption patterns, basic education and health care. It relied upon the creative potential and wisdom of the Indian countryside to build its own future, drawing upon external resources according to its own visions.

---

[2] Hardiman D., 2003. *Gandhi in this Time and Ours* Permanent Black, Delhi.

[3] Gandhi M.K., 1945. Letters to Nehru. Collected Works of Mahatma Gandhi. Publication Div. GOI, New Delhi.

[4] *Daridra narayan* used by Gandhi for the 'last man'; in today's development terminology it connotes those in the deepest poverty, to whom he wanted to ensure 'agency', and whose benefit he saw as the centre of all planning (Gandhi's talisman).

At Independence, recommendations of three committees were available for formulation of plans for health services development. The Bhore Committee, the Health Survey and Development Committee chaired by Sir J.C. Bhore, was set up by the British Government in India in 1942. The Bhore report in 1946, is what has provided the basis of health service development in Independent India. It outlined the blueprint of a long term and short term plan for a health service delivery structure based on the principles of (i) equal access irrespective of the ability to pay, (ii) rural areas to be the focus of services, (iii) provision of comprehensive preventive and curative services, and (iv) that co-operation of the people be sought by the service system which should be led by 'the most highly trained type of doctor'. This involved the setting up of medical colleges and 'at least a few high quality advanced institutions' for research and training of health personnel. While these would be located in major urban areas, a three-tier health care delivery structure would serve each district, from the secondary level district hospital to the primary health centres and sub-centres at village level. In addition, major public health problems requiring urgent attention were to be controlled through special vertical programmes. Specific attention was given in the report to identifying the causes of ill health and disease. Recommendations were made for dealing with many of them (e.g. setting up the Town and Country Planning Organisation for urban and rural environment planning; and increasing food production for improving nutrition. Thus it set the stage for performance of all the three roles of public health mentioned above. It is noteworthy that it expected 15 per cent of total government expenditure to be on health.

The Chopra Committee on the Indigenous Systems of Medicine 1946, set up to rectify the lack of planning for these in the Bhore Committee Report,[5] recommended a mutual learning between 'Allopathy' and the Indigenous Systems of Medicine (Ayurveda, Unani and Siddha, the ISMs). Their recommendation was that some practitioners of each be given education in the other systems evolving into one integrated knowledge system.

The Sokhey Committee 1948, the Sub-committee on Health set up by National Planning Committee of the Indian National Congress which was spearheading the nationalist movement against the British colonial power in India, differed from the top down approach of both these committees. It recommended that manpower and services be developed from below upwards; youth in every village be trained in primary health tasks and that those who perform well be trained further to become doctors, including those who were already practicing indigenous systems.

Thus three models of development can be identified:

i) the *'international standards' development model* represented by the Nehruvian perspective and the Bhore Committee,

ii) the *'revival of ancient canonical traditions' model* represented by the Hindu Mahasabha in Indian polity of that time. For health services it was the stream espousing revival of the ancient indigenous systems without generating conditions for a critical re-examination and creative advancement within them, (which the Chopra committee recommendations *do not* represent, but which provided part of the pressure for setting up of the committee itself and for its implementation),

iii) the *'people-centred and pluralistic' development model* represented by Gandhi and the Sokhey Committee.

[5] GOI,1946: Report of the Health Survey and Development Committee (Bhore Committee). Government of India, Delhi, Manager of Publications.

As in all 'models', these should be read as ideal type symbolisation, which are not exclusive watertight compartments but overlap at several points with each other.

All three Committee reports reflect the accepted supremacy of modern medicine and the objective of eventually making its services available to all. Moreover they also reflect different dimensions of the complex reality– respectively, the need for 'scientificity' as defined by the then dominant and growing 'modern medical science', the validity of ISMs as 'medical sciences' that provided benefit to large numbers, and the need to start building a health system from the base. After Independence the Bhore Committee Report was chosen to provide the vision for health services development and to this day remains the reference document. Unfortunately it did not incorporate the latter two dimensions and thereby created a comprehensive blueprint for a top down, health service system with a homogenising, non-pluralistic approach. Nor was its expectation of budgetary allocation ever fulfilled, the maximum over all the Five-year Plans being one-third of what was requested.

The Debate on Public Vs Private Sector in Health Services

Besides the perceived role of medical technology in improving health, ownership, financing and provisioning of services were also important considerations for health service development at the time of Independence. Besides the Bhore and Sokhey committee reports, the positions stated in three Plans for overall economic development also influenced health service development– the Gandhian Plan of Economic Development[6], the People's Plan prepared by the Indian Federation of Labour[7] and the Bombay Plan representing the industrial capital's perspective[8].

'Except for the Gandhian Plan, where the faith in technology was subordinate to people, all others believed in the power of technology'[9]. The People's Plan and the Bombay Plan both visualised the 'best' technologies and hospitals for disease control. However, the People's Plan was in tandem with the Gandhian Plan in emphasising the role of agriculture and health of the rural areas. The Bombay Plan focussed on urban services for industrial growth and 'education' to improve rural people's health.

Both the Bombay Plan and the People's Plan saw doctors and nurses as the only legitimate providers of health care. However the People's Plan placed sole responsibility for health on the State, the Bombay Plan held it responsible for institutional growth and personnel training but not for controlling the private sector in health. The Gandhian Plan emphasised people's role in self-care[10] .

With adoption of the top-down model of economic development and the supremacy of state-of-the art technology based health services for improving health, the Gandhian and Sokhey committee approaches were marginalised.

Current Relevance of the Development Model Debates

Over half a century later, when much water has flown down the 'development' channel, symbols and metaphors of these debates may be considered irrelevant for dealing with the practical tasks today. *The Nehruvian/Bhore*

[6] Agarwal B.N., 1944: The Gandhian Plan of Economic Development for India, Bombay, Padma Publications.
[7] Banerjee, B.H.E. et al, 1944: People's Plan for Economic Development for India, Delhi, Indian Federation of Labour.
[8] Thakurdas, Purshotamdas et al, 1944: A Brief Memorandum Outlining a Plan of Economic Development for India, Calcutta, Central Publications Branch.
[9] Qadeer I., 1997. Impact of SAP on Concepts in Public Health. Paper presented at International Seminar on 'Impact of Structural Adustment Policies on Primary Health Care in South Asia', CSMCH- JNU, New Delhi.
[10] ibid

Committee/ internationalist model of health service development with self-reliance and access to services to all irrespective of the ability to pay as a principle goal has served India fairly well. Health status has improved significantly, with life expectancy increasing almost twofold (life expectancy nearly doubled from 32 in 1951 to 59 in 1991). An enormous health service infrastructure is in place, both in the public and private sectors. Drugs, medical equipment and manpower development capacities are well entrenched. A mixed economy saw the public sector lead health service development together with significant growth of the private sector. Subsequently the private sector has overtaken the public and developed technologically to the extent that India is already on the map of 'medical tourism' in the perspective of other 'developing' countries as well as the first world countries seeking state-of-the-art services at low cost!

However, the rise and decline of the public sector with continuing lack of access to quality care by the majority raises a question about whether this was not the inevitable logic of the choices that had been made at Independence. The history of the evolution of health services in India, findings of periodic official evaluations (showing inequitable growth and poor quality of existing services, diagnosed as results of 'urban-oriented, curative, technology centred evolution, alienated from the masses') and subsequent efforts at reorienting its development is evidence of the primary tension that continues to pose a challenge to this day [11,12,13,14]. The immediate issues may change but the triangular contest continues. *The internationalist model and the revivalist have coexisted in the mainstream, the former dominating, but giving some concessions to the latter (as the growth of institutions of 'modern medicine' and Ayurveda, Siddha, Unani and Homeopathy demonstrate). The 'people centred' model and dialogue between the knowledge systems get lost somewhere in between.* Yet this periodically resurfaces whenever faced with a social crisis and efforts are made to build in correctives. But the entrenched economic and cultural/social 'right' springs back as soon as the crisis is seemingly over.

Alternatively, it is also arguable that it was the lack of adequate fund allocation that led to the limitations of the public sector. The public plus private out-of-pocket expenditure on health on an average for the total population (that hides a wide disparity) is 5.1 pr cent of GDP, higher than most 'developing' countries including China, the Latin American countries, and even Eastern Europe most of which spend 3.5-4.5 per cent of their GDP and close to West Europe and Japan that spend 5.5-8 per cent. However the *public spending* on health is among the lowest in the world, whether compared to the developed or developing countries (Table 1, row 14), only 17.5 per cent of the total. Countries with much lower per cent of GDP spent on health but a greater share of it through the public sector have achieved much better health indices, such as Sri Lanka and China (Table 1, columns 6 and 8). WHO estimates put India in the lowest category of countries for 'access to essential drugs', i.e. countries where less than 50 per cent of the population has any access. Therefore, the public allocation to health is an important factor. However, also to be recognised is the fact that these countries have much lower levels of poverty (Table 1, row 10), 6.6 per cent of Sri Lanka's population

[11] Shrivastava Committee, 1975: *Health Services and Medical Education: A Programme for Immediate Action*, Group on Medical Education and Support Manpower. Ministry of Health and Family Planning. Government of India, New Delhi.
[12] Government of India, 1982: *Statement on National Health Policy*, Ministry of Health and Family Welfare, New Delhi.
[13] ICSSR-ICMR, 1981: *Health for All*: *An Alternative Strategy – Report of a Study Group Set Up Jointly by Indian Council of Social Science Research and Indian Council of Medical Research*, Pune, Indian Institute of Education.
[14] GOI, 2002: National Health Policy-2002. Department of Health, Ministry of Health and Family Welfare, Government of India, New Delhi.

and 18.8 per cent of China's living below 1 US dollar per day as compared to India's 44.2 percent. The relative importance of these two factors as determinants of the difference in health status is difficult to assess, but that both are problems that need urgent attention for improving health status is well accepted. An equally serious consideration is the nature of spending of the public funds for health, since increased funding may go into irrational expenditure by following the 'standards' set by the private sector or the 'international standards' and only be wasted without improving health status in any significant way. The USA, which has the highest GDP and spends the maximum on health through both the public and private sectors has lower health indices as compared to Japan and Sweden. It has extremely high proportions of iatrogenic ill health in the total patients reported by the health services.

Clearly, the public services created a demand for modern health services by making a widespread network of services *available* but were unable to cater to the demand by making them *accessible* to all. This left the patients with perceptions of medical treatment and 'felt needs' that made them spend on private services [15]. What is also clear is that private spending is not on essential drugs. *Thus the high expenditure on health care is an outcome of the combination of a top-down iniquitous economic growth that has allowed conditions of high morbidity to continue combined with a top-down technocentric health service development and preponderance of an unregulated, expensive private sector over a weaker public sector.*

Alongside the dominant trend in health service development, attempts have constantly been on to create a health service system more responsive to people's needs. The Primary Health Care approach adopted internationally in 1978 as the Alma-Ata Declaration articulated it with great impact. It focussed on 'comprehensive services' which are 'accessible, affordable and acceptable to the people' along with 'intersectoral collaboration' for improving health status of the populations[16]. A questioning of the development paradigm by developing and non-aligned nations, forced adoption of a democratic instrument such as the Alma-Ata Declaration. Yet even this Declaration was very soon subverted in spirit, though not fully refuted. What came to be known as the Selective Primary Health Care approach was adopted in practice over the early 1980s, shifting to techno-fixes in areas of 'child survival', 'safe motherhood' and other vertical disease control programmes [17]. The dominant mindset had already imbibed the 'fetish of technology' and therefore the selective approaches detracting from the comprehensive approach made a quick comeback, and have only gained in strength since. The Health Sector Reforms of the 1990s which promoted commercialisation of the public sector and corporatisation of the private sector were argued on the basis of the importance of 'transfer of technology' from the industrialised countries, This meant seeking international financial aid to provide technology based services to improve the quality of services.

The present dominant thinking on improving the public health services is reflected in the Planning Commission's preparatory documents for the tenth Five Year Plan (2002-2007). 'The existing health system suffers from inequitable distribution of institutions and

[15] Banerji D., 1973. Impact of Rural health Services on the Health Behaviour of Rural Populations in India: A Preliminary Communication. *EPW*, Vol. 8, pp. 2261-68.
[16] WHO, 1978: Primary Health Care– Report of the International Conference on Primary Health Care, Alma Ata, USSR, September 6-12, Geneva, World Health Organisation.
[17] Chen L. (1988): 'Ten Years After Alma-Ata – Balancing, Different Primary Health Care Strategies' in State of the Art Lectures-XIIth International Congress for Tropical Medicine and Malaria Ed. A de Geus *Suppl. To Trop. And Geog. Med*. 40(3) pp.

manpower. Some of the factors responsible for the poor functional status of the system are: mismatch between personnel and infrastructure, lack of Continuing Medical Education (CME) programmes for orientation and skill upgradation of personnel, lack of appropriate functional referral system, absence of well established linkages between different components of the system.' This is a limited 'diagnosis' that identifies structural and functional problems but does not relate them further to their roots that lie in the inappropriate technology-centred and bureaucratic policy approaches. Thereby the recommendations for 'reforms' can only promote the existing mindset, further compounding the problems.

Standards and Quality of Medical Service Providers

The development of manpower and research capacities exemplifies the roots of the problem. In the 1940s, there existed a fairly high registered doctor: population ratio of one doctor per 6,300 persons. Almost two-third of these were 'licentiate doctors' with a 3-year training as against the 5-year M.B.B.S. graduate[18]. After a bitter debate about 'quality of medical manpower' in the 1930s, the licentiate courses had not initially been recognised by the Great Britain Medical Council. So there were several options before the country in the 1940s – i) The one and only 'best' type of doctor with 5 years of medical education acceptable to the Great Britain Medical Council, ii) the licentiate doctor with 3 years of education who was below the Medical Council's standards, and iii) the creation of a new kind of doctor with organic links to existing indigenous knowledge as well as an awareness of the elements of the modern medical system. The Bhore Committee reopened this issue and decided (despite strong dissent by some members) against continuing the licentiate courses, settling for nothing less than the 'highest standards'.

> 'Several possibilities were repudiated in the 1930s. India could have adopted a wide variety of standards of training designed to match varying local needs; or she might have preferred a single 'national' medical system with the indigenous systems integrated into it. Instead, she chose a British model. This British pattern was rapidly subverted in just those ways which the I.M.S. (the Indian Medical Service) was overtly most worried about – a politicisation of medicine in the public sector and a commercialisation of medicine in the private.'

This logic has, since the 1990s, been carried even further leading to a commercialisation of the public sector as well as a politicisation of the private sector!

The mindset of the leaders of the health system, the doctors, was created through the development of health services and medical research under colonialism. It catered to public health services through the Indian Medical Service or provided manpower for medical care through private practice,

> '...symbolised by the cantonments, civil lines, hill stations, and civil stations, came to exist wherein the growth of the health system, the curative medical system and the research system took place organically, co-terminus with the needs of the metropolis.' Further, the colonial policy 'encouraged the expansion of the private medical profession (both European and Indian), for a few medical colleges were a cheaper (but not necessarily an effective) alternative to expanding government resources on sanitary reforms for the general population'.

[18] GOI,1946: Report of the Health Survey and Development Committee (Bhore Committee). op.cit.

It was the growing pressure of the national movement for Independence from colonial rule that forced the imperial government to concern itself with public health services for the masses and so it set up the Bhore Committee in 1943[19], to give itself 'a human face'.

Roughly three-fourth of the doctors were in the private sector even in the 1940s [20]. The government doctors also engaged in private practice, which was officially seen as a source of additional remuneration and experience for them. The Bhore Committee recognised that:

> '...the practice has so far been to permit private practice, but the desirability of doing so in the future requires serious consideration... that prohibition of private practice was essential in order to ensure that the poor man in the rural areas received equal attention with his richer neighbour'.

Yet it did not recommend this forcefully. On the contrary it recommended that:

> 'In hospitals attached to teaching medical institutions it is considered desirable that there should be a proportion of medical men who combine hospital teaching work with private practice so as to enable them to gain the wider experience that contact with the general public ensures.'

The dichotomised thinking on defining 'quality' for public health and for medical care is evident.

Thus the public-private links have existed throughout the evolution of the health services, it is the greater value placed on one or the other which has changed. In the first three decades after Independence, the emphasis had shifted to the public sector and since the mid-1980s, the leadership role is again being handed over to the private sector. The nature of the private sector is also changing, with greater corporatisation and the highest 'quality' services are perceived to be provided by the corporate private sector. However the failure of the 'market' in health services is also well acknowledged. Diverse roles of the state, civil society and the community are envisaged to overcome this 'market failure' as well as to overcome the alienation of the health service system from the lay people.

But, as the NHP 2002[21] and the Tenth Plan documents show, the perspective for setting of inappropriate 'standards' and 'quality' are not viewed as part of the root of the problems of the health services. Both contain a substantial diagnostic analysis of the shortcomings of the health sector but focus only on limitations of 'the financial resources and managerial capacity'[22]. The revival of medical licentiates, greater involvement of paramedical personnel and practitioners of Institutions of Indigenous Systems of Medicine & Homeopathy (ISM&H) in delivery of medical services is suggested as a compromise on standards to improve coverage and ensure 'equity' in access to health care. There is not even one statement about the alienation of the services and providers from the lay people, something that the NHP 1983 had clearly delineated and that a vast number of studies have strongly demonstrated[23]. The documents read as if the limited role of medicine, the even smaller role of high-tech medicine, the increasing costs of irrational medical management and

[19] GOI, 1946: Report of the Health Survey and Development Committee (Bhore Committee). op.cit.
[20] GOI, 1962: Report of the Health Survey and Planning Committee (Mudaliar Committee). Ministry of Health, Government of India, New Delhi.
[21] GOI, 2002: National Health Policy-2002. op.cit.
[22] Ibid
[23] FRCH (1994) Health Research Studies in India: A Review and Annotated Bibliography. Foundation for Research in Community Health, Bombay.

iatrogenesis (disease created by the doctor) are unheard of, at a time when these are well acknowledged components of the dilemmas confronting public health policymakers world-wide. The NHP 2002[24] contains pious hopes that

> 'the creation of a beneficiary interest in the public health system will ensure a more effective supervision of the public health personnel through community monitoring than has been achieved through the regular administrative line of control' and that 'any policy in the social sector is critically dependent on the service providers treating their responsibility not as a commercial activity, but as a service, albeit a paid one'.

Thus the administrative structures have been absolved of the responsibility of ensuring adequate quality of functioning. No analysis has been attempted of the existing lack of accountability of the system and the providers to the community. No link is seen at all between the quality of functioning of the services with the structure of the system or the knowledge-gap, perspective-gap, and the social hierarchy that exists between the service providers and the lay people. Leaving it to 'supply' and 'demand' mechanisms appears to be the logic, with the unquestioned assumption that state-of-the-art medical services are the model the country must follow.

It was the dialectic between the logic set by the choices about 'standards and quality' during the colonial rule and the imperatives of public health plus public pressure that shaped the health service system and continues to do so. The outcome of this dialectic can be seen in the nature of growth of the health services as discussed in the following section. The current policy prescriptions are undermining these achievements. They also attempt to ignore or counter the questioning of the dominant model of development adopted at the time of Independence and instead pursue it even more aggressively. How will standards and quality be determined in the coming years; by the needs of medical tourism and the private corporate sector or the diversity of needs of people in India's metropolises, small towns, 'accessible' villages and the remotest villages? That is the crux of the present struggle.

We cannot continue to repeat the solutions of the 1950s and 1960s. With about one doctor registered with the Medical Council of India (MCI) per 1800 persons and 17,000 more being produced annually, do we need to revive the licentiate? Will it reduce the alienation of the system from the layperson, or only create further hierarchies of dissatisfied personnel? The licentiates, who constituted almost two-thirds of the doctors and thereby contributed to the high doctor: population ratio of one doctor per 6,300 persons existing in India in the 1940s, were irrationally done away with as an outcome of the debate on 'standards' of medical education. However, the licentiates were themselves not an answer to the problem of lack of organic links of the doctors with the majority of India's citizens. They were as concentrated in the cities as the 'fully qualified' doctors, and the alienation of both from the majority is evidenced in the fact that 'when 11 poorly paid jobs were advertised in Aden, 995 licentiates and 428 graduates applied.'[25] Would it be more appropriate to devise ways of strengthening the existing providers of health care to the poor– the public sector paramedics and the 'informal' providers? What criteria would be appropriate to assess the optimal requirement of standard of services and personnel under diverse conditions? These are the questions we urgently need to address.

[24] GOI, 2002: National Health Policy-2002. op.cit.
[25] *Indian Medical Gazette*, 1937 as quoted in Jeffery, 1979.

The current crisis created by globalisation on the one hand and the space provided by the simultaneous rhetoric of democratic 'people's participation' on the other provides another opportunity for advancing the people-centred development of health services. Can we confront the tension between different models of development, and generate a creative dialogue to mainstream the people-centred perspective and evolve/reform public health systems accordingly? Or will we let the twin faces of the 'economic and cultural right' get together against people's interests? The approach to population control represents the same struggle of perspectives. Examining the process of development of public health services in India may help us in identifying the specific direction a people-centred approach should take at this juncture so that the 'Right to Health Care', *once achieved as a legal/constitutional instrument can be given appropriate content.*.

It is with reference to this complex of issues that we can trace the growth of health services over the four phases from 1950 to the present.

The Growth of Public Health Services

1950 – 65: A Period of Growth at All Levels

Public Health in its modern form entered India as an independent sphere of activity during the colonial period, initially after 1857 to deal with problems faced by the British army and then grew rapidly around 1900 in response to large-scale epidemics. Research institutions were set up in the first three decades of the 20th century such as the All India Institute of Public Health & Hygiene and the Malaria Institute. Municipalities provided some health related services to a limited population in the urban areas, with dispensaries and hospitals growing sporadically. Later, in the first half of the 20th century, some experiments and small-scale efforts were started to provide services to the rural population as well.

In the immediate post-Independence period of the 1950s and 1960s, advanced research institutions, medical colleges with tertiary hospitals and Primary Health Centres were set up fairly rapidly while the sub-centres at village level lagged behind (Table 2). Medical graduate education grew while nursing and other health personnel lagged behind. Abolition of the licentiate course, recommended by the Bhore Committee, was finally accomplished in 1956.

The vertical programmes (for small pox and malaria) grew, while general health services lagged behind. This perpetuated the creation of an urban-oriented, curative, and biomedical expertise-centred professional mindset of the health personnel. The stage was set for the technical perspective and hierarchical, doctor-centred culture of the health services that was to follow. As a concession to the Chopra committee, a significant number of institutions of Institutions of Indigenous Systems of Medicine & Homeopathy (ISM & H) were set up but with nominal financial allocations as compared to the allopathic institutions (Tables 3 & 4). The village level workers were remembered only after two decades when the Village Health Worker scheme was started in 1977.

During this period there were achievements made in terms of a network of health institutions being established, significant control over malaria that was the biggest killer at the time (from an estimated 75 million cases and 1 million deaths in the 1940s to a mere 50,000 cases and no deaths in 1961) and elimination of smallpox in large parts of the country. Economic conditions, food production and standards of living also improved. As a result mortality rates continued to decline (Table 5).

1966 – 1980: A Period of Growth of Village Level Services

The end of the 1960s witnessed a crisis in terms of wide spread drought that raised questions about the development model adopted so far, coinciding with an international questioning of the continuing hegemony of the earlier colonising countries.

The response of the powerful sections was to raise the bogey of 'population explosion' that was eating into the gains of development. The global oil crisis in the 1970s led to cutting back on public expenditures on social sectors. The churning led to some shifting of focus to rural areas and 'people's knowledge' so that the Alma-Ata resolution on Primary Health Care in 1978[26] came to be internationally accepted as the approach for health service development. The National Health Policy of 1983 evaluated the development of services up to then as 'urban oriented and curative'. The example of China's barefoot doctors and civil society initiatives such as the Jamkhed project provided alternative visions.

The pace of infrastructure development picked up markedly at the sub-centre level (Table 2). Within the health sector, the limited achievements of the Family Planning Programme (FPP) and resurgence of cases of malaria all across the country coupled with increasing deaths forced some rethinking. The isolation of these vertical programmes from the general health services was acknowledged as one of the causes of their limited success and this led to efforts for their integration with the general health services. The needs of these programmes, and their funds, gave the impetus for increasing the village level infrastructure; so even while the latter expanded its vision remained 'vertical' and 'selective'.

The newly created 'multi-purpose workers' (MPWs), the personnel working in the community, were forced to focus on tasks of the FPP and malaria control as the whole system still gave these problems priority. Initiatives such as the Reorientation of Medical Education (ROME) scheme was an attempt at improving the quality of services at peripheral levels by exposing the medical students to rural conditions and experience in working under those constraints. The Community Health Volunteer Scheme (CHVs) for training villagers to provide basic preventive and first aid services at the doorstep was another such initiative. The CHVs were to act as a two-way channel for communication between the service system and the community, a form of 'community participation'. However, with no effective change in the culture of the health service system, or questioning of the content of its services, none of the systemic visions changed. The scheme only created menials for the health service personnel, while many of them also became privately practicing 'doctor sahibs'.

The spread of service institutions, even though limited, had generated a demand for services in the general population. A large number of medical professionals 'of the highest order', i.e. the medical graduates, and a cadre of paramedics had been created. However, with inadequate infrastructure, a growing social alienation between the service system and the general population, as well as the social hierarchy in the caste/class background of the service providers and the served, the quality of services provided got little attention. As demand grew and the institutions at PHC and secondary referral level did not expand (Table 2), services grew outside the public sector.

The 1980s: A Boom in Health Care Institutions

Over the 1980s health care institutions proliferated at all levels but more so at the primary level in both public and private sectors. Visions got further narrowed with the international discourse and programmes retreating from the Primary Health Care Approach to 'Selective' Primary Health Care in 1980[27,28]. Specific disease control programmes and population control got

[26] WHO, 1978: Primary Health Care– Report of the International Conference on Primary Health Care, Alma Ata, USSR, September 6-12, Geneva, World Health Organisation.
[27] Banerji D., 1985. Health & Family Planning Services in India: an Epidemiological, Socio-cultural and Political Analysis and a Perspective. Lok Paksh, New Delhi.
[28] Chen L. (1988): 'Ten Years After Alma-Ata. op.cit.

international professional support and funds. Public health got bogged down in managing the family planning and health programmes, reneging from the third role it was expected to play, that of identifying society's pathology and thereby providing recommendations for other sectors for action to improve the health of the population. 'Public health' became 'preventive medicine'.

The departments of Preventive & Social Medicine in medical colleges reflected this in the education they imparted to the medical undergraduates, the 'social' dimensions being taught, if at all, very superficially. Public health research, which had been imbued to some extent with a social orientation focusing on people's life conditions in the 1950s and 1960s, as in the case of tuberculosis and occupational health[29] had by now stalled. There was little in the environment to promote creative engagement with the survival problems of the people. For the 'highest order of doctors' professional excitement and rewards lay elsewhere. Research institutions primarily followed the 'advanced' countries, mimicking their research to become poor grade copies. Having always been out of reach of 'the people', these mystical centres of science and technological advancement remained alien to the majority, beyond all checks and controls of their own society. Committed individuals or groups of individuals did exist as exceptions to prove the rule, who attempted to relate to the poor and the rural sections and they kept the institutions going with some meaningful activity[30]. But they had to constantly struggle to swim against the stream. However, for even the majority of 'committed' doctors, ethical state-of-the-art practice with a humane touch was the ideal, socialised as they were by the Nehruvian vision of development.

During this period, the larger economy and polity moved from the national movement's idealism and Nehru's notion of socialistic self-reliance to a more blatant internationalist elitism to procure for the better-off sections of society state-of-the-art consumer goods and services. The seeds for this had been sown earlier by the Nehruvian model that had posed these as the ideal standards for quality of life. The large number of trained medical and paramedical professionals and practitioners of ISM & H not absorbed by the public sector, got into private practice to cater to the demand at all levels of care and for all sections. This comprised the non-formal practitioners at village and slum level, the formally trained practitioners for the urban better off running clinics, polyclinics, nursing homes and hospitals with a wide range of quality and pricing of services. The commercial interest in health services increased with competition, marketing strategies of the pharmaceutical industry, expansion of diagnostic services and specialists who garnered patients through commissions to the public sector care providers and the private general practitioners. The public sector personnel, frustrated by the distortions and limitations within the public sector and lured by the commercial sector, increasingly built links with the private sector, further depleting quality of the public sector. Technocentric and commercial attitudes came together to create an explosion of irrational health care.

More over the management of patients increasingly incorporated unnecessary procedures and over-medication that influenced lay people's expectations. Administering injections when oral medication is available and effective is an obvious

[29] Kurian C.M., 2002. The State's Perception of Worker's Health in India – The Case of Occupational Health Research. Unpub. M. Phil Dissertation.

[30] Singh,V., 2002: A Public Sector Doctor's Musings– What Many People Do Not Know About the Public Sector, Proceedings of the workshop on Societal Concerns and Strategies for AIDS Control in India, January, 2002, Jawaharlal Nehru University, New Delhi.
Sarkar A., 2002: Reflections on the Primary Care Services of a Newly Formed State, Proceedings of the workshop on Societal Concerns and Strategies for AIDS Control in India, January, 2002, Jawaharlal Nehru University, New Delhi.

example[31] People of all sections resorted to different providers at different times, based on the problem at hand and their assessment of the various medical knowledge systems and a choice of private and public sector providers within 'modern medicine'. The public sector doctors were considered most knowledgeable but negligent and rude, and the services in general 'patient unfriendly' with inconvenient timings and problems of physical access. The private sector was perceived to have less knowledge and more commercial interests, but was more patient-friendly. People also believed the medicines being given through private practice were 'better' relative to the routine and limited options perceived at the public institution [32,33]. So there was a constant movement between the public and private institutions as well as pluralistic use of different folk / traditional / modern systems for different diseases when an illness persisted or became serious. Professional bodies with civil society collaboration such the ICMR-ICSSR Study Group on Health for All advocated for expansion of public health services with specialists of curative medicine and epidemiology at a new tier of institutions. The result was the Community Health Centre and an increasing the number of PHCs to serve a population of 30,000 rather than the 1,00,000 they were initially meant to cover (but were covering almost double due to population increase with no institutional expansion). The FPP affected by excesses of the national emergency period 1977-80 needed a new face and got termed Family Welfare. 'India Population Projects' and 'Area Projects' brought unprecedented international funds for infrastructure strengthening. The number of primary level institutions increased substantially. However the personnel essentially performed FPP tasks, health care taking a back seat. CHCs were set up but with inadequate sanction of posts and specialist inputs. More generalist medical officer personnel had been sanctioned than the required norm and were over-filled, but backward areas had serious shortfalls (Table 6).

With the cumulative economic growth and a special emphasis on poverty alleviation programmes over the 1980s, proportion of population that had income below the poverty line declined markedly. Infant Mortality Rates (IMRs) too, declined sharply. However, changing ecological conditions and non-sustainability of technocentric disease control programme implementation, along with large-scale movement of people due to the skewed nature of economic development and livelihood changes, led to the return of communicable disease epidemics (e.g. kala-azar in Bihar and West Bengal since the late 1970s, falciparum malaria and cholera in Delhi since the late 1980s). Non-communicable diseases began to rise too, creating a double burden of disease. Demand for services increased, 6 per cent of GDP being spent on health services, but there was no trustworthy health service system to cater to the demand, despite an enormous health service infrastructure.

Thus by the end of the 1980s the public health system was in a crisis, with increasing demand for health care, increasing but inadequate infrastructure, poorly functioning primary level institutions and a competitive, expanding private sector. Simultaneously the country experienced an economic crisis of poor 'balance of payments' and no foreign currency reserves. On the latter front we gave in to the World Bank - IMF led Structural Adjustment Programme (SAP). For the former we adopted Health Sector Reforms as well as even more selective and technology-centred changes in the vertical programmes. 'People's participation' rose to the occasion once again

[31] Reeler A.V., 2000. Anthropological perspectives on injections: a review. *Bulletiin of World Health Organisation*, 78(1), 135-143.
[32] Banerji D., 1982. Poverty, Class and Health Culture in India, Vol. I.Prachi Prakashan, New Delhi.
[33] FRCH 1994. Health Research Studies in India: A Review and Annotated Bibliography. Foundation for Research in Community Health, Bombay.

as a crisis management exercise. It also suited the SAP agenda of withdrawal of the state from the social welfare sectors by shifting responsibility on to 'the people'. The paradox is that it also created an opportunity for creative engagement, going back to the initial and continuing tension, between the formal system and the majority comprising the poor and the rural sections.

Since the 1990s: Growth at Secondary and Tertiary Levels with Commercialisation and Corporatisation

Despite the crisis, it has to be acknowledged that, by 1990-91 development had progressed in India on several fronts but at its own slow and steady pace (Table 5). It was slower than many other 'developing' or ex-colonised countries, but still high relative to the per capita income levels (Table 1). We also had the health infrastructure, manpower, technology and production capacity for each of these. The crisis was therefore confronted by a multitude of efforts at strengthening the health services. Measures for 'Health Sector Reforms' were put forth by the international agencies, with the World Bank overtaking WHO and UNICEF as the agencies leading in international health analysis and policy formulation. However, the central and state governments have adopted and/or are still in the process of working out, diverse measures. It is therefore important to examine the policy proposals, the actual measures adopted, and the processes of decision-making that are still on and involve a struggle between acquiescence and resistance to anti-poor, anti-people measures as well as using the opportunity for change in favour of pro-poor, pro-people measures. One clear lesson from the experience of these years is that *development of public health services in a particular manner can provide structures for an escalation of the ongoing processes of commodification of health and commercialisation of the health services at a mass level.*

Improving quality of health services was universally viewed as an imperative. However there is wide divergence of views on which components of the service system to prioritise and what constitutes 'quality'. Strengthening the services from a Primary Health Care perspective is one approach, increasing availability of state-of-the-art *medical* technology through institutions meeting 'international standards' is the other end of the spectrum of perspectives. While stating the objective of strengthening Primary Health Care, the internationally propagated Health Sector Reforms (HSR) are building legitimacy for the latter. The latter attracts the middle class, suits professional aspirations of a section of medicos and the medical corporate sector. It is also conducive from the perspective of the internationally powerful lobbies of the pharmaceutical and medical equipment industry as well as insurance capital. The HSR initially included cutbacks on public health expenditure, instituting user fees for public services, promoting 'public - private partnership' in various forms, providing state support to private sector service development, and decentralisation of health services[34]. Strengthening Primary Health Care in the public sector was reduced to *primary level services* while secondary and tertiary level services, which are the greatest profit-makers, were to be promoted in the private sector.

In India, the checks imposed in earlier decades on the fetish for state-of-the-art technology by the other pro-poor, pro-people perspectives were weakened by dominance of the neo-liberal, market-friendly environment. The focus for improving functioning now became the responsibility of secondary and tertiary hospitals, besides the private sector being encouraged through state subsidies.

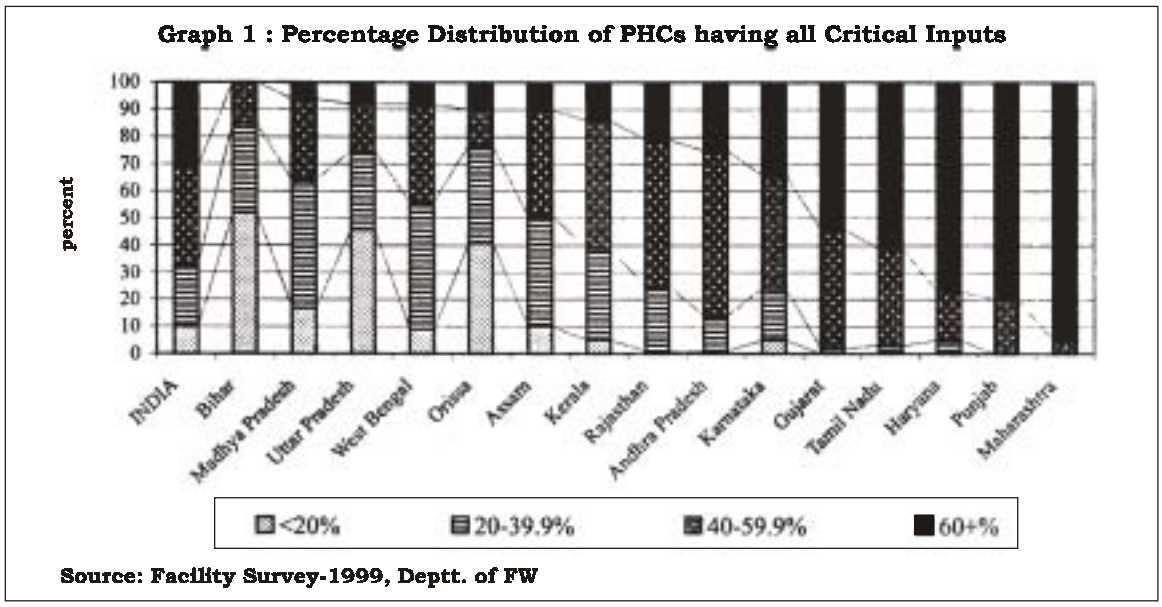
While the private sector has certainly experienced a boom since the '80s, there was a cut in expenditure for the public sector

[34] World Bank 1993: World Development Report 1993: Investing in Health, OUP, New York.

general health services in the early 1990s (see data on budgetary allocations in annexure). Shortages of drugs and reagents increased, except for the Reproductive and Child Health Programme (that incorporated Family Planning). The decrease in recruitment of MPW (male) and increase in Auxiliary Nurse Midwife (ANMs) reflects this focus and the imperative of budget cuts. Activities for diseases thought to be controlled by then– plague, kala-azar cholera – declined or were disbanded altogether due to budgetary cuts (e.g. their surveillance systems and chlorinating of wells were disbanded in many parts of the country).

On the other hand the national control programmes for other diseases, which depend on mass use of pharmaceutical products, expanded with the input of new drug regimens and delivery systems. Supported by the false promise of 'eradication' (as for leprosy and the Pulse Polio campaign) or the exaggerated fears of drug resistance (as in the case of tuberculosis) and devastation (as in case of HIV and AIDS), millions of dollars of World Bank loans have been incurred. The programmes were now dependant on technological approaches that were even more expensive and difficult to sustain[35]. Consequently, certain primary level services were strengthened in terms of the isolated disease control programmes but the general health services deteriorated further, exemplified in the poor infrastructure and essential inputs at the PHCs. The decline of routine immunisation coverage as shown in Government of India 2002 figures is one reflection of this deterioration.

Recognising the failure of the market in health care through the experience of decreasing utilisation of health services and failure of several mass programmes to meet their objectives (such as Rollback Malaria, RCH, the FPP), emphasis is now returning at the international level to strengthening public health services and is declining on the imposition of user fees. [36] The budgetary



Source : Planning Commission, GOI, September 2002. Report of the Steering Committee on Health for the Tenth Five Year Plan (2002-2007).

[35] Qadeer I., 2000: Health Care Systems in Transition III. The Indian Experience Part I. *Journal of Public Health Medicine*, 22(1), 25-32.

[36] Task Force on Health Systems Research, 2004: 'Informed Choices for Attaining the Millenium Development Goals: Towards an International Cooperative Agenda for Health Systems Research', *Lancet*, 364, 997-1003.
Palmer N. et al, 2004: 'Health Financing to Promote access in Low Income settings– How Much Do We Know?' *Lancet*, 364, 1365-70.

allocations at national level and by most states have risen in absolute terms since the mid-1990s[37, 38] However the allocations still remain inadequate relative to the rise in salaries and cost of other inputs such as drugs and equipment. Increasing expenditure is also going into new management structures with decreasing public accountability. Simultaneously 'social marketing' or propaganda for the specific disease control programmes is using the perceived public good of preventive efforts to gain legitimacy for medical technology such as vaccines, distracting from the role of secure livelihoods, labour conditions, nutrition and healthy environments for prevention of disease and promotion of health.

The overall impact has been to increase the 'felt need' for hi-tech health services but a decline in the ability of all to access treatment. NSS data shows an increase in 'not taking treatment due to financial reasons' increasing from 15 per cent in rural areas in 1986-87 to 25 per cent in 1995-96, and from 10 per cent to 20 per cent in urban areas over the same period.[39]

Health Sector Reforms

Specific measures adopted as 'Reforms' in the health services varied across states. As development trajectories differed, a north and east versus south and west gap became prominent across the 25 states and 7 union territories, the latter regions faring much better in industrial and economic development, health services and health indices.[40] Health being a state subject and different parties, particularly with regional parties coming into power, saw many state governments attempt to deal with the crisis on their own (i.e. without central support) by developing projects for international funding or through administrative changes. The wide range of 'reform measures' implemented include the following:

1. Strengthening Management Structures for greater efficiency, which involved setting up of autonomous societies for public health programmes and services, changing procurement procedures and personnel management processes. Tamil Nadu led in evolving centralised drug and equipment procurement arrangements as well as in obtaining international funds directly by bypassing the central government.

The State and district level societies with autonomous funding for specific tasks (e.g. the State AIDS Control Societies and the District Tuberculosis Control Societies) tend to verticalise and isolate the specific programmes even further as well as to implement services through the private and NGO sectors rather than strengthen the public sector.

2. Contracting Staff – Attempts have been made to fill vacancies of doctors, ANMs and laboratory staff by hiring contractual personnel (as in Andhra Pradesh [A.P.], Uttaranchal).

3. Strengthening Infrastructure

- At Primary level, buildings were built and equipment bought for PHCs, upgraded PHCs and CHCs under the RCH programme. Directly observed treatment, short course (DOTS) centres for the Revised Tuberculosis Control Programme and urban health posts were added to the repertoire of primary level

[37] Pratibha, J. 2004: 'Status of Health Care in Indian States: An Overview'. Paper presented at the 30th MFC Annual Meet, Feb. 2004, Bhopal.
[38] GOI, 2002: National Health Policy-2002. op. cit.
[39] Iyer, A. and G. Sen, 2000. "Health Sector Changes and Health Equity in the 1990s". In Shobha Raghuram [ed.] *Health and Equity– Effecting Change.* HIVOS, Bangalore
[40] Baru R.V., 1999. The Structure and Utilisation of Health Services: an Inter-State Analysis. Rao M. (Ed.) *Disinvesting in Health– The World Bank's Prescriptions for Health,* Sage, New Delhi.

institutions.

- At Secondary level, district hospitals in some states were put under the management of autonomous 'corporations' with the help of international loans as part of 'Health Systems Development Projects'. Upgrading buildings and equipment at the secondary level, charging user fees were part of the package deal. A.P. and Punjab led in terms of such secondary level institutional corporatisation with grand new buildings which are often not patient friendly; increase in equipment and procedures but with user charges; often with continuing poor conditions at the primary care level. New secondary level hospitals were set up in some states (e.g. in Delhi).
- At Tertiary level, several states set up tertiary institutions on the pattern of AIIMS, with implementation of user fees. Subsidies were also given to the private sector by way of free/highly subsidised land and waiving of import duty on medical equipment with the objective of obtaining availability of state-of-the art medical technology. The public sector employees with access to free health services –e.g. through the Central Government Health Scheme (CGHS) and the Employees State Insurance Scheme (ESIS) have been allowed greater referral to the private sector for tertiary care. Thus the public exchequer is paying an increasing proportion to the private sector for provision of tertiary services instead of improving its own provider role and deciding upon standards of rational patient management.

As a consequence of these 'reforms' new, sparkling white buildings can be seen at various levels of the health services, but they often lack the bustle and crowds one associates with medical institutions since manpower continues to be short of the stipulated minimum, requirements of recurring expenses and drug supplies etc. remain unmet. Imposition of user fees without any improvement in services tends to push patients from the public to private institutions.

4. Public-Private Partnership is also being formally institutionalised in several ways. Outsourcing specific segments such as laundry, catering and security is being widely practiced. Referral linkages with private practitioners and laboratories have been developed for specific tasks (such as RCH referral, laboratory support for Revised National Tuberculosis Control Program (RNTCP) through franchising mechanisms. A proposal that is under discussion is to allow use of health institutions' premises and infrastructure to private practitioners. The stated purpose is to increase 'efficiency'.

5. Public Institution Sale to the Private Sector by disinvestment of secondary and tertiary hospitals that have been declared 'under-utilised', mismanaged, or requiring funds for upgrading is frequently being discussed but is not known to have been implemented anywhere as yet.

6. Public-NGO Links have been built through experiments with NGOs taking over organising of services at primary level or working in close collaboration (e.g. SEARCH in Gadchiroli) and innovating on content of services.

Another important link has been the sensitising of health personnel to social issues by the NGOs, e.g. Gender sensitisation, AIDS-related issues, NGOs facilitating community-provider dialogue, ethics in health research (e.g. MASUM in Pune, Rupantar in Chhatisgarh, CEHAT in Mumbai). Karnataka's Task Force on Health and Family Welfare had strong civil society collaboration and has contributed to strengthening Primary Health Care in the state.

7. Public-Community Links are being developed through involving Panchayati Raj Institutions in management of primary level institutions and having administrative control

over non-medical staff. (Madhya Pradesh [M.P.], Kerala), community involvement and village level cadre (as in M.P, Chhattisgarh, Rajasthan, Uttaranchal), AIDS care as a continuum from community to institution (several experiments are under way). Madhya Pradesh, Rajasthan and H.P. pioneered the process of initiating structures for people's involvement in reforming medical institutions to upgrade infrastructure and facilities. This has been mediated by local committees for fund collection and utilisation through voluntary contributions and citizen's committees to assist in management of the institution. Kerala heralded the participatory planning process from village level upwards through its people's planning exercise in health and other fronts. The 73rd and 74th amendments have set the stage for involving Panchayati Raj institutions across the country, but without the groundwork of a people's mobilisation (as in Kerala by the KSSP) the impact on health services still remains to be seen.

8. Campaign Mode e.g. of the Pulse Polio Initiative, Family Health Awareness Campaign where personnel and public attention are diverted from routine activities, but wide coverage and public participation is elicited for specific disease control.

Current Scenario of Health Services

Since so many diverse steps have been taken, and the same measures may have varied impact in the diverse contexts across states, it is difficult to assess the outcome of these 'reforms' as a single phenomenon. However the following generalisations can be made about the existing scenario of public health services, reflecting positive and negative elements of the current phase: -

1. There is a ferment within the health services after a period of routine activity at low levels of functioning.
2. Issues of defining quality and standards as well as regulatory mechanisms are gaining centre stage. The major thrust on the plea of improving quality has been on experimenting with changes in financing and management structures to suit administrative control by international funders, insurance companies and local private enterprise. While quality may have improved on some counts in a section of the public sector medical institutions, several structural issues have to be examined for a sound assessment:

- When 'reforms' are being done piecemeal for different parts of the system, what quality criteria are being compromised? How is a cohesive system expected to function?
- What are the mechanisms for monitoring and accountability of work that is contracted out? Experience worldwide has shown that they increase cost and bring down quality[41], refuting the argument of 'efficiency'.
- Increasing management structures have added to capital and recurring costs but has it really improved service outcomes?
- What are the mechanisms envisaged for improving performance of health personnel? The increasing management structures are more for financial flows for internationally funded programmes (e.g. state and district level societies for AIDS and tuberculosis programmes).
- If quality control structures from within the service system are set up (e.g. quality control circles in Gujarat) what norms are there to ensure that the management systems will behave differently from those existing at present and be able to implement quality standards?
- The experience with contract staff in several states such as A.P. and Uttaranchal has been that they are on the lookout for other options and this

[41] Twaddle, 2002. Health Care Reform and Global Hegemony. Andrew C. Twaddle (ed.) *Health Care Reform Around the World*, Auburn House, Connecticut.

mobility adds to the waste and poor quality.

- Dai training and integration of practitioners of indigenous systems of medicine into national health programmes is envisaged to improve access of populations in remote area. Have any lessons been learnt from previous similar attempts? For instance are their existing strengths being identified and built upon or are they to become another set of disgruntled workers who face indignity, and stop using what ever skills they do have?

3. Increasing fragmentation of public services into isolated primary/secondary/tertiary levels, vertical programmes/general health services, surveillance/programme implementation activities, routine activities/campaigns, are reversing the acknowledged need for a comprehensive health service catering to the health needs of the marginalised sections.

4. Decentralisation is happening more as delegation of duties rather than devolution of powers to peripheral levels, with exceptions such as in Kerala. 'Local needs assessment' has been a good management tool but it has little to do with local people's 'felt needs'.

5. The primary level institutions continue to be seen by the community essentially as 'family planning' and immunisation centres.

6. There has been upgradation of the health service infrastructure, but in several areas the upgrading has meant new institutions and/or buildings and equipment but with low staff recruitment and poor maintenance expenditure, resulting in increasing exclusion of the poor and marginalised sections.

7. The central issue of performance of personnel has been by-passed completely.

8. Even if the private or NGO sectors are to perform certain tasks, surveillance, monitoring and regulation will be necessary. A responsible, efficient, public system will still be mandatory.However, the impact of 'reforms' on attitudes and mindset regarding the public health system has been regressive.

9. The public sector services have become the followers of the private sector in spheres of medical technology and skills rather than the leaders that they were in the 1970s and even in the 1980s[42]. However, the relevance and rationality of use of the new technologies still remains to be studied.

10. Specialists of repute in government hospitals have shifted in significant numbers from the public to private institutions. What is noteworthy is the fact that large numbers of doctors still choose to stay on despite the wide difference in remuneration. That they continue to work with commitment amidst adverse conditions of overcrowding and resource constraints while dealing with a greater proportion of patients from the poor sections with their own constraints needs to be recognised[43]. They are also known to use more rational treatment methods than the private practitioners[44]

[42] Jaiswal A 2002: Changing Urban Public Health Service System: Some Observations. Background note. *Proceedings of a workshop 'Societal Concerns and Strategies for AIDS Control in India'.* January 2002, The Centre of Social Medicine & Community Health, Jawaharlal Nehru University, New Delhi.

[43] Singh V: A Public Sector Doctor's Musings: What Many People May Not Know About The Public Sector. *Proceedings of a workshop 'Societal Concerns and Strategies for AIDS Control in India'.* January 2002, Centre of Social Medicine & Community Health, Jawaharlal Nehru University, New Delhi.

[44] Phadke A.R., 1996: The Quality of Prescribing in an Indian District. *The National Medical Journal of India*, 9(2): 60-65.

11. However, the perceived technologically advanced status of private institutions and the shift of doctors has further eroded the legitimacy of the public institutions. Patients too continue to shift from the public to the private sector.

    Meanwhile the health services have to deal with people's increasing vulnerability to communicable and non-communicable diseases, as we will see in the following pages. So despite recent changes, the crisis of the health system seems to have been further compounded rather than dealt with.

Trends in Morbidity and Mortality Profile

While the national data on health status is weak, it is adequate for identifying broad trends of some indices. Gains in health status are evident in the doubling of *life expectancy*, from 31.7 years in 1947 to 63.5 in 1996-2001. Infant Mortality Rate declined from 134 to 70 per 1000 live births. The negative impact of the economic and health service changes since the late 1980s on health status can be seen by the slowing down of the decline in *Infant Mortality Rates* (see data in appendix).

Morbidity continues to be high. Changes in pattern of serious morbidity can be seen from the major causes of death (Table 7). While change in morbidity rates is difficult to monitor, data clearly shows that diseases of poor living conditions – *communicable diseases and malnutrition* – remains the major cause of morbidity and premature mortality in endemic situations. Localised diarrhoea disease outbreaks, malaria epidemics with deaths, dengue, plague and Japanese encephalitis epidemics have been reported with greater frequency over the '90s. There had been marginal improvement in nutritional status by the end of the 1980s and even that is now reversed (Table 8). With continuous drought years, deaths due to communicable diseases and even starvation have been reported in large parts of the country.

While there is evidence of increasing incidence of non-communicable diseases, probably due to greater diagnostic skills and some due to changes in life styles, preliminary results of an ongoing analysis of the causes of death data reveals only a marginal increase in percentage of deaths due to *non-communicable diseases* such as coronary heart disease, diabetes and cancers (Centre of Social Medicine & Community Health [CSMCH], ongoing). Asthma and bronchitis have always been a major cause of death but now this morbidity in children is part of a worldwide phenomenon of an epidemic of allergic diseases. Environmental contamination with chemicals hazardous to human health has been widely documented by environmental scientists but there is little hard data on such non-communicable morbidity.

What has also been significant is the increase of a third set – *the unnatural causes of death* – which reflect a serious situation of 'lack of wellbeing' and social 'ill-being'. With the international scenario of only one power bloc surviving, the iniquitous, high consumption, high energy-using, ecologically destructive and unsustainable life style has been established as the desired goal of all development seekers. The elite of the third world including India became impatient to realise this dream that now seemed attainable. They were therefore ready to abandon the promise of a 'socialist, secular, republic' as articulated in the Indian constitution. Ideologies of individual merit began to overshadow more collectivist thinking.

The communities felt threatened and retaliated with a chauvinistic strengthening of community identities. Failure of their members' individual struggles for material attainment was explained by 'unfair advantages' given to other communities rather than by systemic factors, as the anti-Mandal agitations demonstrated. Conflicts surfaced, communal violence was fanned, crime

increased, women's increasing assertiveness resulted in a backlash that intensified violence against women. As a consequence of Dalit assertiveness anti-reservation campaigns and atrocities on dalits resumed.

Individual aspirations reached a high but without adequate societal support and where-with-all for their fulfilment. Mental health problems increased and suicides rose.[45] Manufacturing and transport technologies were upgraded and expanded without adequate checks and controls for safety. Thus accidents, injuries, homicides and suicides became a significant segment of the causes of morbidity and death (Table7).

The public health system is beginning to recognise these issues (e.g. gender disparity, poverty, and migration as causes for morbidity). However it is then camouflaging the issue by medicalising the problems and providing 'symptomatic relief' through medical technology without making an adequate 'diagnosis' or examination of root causes. In fact, it is not delving into the depth of these issues in the Indian context but only echoing words from international discourse, as demanded by 'project partners' i.e. the funding agencies.[46] That the RCH programme did not succeed in making any dent in Maternal Mortality[47], though unfortunate, is therefore not surprising. Moreover, the health services did not prevent the starvation deaths or even detect them. While recognising the increasing non-communicable diseases such as coronary heart disease, diabetes and cancers against which there are internationally supported control programmes, it is showing no concern about pesticide toxicity and other environmental hazards, whether towards workers handling chemicals or to the general public. There are increasing problems now afflicting the labouring sections more than the urban middle class, and they bring into question the dominant model of socio-economic development.

Research, Surveillance and Policy Processes

The orientation of the public health system and changes within it has been supported by the scientific base of research, surveillance and teaching. Planning, administrative and management structures and processes have been in tandem with the public health knowledge perspective.

Research and Surveillance

A large network of public health related research institutions have developed over the 20th century, some were set up in the colonial period and most others added post-Independence. The Indian Council of Medical Research and its subsidiary institutions (currently numbering 21) have played a major role in health research in the country, with pioneering studies to their credit in the fields of nutrition, tuberculosis, leprosy, malaria and traditional medicines. Right from the 1970s to the early 1980s this influenced public health programmes and research not only in India but also internationally. While the approach was largely bio-medical and laboratory oriented, there was simultaneously a strong stream of community-based research to feed into public health programmes based

[45] Suicides by farmers due to differential attainments of their peers who migrated, and the inability to pay back loans taken for capital intensive agriculture but resulting in crop failure have occurred in large numbers in several states. For women of reproductive age group (15-44 yrs) in rural India, suicide has become the number one cause of death. Stigma and fear associated with HIV positivity has added to the suicides due to illness.

[46] Most public health personnel are very sceptical and actually see a lot of these issues as part of the 'international fashion' since they have witnessed several such proclamations of paradigm shifts and yet little effective improvement. Often they also perceive that the proposed activity is not appropriate for the context they work in. Higher clinical efficacy is what is most easily perceived as 'effective improvement' and so a new drug regimen (as in DOTS for tuberculosis) or vaccine enthuses them more than, say, a CHW scheme or 'women's empowerment'

[47] NFHS, 1999: National Family Health Survey 1998-99. As quoted in *National Conference on Implementation of National Population Policy with Special Reference to Health Issues of Women and Children: Background Notes*. GOI, Department of Family Welfare, MOHFW: Delhi.

on field realities. The backdrop of the national movement, the Nehruvian notion of self-reliance and this contact with the 'community' sensitised at least some scientists to the necessity of finding solutions suited to the Indian context with its vast majority in rural areas, a low infrastructure and low income setting, with immense geographical, socio-economic and cultural diversity. They were able to show the inappropriateness of internationally accepted technologies and tenets and demonstrate effectiveness of other options that needed less financial and infrastructural inputs (e.g. on the issue of protein supplementation which was shown to be wasteful by Gopalan at the National Institute of Nutrition (NIN)[48] and taken up by Sukhatme at the FAO in the 1970s,[49] of mass radiography for tuberculosis screening by the national programme which was substituted by symptoms and sputum examination by Banerji & Andersen at National Tuberculosis Institute (NTI) in the 1960s,[50] of hospitalisation for treatment for pulmonary tuberculosis by the Tuberculosis Chemotherapy Centre[51] which demonstrated the adequacy and benefits of domiciliary treatment). From the mid 1980s on one can see the loss of autonomy in these institutions as they have been affected by the changing environment of international health research and policy making.

The ICMR seems to have moved from agenda setting (e.g. by the ICMR-ICSSR Study Group which produced a report 'Health for All: An Alternate Strategy' in 1981[52] and the 'Task Forces' set up for identifying the research agenda in problems significant for Indian public health in 1982) to following 'national priorities' set elsewhere. The NIN's National Nutrition Monitoring Bureau's regular household level survey that identified trends in nutritional status has been whittled down; the focus shifted from national level to surveys of one or two district and middle class diets, obesity etc. become issues of special focus in place of the stratified analysis by occupation or caste groups[53]. There is also a distancing from monitoring nutritional status for all ages towards National Nutrition Status Surveillance through children who are ICDS beneficiaries 'for early intervention'. But the NIN could not detect or predict the deaths due to drought in the late 1990s and more recent years, or even mention them post facto.

The multi-disciplinary NTI which formulated the national programme in the 1960s, trained personnel and monitored the programme for over 30 years was side-lined in the Revised National TB Control Programme when the global DOTS strategy was adopted by India in 1993. The National AIDS Research Institute (NARI) set up in the 1980s is extremely narrow in scope and vision compared to the NTI set up in 1959, despite the stronger recognition of wider social issues involved in AIDS control. It has also had a minor role to play in formulation of the National AIDS Control Programme.

This is not to say that earlier all was well with the institutions. Prima facie, one can see that they had not been effective in influencing mainstream public health perspectives despite the pro-people research findings and recommendations. When the Bhore Committee report became the vision over-riding the Sokhey Committee the larger logic had already been set.

---

[48] Gopalan, C. (1973): Effect of Calorie Supplementation on the Growth of Under-nourished Children, *American Journal of Clinical Nutrition*, Vol. 26, pp. 253.
[49] Sukhatme, P.V. (1972): India and the Protein Problem, *Ecology of Food and Nutrition*, Vol. 1, pp. 268.
[50] Banerji, A. and S. Andersen (1963): A Sociological Study of the Awareness of Symptoms Suggestive of Pulmonary Tuberculosis, *Bulletin World Health Organization*, Vol. 29, No.5, pp 665-683.
[51] Tuberculosis Chemotherapy Centre, (1959) Concurrent Trial of Home and Sanatorium Treatment of Pulmonary Tuberculosis in South India, *Bull. WHO*, Vol. 211, pp. 51-144.
[52] ICSSR-ICMR, 1981: *Health for All*: *An Alternative Strategy*
[53] NIN, Annual Reports, 1972-2002 National Institute of Nutrition, Indian Council of Medical Research, Hyderabad.

The change in the 1990s has been that now it is not even the professional logic that is deciding priorities and direction of research. It is led more than ever before by internationally initiated and funded programmes (such as RCH, DOTS for TB control, Roll Back Malaria, Leprosy Eradication, Polio Eradication, AIDS control). The programme priority and content is already decided, only supportive research is required from the Indian institutions (e.g. identifying local strains of organisms, vectors, resistance levels etc. and documenting people's perceptions in order to inform 'social marketing' and ensure implementation through health related social science research).

Surveillance has always been weak (except for malaria during the 1960s and 1970s). However earlier sentinel surveillance was possible as a majority of people accessing medical services came to public institutions that did the reporting. Now with 80 per cent outdoor and 55 per cent indoor patients going to the private sector, reporting becomes even worse and surveillance weaker.

Further, research for management of the public health service system is being done more and more through NGOs or market research organisations rather than through health research organisations. In the absence of a theoretical grounding and with a dependence on international funding, accountability shifts from professionalism to international health development agendas, even further away from the vast majority of India's people than in the earlier periods. Findings of this research then provide the basis for Health Sector Reform– for user fees, for privatisation, for medical insurance... A study on the Health Industry conducted by a market research company commissioned by the Confederation of Indian Industry (CII) to examine the ground for entry of private medical insurance and managed hospital services (a package of pre-decided services for a pre-paid price) illustrates the quality of market research. It calculates that India's population can be divided into 7 per cent upper class (defined as those with annual incomes of at least Rs.5 lakh per capita), 21 per cent middle class (2-5 lakh per capita) and 72 per cent poor (below 2 lakh per capita) and then uses these percentages to calculate the market for medical insurance[54]. Going by these figures means that just the 7 per cent upper class earn more than India's total GDP The deterioration in quality of data of NFHS round II as compared to round I has been attributed in large part to the shift from the public institutions to the private market survey agencies for data collection[55].

Planning Process

This brings us to how planning is done for the public health system. The planning shifts in India are clearly part of a global pattern. They always have been, but largely as 'professional logic' of health scientists who followed a similar pattern because of universal application of a common knowledge system. Democratic pressures led to variations in delivery systems for universal access and implementation under diverse socio-economic, political and cultural situations[56]. However, with the present undemocratic international political environment, international health planning is also affected[57]. The attempt is to homogenise the delivery system to one that is market friendly for the pharmaceutical industry and structured to facilitate operations of the insurance

[54] CII - McKinsey & Company 2002: Healthcare in India– The Road Ahead. McKinsey & Company –Confederation of Indian Industry, New Delhi.
[55] Rajan, S.I. & James K.S., 2004: 'Second National Family Health Survey– Emerging Issues', *EPW* XXXVIII (35), pp 647-51.
[56] Banerji D., 1985. *Health & Family Planning Services in India*
[57] Koivusalo & Ollila, 1997. *Making a Healthy World– Agencies, Actors and Policies in International Health*. London, Zed Books.

companies[58]. Since the 1990s the changes have been led by arguments of global finance capital, so that HSR affected all countries, rich and poor. Having implemented the HSR recommendations in the 1980s, and experienced their negative impact, the European countries abandoned them within a few years[59]. But the professional rationale continues to operate for the 'developing' world from analyses by the simplistic logic of economists rather than ecologically and socially oriented epidemiologists with an understanding of the complexities of phenomena related to health and disease. The use of Disability Adjusted Life Years (DALYs) for computing 'burden of disease' is a perfect example[60]. This technocrat's tool negates epidemiological complexity, the holistic perceptions of lay-people and provides data that shifts priorities away from health problems of the poor and towards technology centred measures[61],[62].

Even when the globalisers are forced to give in to contingencies of local context, their international prescriptions do not relate to people's perceived needs and behaviour. The World Bank's prescription of selectively strengthening the primary level services and continuing them as free services while leaving the secondary and tertiary levels to the private sector is an illustration. Minor ailments were generally being dealt with at low cost at home, or through indigenous healers, or 'informal' medical practitioners, whichever was easily available and dependent on the concerned illness. It was in cases of more serious illness or that which did not respond to the initial treatment that people resorted to the medical services of the public sector at secondary level, if not the tertiary. This was where money was being spent, which often led to long-term debt that pressured households below the poverty line. By privatising these services, the patients' burden was added to rather than relieved. Besides, the primary level strengthening does not add to general medical care since it is more for implementation of the chosen vertical national programmes than for general services. The result is that 25 per cent of patients were found avoiding treatment because of unaffordable cost in 1995-96 as against 15 per cent in 1986-87[63].

As we have seen, the mindset of a vast articulate segment in countries such as ours was ready to espouse the 'reforms'. 'Leaders' of the private sector in medical care have become part of the advisory bodies for planning and have supported the reforms whole-heartedly. Health services are viewed increasingly as money-spinners for the country, 'The health care institutions can transform India into a major medical tourism destination.'[64]

However, compulsions of democratic pressures and resistance by committed persons from within the public services itself has not allowed wholesale adoption of the proposed 'reforms'. Civil society has been involved through consultative processes, as advisory groups in the planning processes. This provides opportunities for innovating towards a people-centred view. Sensitisation of the public services to issues of gender,

[58] Qadeer I. & Sagar, A., 2001. 'Health'. In *Alternative Economic Survey 2001*. Rainbow Publishers, Lokayan, Azadi Bachao Andolan and Alternative Economic Survey Group, Delhi.
[59] Segall, M. 2000. "From Cooperation to Competition in National Health Systems–and Back: Impact on Professional Ethics and Quality of Care". *International Journal of Health Planning and Management* 15: 61-79.
[60] World Bank 1993: *World Development Report 1993*
[61] Sayers B.McA. & Fliedner T.M. 1997: The critique of DALYs: a counter-reply, Bulletin of the World Health Organization, 75(4): 383-384.
[62] Priya R., 2001. 'DALYs As A Tool For Public Health Policy: A Critical Assessment' in Qadeer I, Sen K & Nayar Kr (Ed), *Public Health & The Poverty Of Reforms: The South-Asian Predicament*, Sage Pub. 2001.
[63] Iyer, A. and G. Sen, (2000) "Health Sector Changes and Health Equity in the 1990s". In Shobha Raghuram [ed.] *Health and Equit– Effecting Change*. HIVOS, Bangalore
[64] GOI, 2002: Report of the Steering Committee for the Tenth Plan, Government of India, Planning Commission, September 2002, New Delhi.

poverty, rational therapeutics and human rights has been their significant contribution. However the planning processes have themselves been fragmented, lacking a comprehensive systems perspective. The Bhore Committee gave the blueprint for a 'comprehensive public health system' but did not give due consideration to other components of the 'health service system'– the private sector and the ISMs. In addition it recommended heavy investment in specific verticalised disease control programmes as a fire-fighting strategy for the major killers. Consequently, the development of health services in the immediate post-Independence decades focussed largely on the latter. The National Health Policy 1983 attempted to bring the focus back on a 'comprehensive public health system' with a Primary Health Care approach. The National Health Policy 2002 has entirely given up the concept of comprehensiveness by fragmenting even the public health system into a separate 'primary sector', 'secondary sector' and a 'tertiary sector'. While espousing the cause of strengthening the 'primary sector' it advocates increase in financial allocations, expenditure on drugs and a strengthening of drug-based vertical programmes. What is not spelt out is the proportion of expenditure envisaged for these programmes and their drugs versus the general health service requirements. In the name of financial and administrative strengthening in a 'realistic' manner 'in the socio-economic circumstances currently prevailing in the country', the NHP 2002 only ends up reversing the gains in building the public health system of the country. The only 'inclusiveness' it demonstrates is for the private sector and the NGOs in the public health programmes, but without any suitable mechanisms for setting 'standards' and ensuring adherence to them in practice.

What we constantly need to get back to is the organic holism of people's life concerns. Isolated measures for urgent action may be necessary but can only be effective when constructed with a holistic long-term perspective incorporating people's priorities. Understanding their worldview and visions of a good life and better health may be necessary.[65] The need of a poor woman for treatment of her husband's fever, her child's diarrhoea... has to be catered to if she is to access the services for her own problems, reproductive or otherwise.[66] Together with ensuring access, the service providers have to be made sensitive to her individual special needs. The price for ignoring of people's need for comprehensive services by the service planning process is being paid for heavily by human lives.

Addressing the Unresolved Alienation Haunting Public Health

In this era of globalisation, market and international finance led development opened the floodgates for the logic of private capital to invade the public sector. However the dominant model of development adopted by the country had also created conditions and mindsets that provided an 'indigenous' logic for following these prescriptions. Experience shows that *inappropriate plans to provide international state-of-the-art standards to all, end up providing second and third rate services to resource poor segments*, whether in development of housing, water supply and sanitation or medical services[67]. If we cannot put 15 per cent of the national budget allocation to health, we cannot implement the Bhore Committee's long-term plan. So we either concentrate resources in a limited population and coverage is poor, as of PHCs in the 1970s. Alternatively we spread resources too thin and the services are

[65] Priya. R., 1995. 'Dalit Perceptions Of Health', *Seminar, No.* 428, April 1995.
[66] Health Watch Trust 1999: The Community Needs-Based Reproductive and Child Health in India. Progress and Constraints. Health Watch Trust, Jaipur.
[67] Shrivastava Committee, 1975: *Health Services and Medical Education;* Priya R., 1993. 'Town Planning, Public health and the Urban Poor– Some Explorations from Delhi'. *EPW*, Vol. XXXVII No.7;

available but grossly inadequate in quality, as in the 1990s. Disillusionment sets in, saps worker morale, promotes corruption and discourages utilisation of public services if options are available. So it becomes a battle between 'coverage' and 'quality'; between 'social justice' and 'growth'; planning processes choose one or the other.

If somehow miraculously both criteria are met, what will it mean for health care in the present environment? It will give access to services that are iatrogenic, expensive and dependency creating[68]. But this argument can be used to justify denial of services to marginalised sections. So do we end up promoting the market for medical care? *The only way out of this conundrum is to increase access and simultaneously promote a non-medicalised, non-commodified view of health and disease among medical professionals, paramedics and the lay public. The co-existence of different paradigms of treatment and healing also provides options and checks the hegemonic power of one expert system.*

This requires *a reorientation of perspectives within medical education* such that a central place is given to the concepts of multicausality of ill-health, the natural history of disease in populations and processes underlying spontaneous cure. The role of medical interventions, whether preventive or curative needs to be understood within this perspective. Then rational management of health problems will follow. The relationship of economic, social and political context with health is another component that needs to be part of the medical professional's understanding. The issue of 'standards' and 'equality' of health services too will then acquire a different hue. Linked to social structure and issues of the poor, the dalits, tribals, women, standards and quality will have to be redefined from the base of the pyramid so as to ensure rational and safe measures at minimal cost. 'Rational management' under the conditions of the corporate sector institutions such as the Apollos and Max-Pharmas then becomes questionable as the basis for defining desirable standards for the country.

Towards People-Centred Reforms

We cannot go back to 1947 and start again on a people-centred model. *However, application of principles of the model is still a viable option – that of incrementally upgrading services in a rational manner, starting with existing resources at the community level. Structural rootedness in the local context and a scientific methodology for planning processes that triangulates people's perceptions, providers' perceptions and epidemiological rationality would minimise suffering due to health problems most effectively.* Changes in 'people's perceptions' over time would have to be taken into consideration as well as their diversity across different social segments. Measures appropriate for the marginalised sections are most likely to be least commodifying and most cost efficient and therefore useful for all sections.

This implies that we conceptualise the health service system at the broadest level based on common behaviour of lay people and the experience of health care systems. The entrenched 'ideology' is that 'prevention' is the task of public health and 'cure' of clinical medicine. This denies curative services their place as the core of any health service, with prevention of disease and promotion of health as individual and systemic level efforts. Experience shows that the immediacy of felt need is for treatment of illness.

It needs to be acknowledged that: i) Medical care is already the core in practice wherever primary level services are functioning well, ii) Disease control programmes are largely based on early diagnosis and cure, iii) When data is generated by reporting of cases by all medical care providers, identification of priority needs

[68] Illich, I., 1977. *Limits to Medicine– Medical Nemesis: The Expropriation of Health*. Penguin, Harmondsworth.

for health planning and research have a sounder basis, iv) Good medical services that build trust of the community in the health care system, and thereby strengthen response to preventive measures, v) Effective public sector services help competitively regulate prices and quality of private services[69], and vi) While medical care reduces suffering, rise in health status happens much more by non-health sector action and societal changes in access to food, environmental sanitation and socio-cultural issues of life style patterns.

Clearly, the 'culture of health services' has to change towards principles of relating and responding to local context, transparency, ethical practice and integrated thinking for prevention and cure. The challenge is to bring this about through political, administrative, professional and community interaction. Techno-managerial correctives alone cannot improve India's public health.

Fortunately, several theoretical and practical efforts are already in progress that can be drawn upon to address this challenge. Once the general direction has a wide consensus, lessons from history and the disparate efforts currently under way can be brought together to inform policy formulation and planning. Some urgent tasks that can be undertaken with this conceptualisation could include:

Strengthening Health Services that the Poor Sections Access– the public sector and the 'informal' providers. Now, with the widespread use of modern medicine and its terminology even by lay people, the content of the public services can be viewed as the 'dominant rational system' and the latter can be viewed as the 'modern folk practitioners'. The formal private sector will then be forced by the market logic of competition to perform with greater responsibility. Some possible measures:

- Using good personnel management principles, functioning of health personnel should be improved administratively through rewards and recognition for good performance and disciplining for non-attendance, negligence and malpractice. Support mechanisms must also be created for the public health personnel for dealing with the inherent legal, social and health hazards of their occupation. At the same time an environment of caring and commitment to patients and the community must be encouraged.
- Breaking the commercial nexus of 'commissions' and 'cuts' with malpractice and corruption would be crucial, as it will undermine any such efforts.
- Upgrading skills and knowledge of the informal care providers along with curbing irrational practices, through short term training programmes and courses is likely to improve services reaching the poor.
- Developing systems of societal checks and balances requires organic links of the institutional system with the community. Mechanisms that bring together both the public and private sector under common structures of community control would be of value. Processes of coalition building at local level to monitor public and private sector health services for their technical quality, ethics of practice and pricing should be evolved. Administrative structures for support of such community regulation will be essential.
- Strengthening the regulatory role of public health for drug quality and price control and minimum standards of safety.

To Identify the Essential Package of Services necessary for dealing with patients at the three levels of care in each district and state based on epidemiological rationality and people's felt need. This would include

[69] Krishnan, T.N. 1996. "Hospitilization Insurance: A Proposal". *Economic and Political Weekly*, April 13. Pp.944-946.

considerations and steps such as the following:

- 'People should not be "educated" to discard the health measures that they have previously adopted unless a convincing case can be made to show that, taking into account their perception of the problems and under the existing conditions of resource constraints, it is possible to have an alternative technology which will yield significantly greater benefits to the people in terms of alleviation of the suffering that is caused by their health problems'.[70]
- Developing a home to hospital continuum for diagnosis and type of treatment. This would allow for integration of the priority disease control programmes with the general health services, increasing convenience for patients and cost-effectiveness for the health system.
- Channelling the ISM & H to genuinely develop their own professional and scientific logic is a challenge that must be taken up, moving beyond merely 'using' their vast public infrastructure for improving coverage and implementing programmes based on 'modern medicine'.

To Develop a System of Disease Reporting and Surveillance for Tracing Trends of Health Problems Through Local Community Involvement

Selected private and public sector institutions in each district and diverse socio-economic segments could also be included. This should feed back for local action as well as be collated for state and national planning. In addition, the following activities would lead to a holistic approach to public health problems:

- The public health system must be able to monitor impact of other development activities on health e.g. malnutrition through livelihood insecurities and agricultural policies, morbidity due to violence against women, mental stress, diseases due to rural degradation and migration, toxicity through environmental pollution, injuries through vehicular and occupational accidents... It should use this to build pressure for correctives at the larger levels, which would be genuine 'primary prevention'.
- Develop processes and structures for linking health institutions with other support services in the community e.g. for battered women, destitute women and aged, terminally ill persons, orphans etc.

For Measures Such as All the Above, it would be necessary to develop criteria, principles and guidelines for 'quality' and 'standards', with the widest possible discussion and consultation.

Built around a dialogic process rather than one based on reproach or confrontation, such measures would strengthen the existing health care resources and simultaneously deal with the roots of the problems of the health services and prevent its alienation from the majority of lay people.

Finally, all this would require a vision of development at the top of the policy-making ladder and indicate that it is ready to engage with the realities of the Indian situation and the initiative of the Indian people and is not mesmerised by international standards or prescriptions.

Acknowledgements: I am grateful to Profs. Arun Kumar, Rama Baru and Alpana Sagar for discussions with them and to Vijaya Sivaraj for assistance in generating some of the tables.

[70] Banerji D., (1979) Place of Indigenous and Western Systems of Medicine in the Health Services of India. *International Journal of Health Services*, 9 (3) , 511-529.

Table 1
Health Status, Socio-economic and Health Services Development Indicators of Selected Countries by Descending Order of Life Expectancy Of Females

Indicators		Japan	Sweden	U.S	UAE	Poland	S.Lanka	Thailand	China	Russia	Brazil	Egypt	India	Bhutan	Pakistan	Bangla	Nepal	S.Africa
1.Life expectancy at	Female	84.4	82.2	79.9	78	77.5	75.3	73.2	72.8	72.5	72	68.8	**63.8**	63.2	59.8	59.5	58.3	53.9
birth 2000	Male	77.4	77.2	74.1	73.7	69.2	69.5	67.3	68.5	60.1	64.1	65.7	**62.8**	60.8	60.2	59.4	58.8	50.2
2.IMR (per 1000 live births)	1970	14	11	20	61	32	65	74	85	29	95	157	**127**	156	117	145	165	80
	2000	4	3	7	8	9	17	25	32	18	32	37	**69**	77	85	54	72	55
3.Infants of low birth weight (%)	95-2000	7	4	8	..	6	17	7	6	7	9	10	**26**	15	21	30	21	..
4.Tuberculosis cases (per 100,000)	1999	32	5	6	33	31	38	48	36	91	47	18	**123**	57	14	62	117	323
5. GDP Percapita(PPP US $)	2000	26,755	24,277	34,142	17,935	9,051	3,530	6,402	3,976	8,377	7,625	3,635		1,412	1,928	1,602	1,327	9,401
6.HDI rank	2002	9	2	6	46	37	89	70	96	60	73	115	**124**	140	138	145	142	107
7.GDP Percapita minus HDI rank	2002	2	15	-4	-19	16	19	0	0	-2	-13	-10	**-1**	7	-7	-5	6	-56
8.GDP Per Capita growth rate (%)	75-2000	2.7	1.4	2	-3.7	..	3.2	5.5	8.1	-1.2	0.8	2.9	**3.2**	4	2.8	2.2	2.1	-0.7
9.Richest 10% to poorest 10%		4.5	5.4	16.6	..	7.8	7.9	11.6	12.7	23.3	65.8	5.7	**9.5**	..	6.7	7.3	9.3	42.5
10.% of population below income:																		
$1a day (1993 PPP US$)	83-2000				..		6.6	<2	18.8		11.6	3.1	**44.2**	..	31	29.1	37.7	11.5
$2a day (1993 PPP US$)			6.3*	13.6*	..		45.4	28.2	52.6		26.5	52.7	**86.2**	..	84.6	77.8	82.5	35.8
11.Carbon dioxide emissions (per capita metric tons)	1980	7.9	8.6	20.1	35.8	12.8	0.2	0.8	1.5	..	1.5	1	**0.5**	0	0.4	0.1	(.)	7.7
	1998	9	5.5	19.9	37.5	8.3	0.4	3.2	2.5	9.8	1.8	1.6	**1.1**	0.2	0.7	0.2	0.1	8.7
12.Cigarette consumption per adult (annual average)	1992-2000	3,076	1,060	2,193	..	2,631	392	1,014	1,790	2,081	813	1,221	**119**	..	620	232	604	1,088
13.Adult literacy rate (%)	Female	..d	..d	..d	79.3	99.7	89	93.9	76.3	99.4	85.4	43.8	**45.4**	..	27.9	29.9	24	84.6
2000	Male	..d	..d	..d	75	99.7	94.4	97.1	91.7	99.7	85.1	66.6	**68.4**	..	57.5	52.3	59.6	86
14.Health expenditure																		
Public (as % of GDP)	1998	5.7	6.6	5.7	0.8	4.7	1.7	1.9	2.1	2.5	2.9	1.8	**0.9**	3.2	0.7	1.7	1.3	3.3
Private (as % of GDP)		1.6	1.3	7.1	7.6	1.5	1.8	4.8	3	1.2	3.6	..	**4.2**	3.6	3.1	1.9	4.2	3.8
Per Capita (PPP US $)		2,243	2,145	4,271	1,428	285	29	112	40	..	308	..	**..**	36	18	12	11	230
15.Physicians per 100,000 people	1990-99	193	311	279	181	236	36	24	162	421	127	202	**48**	16	57	20	4	56
16.One year olds fully immunised Against TB (%)	1999	..	13	..	98	96	97	98	92	96	93	99	**68**	90	78	91	86	97
Against Measles (%)		94	96	92	95	99	95	96	90	97	99	95	**50**	76	54	71	73	82

Source: Human Development Report, 2002, UNDP, New York

*Note: * $11 a day in place of $2.*

Table 2
Growth of Infrastructure

	SC	PHC	Dispensary	Hospitals	Med. Colleges
51 – 56	-	+	+	-	+
56 - 61	-	+	++	+	++
61- 66	-	+	-	++	++
66 - 71	+	-	-	+	-
71 - 76	+	-	-	+	-
76 - 81	+	-	-	+	-
81- 86	++	+	+	-	-
86 - 91	++	+++	-	++	+
91- 96	-	-	+	++	++
96 - 99	-	-	-	-	Some dereco gnised

Source:Based on data from Health Information of India, 1999, Directorate General of Health Services, Govt. of India.

Table 3
Public Sector Institutions of Indigenous Systems of Medicine & Homeopathy and 'Allopathy' (1999)

	ISM&H	'Allopathy'
Dispensaries	16,002	10,709
Hospitals	2,764	4,653
Colleges	322	147
Student annual admission capacity	3,846	~17,000 (estimated from incomplete data)

Source:Based on data from Health Information of India, 1999, Directorate General of Health Services, Govt. of India.

Table 4
Five Year Plan Outlay (Centre and States)

	1951-56 (Ist Plan)	1992-97 (VIIIth Plan)	1997-2001 (IX Plan)
Health	65.2	7,494.20	19,,818.40
Family Welfare	0.1	6,500.00	15,120.00
ISM&H	-	108.00	266.35
Total	65.3	14,102.20	35,204.95

Source:Based on data from Health Information of India, 1999, Directorate General of Health Services, Govt. of India.

Table 5
Selected Indicators for India for 1901 to 1991

	1901	1911	1921	1931	1941
Growth Rate of Population		6.23	0.86	10.63	15.02
Gr Rate of national income		23.35	-8.79	29.31	8.46
Gr rate of Per capita income		12.98	-1.37	6.57	-5.41
Share of Agriculture	0.73	0.69	0.68	0.59	0.57
Share of Manufacturing	0.11	0.12	0.14	0.16	0.16
Birth Rate	47.3	46.3	46.6	43.1	41.9
Death Rate	43.7	49.8	37.3	31.5	25.2
Life Expectancy at Birth	23.0	20.2	26.7	3.7	32.1
Literacy Rate/Students%	2.0	2.9	3.6	3.7	5.4
Railway Passengers (mill.)	183.1	366.6	534.6	505	651.6
Net Avail Food (ton/yr)	0.17	0.18	0.18	0.17	0.15
Share of Urban Population %	10	9.4	10.2	11.1	12.8
Poverty Ratio (3)					

	1951	1961	1971	1981	1991
Growth Rate of Population		21.63	24.82	24.64	23.85
Gr Rate of national income		46.73	73.75	35.39	73.37
Gr rate of Per capita income		19.82	12.54	7.27	36.32
Share of Agriculture	0.56	0.52	0.46	0.40	0.33
Share of Manufacturing	0.15	0.19	0.22	0.24	0.28
Birth Rate	39.9	41.7	36.9	33.9	29.5
Death Rate	27.4	22.8	14.9	12.5	9.8
Life Expectancy at Birth	32.1	41.3	45.6	50.4	58.7
Literacy Rate/Students%(2)	18.3	28.3	34.4	43.6	52.2
Railway Passengers (mill)	1284	1594	2431	3613	3858
Net Avail Food (ton/yr)	0.15	0.17	0.17	0.17	0.19
Share of Urban Population %	16.1		20		27
Poverty Ratio (3)			56.4	45.6	35.6

Sources: Economic Survey 1997 for data from 1951 to 1991.
Kumar (1984) for data from 1901 to 1941

Notes: 1. 1901 to 1941 is NDP at 1946-47 prices. Rest, GDP at factor cost at 1980-81 prices.
2. Literacy up to 1941 is students as % of population.
3. Poverty ratio for 1971 refers to 1972-73 and 1981 to 1982-83
4. Data up to 1941 and after are not directly comparable due to partition

Kumar, D. (1984).The Cambridge Economic History of India Volume II: c.1757 c.1970. Hyderabad: Orient Longman.

Table from Kumar A. (2002): 'Globalization of the Indian Economy: Some Current Issues Pertaining to The Health Sector', paper presented at the Workshop on 'Societal Concerns and Strategies for AIDS Control in India', January 18th-20th, CSMCH-JNU and CSDS, Delhi.

Table 6
Status of Health Manpower in Public Health Services in Rural Areas
(June 1999)

	Required	Sanctioned	In Position	Vacant
1. Specialists (CHC)	11,740	6,579	3,741	2,838
2. PHC Doctors	22,975*	29,702	25,506	4,199
3. Block Extn. Educator	-	6,534	5,508	892
4. Health Assistants	22,975	26,427	22,265	4,162
5. LHV	22,975	22,479	19,429	3,133
6. MPW (Male)	137,271	87,504	73,327	14,177
7. ANM	160,246	144,012	134,086	9,947

** One per PHC*
Source: Health Information of India, 1999.

Table 7
Ranking of Major Causes of Death (Rural India)

	Top Fifteen Causes (excluding senility)**		
1940s*	**1978**	**1988**	**1995**
1. Fever (58.4%)	1. Asthma	1. Bronchitis & Asthma	1. Bronchitis & Asthma
2. Respiratory diseases (7.6)	2. Pneumonia	2. Heart attack	2. Heart Attack
3. Dysentery & diarrhoea (5.2)	3. TB of lung	3. TB of lung	3. TB of lung
4. Cholera (2.4)	4. Fevers not classifiable	4. Pneumonia	4. Prematurity
5. Small Pox (1.1)	5. Heart Attack	5. Prematurity	5. Pneumonia
6. Plague (0.5)	6. Anemia	6. Fevers not classifiable	6. Cancer
7. Others (25.8)	7. Gastro-enteritis	7. Paralysis (cerebral)	7. Paralysis (cerebral)
	8. Paralysis (cerebral)	8. Anemia	8. Anemia
	9. Debility & Mal-nutrition	9. Gastro-enteritis	9. Fevers not classifiable
	10. Cancers	10. Cancers	10. Congestive Heart Disease
	11. Typhoid	11. Typhoid	11. Vehicular Accidents
	12. Tetanus	12. Resp. Inf. of the Newborn	12. Suicide
	13. Acute Abdomen	13. Acute Abdomen	13. Acute Abdomen
	14. Drowning	14. Congestive Heart Disease	14. Typhoid
	15. Vehicular Accident	15. Dysentery	15. Jaundice

*Sources: *Bhore Committee Report **Survey of Causes of Death, Registrar General of India, respective years.*

Programmes for Control of Communicable Diseases

Leena V Gangolli, Rakhal Gaitonde

Introduction

"Epidemics are like signposts from which the statesman of stature can read that a disturbance has occurred in the development of his nation—that not even careless politics can overlook."
—Rudolf Virchow (1848)

Today 57 years after independence and four years after the turn of the century when the people of the world were supposed to have achieved Health for All, the Indian people are facing the so called triple burden of disease: continuing burden of communicable diseases, increasing burden of non-communicable disease, a health system not developed enough to tackle them both[1].

While in the initial years immediately after independence we made great strides in reducing the burden of malaria, eradication of smallpox and significant improvement in the life expectancy. The later years, especially after the 1980's were marked by a stagnation in many epidemiological indices as well as re-emergence of many of the communicable diseases[2]. This later period was characterized among other things by the increasing burden of malaria, continuing burden of tuberculosis with very little impact despite great effort in the National Tuberculosis Program, increasing number of epidemics that were inadequately tackled, and epidemics of leptospirosis and arboviruses especially dengue, and the newly emerging HIV / AIDS.

The period of the 1980s was also marked by an increase in the health care infrastructure, with the construction of a large number of Sub-Centers, Primary Health Centers. There was also a huge increase in the number of medical colleges[3]. The establishment and consolidation of our pharmaceutical industry that was producing almost the whole range of necessary drugs also marked this period. There was also the burgeoning of the private medical sector with the establishment of large corporate hospitals.

The Indian economy also further 'opened up' and took to the triple mantra of liberalization, privatization and globalization from the 90's. This move promised overall development and transfer of the increasing wealth produced to the poor through the 'trickle down' effect. However more than a decade after the initiation of 'reforms' the poor and the marginalized and the common citizen in general have clearly rejected these reforms as seen in the elections of 2004, calling for a serious re-look at the reform process, that should go beyond political expediency and short term measures.

In the international scene especially in the field of communicable diseases the field was marked by increasing interest of the developed countries in this field after years of neglect – thanks to the fear of the spread of these diseases to their own countries from the developing countries and the re-emergence of certain diseases like Tuberculosis and emergence of new diseases like HIV / AIDS.

We are thus in the midst of an era of great promise, and 'development' but marked by the

[1] Frenk, Julio, Jose Luis Bobadilla, Jaime Sepulveda, Jorge Rosenthal, Enrique Ruelas.1989. Quoted from Jamison Dean T, Mosley Henry W, Measham Anthony R, Bobadilla Jose Luis. Editors, Disease Control Priorities in Developing Countries. Oxford Medical Publications. New York.
[2] Govt. Of India.
[3] National Health Policy. 2002. Ministry of Health and Family Welfare.

continuing misery of millions of citizens, increasing inequity, worsening state of health in many cases and increasing pressure from international donor agencies to adopt narrow 'technological and bio-medical' interventions.

In this chapter, the authors will attempt to present a brief analysis of the State of India's health from the perspective of our experience with communicable diseases.

A Critical Framework to Analyse Control of Communicable Diseases in India

While the etio-pathogenesis of the communicable diseases has been well worked out this knowledge has failed to contribute to their overall control due to the fact that both the incidence of communicable diseases as well as the morbidity due to them is related to a complex set of factors, and cannot be explained adequately by simplistic linear models.

The Relevance of a Social-ecological Approach to Disease

With the increasing work done in General Systems Theory and Complexity Science we have come to appreciate that the complexity of any system has to be acknowledged and studied rather than brushed under the carpet. Among the various application of these theories and their related cousins to the field of health is a group of theories combining the terms 'ecological' and 'social'. These theories have attempted to explain and identify the complexity and different levels of influence on health.

In a recent review the author says, "With these constructs at hand, we can begin to elucidate population patterns of health, disease and well-being as biological expressions of social relations, and can likewise begin to see how social relations influence our most basic understanding of biology and our social constructions of disease thereby potentially generating new knowledge and new grounds for action."[4]

The socio-ecological model identifies five levels of influence on health and health behavior: individual, interpersonal, organizational, community and public policy[5]. The model has several key assumptions including:

1. Humans shape and are shaped by their environment. In other words, the interactions between individuals and their environment are reciprocal.
2. The environment comprises multiple settings that can be viewed as a set of 'nested structures' or overlapping levels.
3. Approaches to assessment and intervention that address both individual and contextual factors are more effective than approaches that focus on a single level alone.

This means that health risks and opportunities for improved health exist at every level of the socio-ecological model. To be effective interventions must collectively address risks and opportunities at all five levels, and interventions that target the outer levels of the socio-ecological model improve health by modifying underlying factors that influence disease.

Thus the health of a given community is not determined merely by the presence of genes, germs, toxins or health care services alone, rather it is equally influenced by larger social, economic, political, cultural aspects. In other words the health of a given society is closely linked to the paradigm of development that is chosen.

While in the west health may have improved (or disease may have declined) in parallel with improvements in technology, this

[4] Krieger Nancy, 2001. Theories for social epidemiology in the 21st century: an ecosocial perspective. International Journal of Epidemiology; 30:668-677.

[5] Accessed on the internet from Chapter 6. NewLeaf ...Choices for a healthy living. www.sph.unc.edu

improvement also occurred with concomitant socio-economic development. In the developing countries however while there is huge effort in implementing bio-medical, technological vertical programs, there is little recognition of the critical importance of over all socio-economic development. In India also we seem to have borrowed certain bio-medical measures (under donor pressure?) from the west (that too in a diluted and partial manner) and are implementing these in a vertical form, in isolation from the kind of comprehensive environmental and socio-economic improvements in the west that were largely responsible for communicable disease control there.

Our experience so far has amply demonstrated in the Indian context that by continuing to ignore the social, economic and cultural reality of the people's lives, their aspirations and priorities, health planners and professionals will never be able to fulfill the promise of Health for All the government made to the people. The consistent choice of vertical programs over more 'horizontal' approaches has not only ignored local contexts but also led to a consistent neglect of the general health system which is crucial to addressing the felt needs of the people as well as to provide a basis for sustainability for any other health program. Moreover by 'verticalizing' or 'selectivizing' our approach we have approached the issue of health very simplistically, ignoring the complex issues which we must tackle if there is to be any hope for Health for All.

Limitations of the Bio-medical, Vertical Programme Approach

Both the structure of society and the technology used by society is a reflection of that society's (or the dominant of that society's) worldview, and culture (dominant culture) seems to replicate that worldview in all its various aspects including health care systems / services and policies[6]. While a given technology may be proven to be cost-effective in preventing a particular communicable disease, it is the effectiveness rather than the efficacy that will ultimately influence the overall impact. In developing countries where there is tremendous diversity in populations, including geographical, climatic, ecological as well as income disparity, food insecurity, unequal access to resources, education and health care services, the mere introduction of an efficacious technology need not ensure the desired or expected impact. In fact the introduction of any technology without paying attention to these larger contextual factors may lead in many circumstances to more harm than good.

As mentioned earlier the Government of India adopted numerous vertically oriented disease control programs. The vertical programs were attractive to the political leaders for a number of reasons. They were expected to give spectacular results within a short time; they dealt with health problems that were extensively prevalent.They were thus assured support from international organisations and western countries, and this approach seemed to offer a simple and less resource-demanding alternative to establishing a network of permanent health services to cover vast populations of the country. They could also avoid the awkward questions of poverty / inequity inefficiency etc. and thus ensure the status quo. Vertical programs are also more easily quantifiable and definable with most components in the planners 'control', this gives a sense of security to most planners. Vertical programs also have a higher probability of 'achieving targets' in the short term, though their sustainability in the long term is questionable.

In this process, finally the programme planners are left trying to balance donor pressure and their need to show results to their constituencies, the national 'need' (political) to do something while not

[6] Capra Fritjof 2003. Hidden Connections.

questioning the status quo too much on the one hand, and the needs and aspirations of the people on the other hand.

With this backdrop, many criticisms and analyses for the disappointing results of the vertical programs have been made, the following is an example of an analysis by Banerji[7].

1. An overestimation of potency of the technical tools, while the importance of some other factors (e.g. Ecology of the parasite or the intermediate host and community participation) have been underestimated. It has been assumed that merely tackling one part / node in a complex web will be enough. While such an approach may give short-term results - its long term effects and sustainability is certainly suspect.
2. Underestimation of biological consequences - especially the development of resistance.
3. Underestimation of social / cultural consequences - more survival but not means to improve or optimize quality of life.
4. Adequate attention not being paid to dealing with problems in all their dimensions - even technical tools have their sociological, cultural and economic and ecological dimensions, and these need to be addressed.
5. There was gross underestimation of the organizational and management needs for implementing the programs on such a large scale.
6. Diversion of the bulk of the very limited resources made available for developing rural health services; towards the vertical programs has had a very damaging impact on the development of a network of permanent health institutions to meet the other health needs of the people.
7. In turn weaknesses in the infrastructure have made it difficult to maintain a disease at a low level of incidence after the attack and consolidation phases are over.

With such an overall perspective, this chapter attempts to look at the Indian experience with communicable disease that led to the present through the experience with four major diseases, Malaria, tuberculosis, HIV / AIDS and polio. The experience of the various malaria programs shows us that despite money and 'simple' technology' no program can have a lasting impact or be sustainable unless supported by a well-developed general health system. The Tuberculosis program though developed indigenously and based on social science inputs failed to deliver, again due to the lack of adequate functioning of the general health system and the failure to recognize the private sector and its irrational practice as a major player. The HIV / AIDS program is an example of a program that is largely driven by western and donor pressures and technical quick fixes, not realizing or acknowledging the complex socio-economic-cultural-political dimensions of the problem. The polio story gives a similar moral. Attempting to only tackle the 'possible' (polio is one of the few 'eradicable' diseases though not necessarily the disease with the greatest morbidity) in a situation where even the bare minimum health services do not function is fraught with dangers for the new program, as well as for the existing general health system.

Malaria

"The history of malaria contains a great lesson for humanity...that we should be more scientific in our habits of thought, and more practical in our habits of Government. The neglect of this lesson has already cost many countries an immense loss of life and in prosperity."

- Ronald Ross, 1911

[7] Banerji D 1993. A social science approach to strengthening India's National Tuberculosis Program. Indian Journal of Tuberculosis

Current Status of the Problem

A plateauing in the number of malaria cases and deaths at a relatively high level, and a gradual increase and plateauing in the proportion of P falciparum among cases of malaria characterize the present situation of malaria in India.

Table 1
Trends in Malaria from 1951-2000

Year	Cases (in millions)	*P falciparum* cases (in millions)
1951	75	
1961	.049	
1981	2.7	
1991	2.11	0.92
1993	2.27	0.85
2000	2.20	1.04

Source: National Health Policy – 2002; Health information of India, MOHFW -1993; NMEP -1976-95

However, these numbers are grossly underreported, and may be regarded as indicative of trends at best.

According to a WHO document,
"the true malaria incidence is thought to be several times higher than the reported incidence", which "would represent 11 to 15 million cases in India which represents 74% of the malaria cases in this (South east Asia) Region."[8]

The reasons for this massive underreporting are not difficult to understand, given the fact that 75-80% of outpatients seek care from the private sector, which is not bound to any form of disease reporting, and considering the major gaps in malaria surveillance and official death reporting. Such underreporting especially of malaria mortality, is brought out by a recent study in Madhya Pradesh and Chhattisgarh done by scientists of Malaria Research Centre, Jabalpur:
"However, measuring mortality from malaria is difficult, as in villages there is no system of routine death certification. Deaths in women and children occur mostly at home, often before any contact has been made with the formal health service. Only the PHC hospitals, where a limited number of sick patients come for treatment, can give a reasonably accurate indication of the malaria mortality rate. The problem is compounded by poor infrastructure making the access of government facilities further difficult for seriously ill patients. Neither there are telephone services in majority of the government maintained health centers and dispensaries within the PHC/Block nor ambulances to take patients to a better equipped hospital, if necessary. The widespread food shortage increases susceptibility to infections. Thus the inference is that the number of malaria infections and associated deaths could indeed be much higher than reported (emphasis added) due to the fact that the clinical malaria cases and suspected deaths have been excluded for want of blood slide and their report. Consequently the reported data on morbidity and mortality portray only a trend and not the absolute figures as reported earlier from Orissa."[9]

The Fall and Rise of Malaria in India

This plateauing of malaria cases and deaths at a high level is despite having a national program in place from 1952. Historically the program made huge strides bringing down the number of cases of malaria from nearly 75 million to a mere 49 thousand, however these huge successes were followed by a resurgence in the number of cases and a stagnation at the 2 million level [see Table 1].

While the initial success led to the renaming of the malaria 'control' program into 'eradication' program the setback of the 1970's forced the government to re-look at the strategies. In an analysis of the situation the following are quoted as possible reasons [10]:

[8] Najera J.A.,Hempel J.The Burden of Malaria. WHO document CTD/MAL/96.10
[9] MRC Field station Jabalpur 2004
[10] Malaria control in India, Vol. 1. Ministry of Health and Family Welfare.

1. Disruption in supplies of insecticides received under bilateral assistance in the wake of the Indo-Pak war, and the fact that the very small indigenous production was inadequate to meet the requirements of the country.
2. Slow development of health infrastructure in maintenance phase areas despite plans and preparations recommended.
3. Delayed financial allocations and administrative bottlenecks.
4. Decreased supervision, diversion to other activities.
5. Lack of true community participation.
6. Precipitation of resistance to insecticides in vectors.
7. Rapid escalation of costs of pesticides.
8. Development of resistance of the parasite.
9. Low involvement of local bodies.
10. Improper environmental impact assessment of various development projects that came up around that time that became foci of outbreaks.

Subsequent to this the government launched the Modified Plan of Operation and more recently, with recognition of the receding goal of eradication, in 1999 the National Malaria Eradication Programme was rechristened as the National Anti Malaria Program. These programs were all characterized by a limited bio-medical-technological understanding and approach to the problem. They continued to focus on early diagnosis and treatment and insecticide spraying, the only difference being the focus on different population groups (the urban areas and the tribal areas in the Urban Malaria Scheme and the Enhanced Malaria Control Program respectively)[11]. Meanwhile, the recent resurgence of malaria has been characterized by a rising proportion of P. Falciparum cases, focal outbreaks (often related to ecological disturbances), and a high malarial burden on adivasi (tribal) populations.

P. Falciparum Infections on the Rise

MPO operations were able to control the P.Vivax infections to some extent, but were much less successful in tackling the more dangerous and epidemiologically labile P. Falciparum infections, a fact documented by the noted Malariologist, V.P. Sharma:

"Epidemiological investigations revealed that reduction in malaria incidence following the MPO was due to reduction in P. vivax and not P. falciparum. As a result, P. falciparum percentage continued to rise from 26% in 1965 to 50% in 2000."[12]

A similar trend of rising P. Falciparum infections, linked with Chloroquine resistance has been noted by scientists of the Malaria Research Centre the district level in M.P.:

"Analysis of malaria data collected by the Malaria Research Centre (MRC) Field Station, Jabalpur for trends (1986-2000) in five villages of Mandla revealed that in 1986 malaria was mainly due to P. vivax and P. falciparum was only 27% (Fig 3). However, from 1988 onwards there was a steady increase in P. falciparum and infection due to both parasites were almost equal in 1991 (P. vivax 49.5%, P. falciparum 50.5%). From 1992 onwards there was an increase in P. falciparum proportion while P. vivax was on decline. There was an abrupt increase in P. falciparum in 1996 and in 1999-2000, the infection caused by P. falciparum was over 90%. (emphasis added) ... The striking increase in the proportion of P. falciparum infections over P. vivax may be because of prevailing chloroquine resistance against P. falciparum which is existing in the area since 1980.[13]

Indiscriminatory, often low dose treatment with Chloroquine for all fever patients approaching Government health facilities,

[11] Kishore J 2002. National Health Programs of India, 4th edition. Century Publication, New Delhi.
[12] Sharma V.P.Malaria and poverty in India. Current Science, Vol. 84, No. 4, 25 February 2003
[13] Malaria Research Centre, Jabalpur 2004

along with irrational Chloroquine regimes often being prescribed in the private sector is likely to have contributed to this trend of rising Chloroquine resistance.

Recurrent focal outbreaks

The period since the mid-1990s has witnessed a number of focal outbreaks of malaria in different parts of the country, including in areas hitherto not considered malaria prone. This has been noted in an article by the Director and other senior scientists of the Malaria Research Centre:

"After a more or less static situation of malaria for a decade upto 1993, there have been focal outbreaks since 1994. During 1994, the states of Rajasthan, Manipur and Nagaland reported outbreaks. During 1995, the states of Assam, Maharashtra and West Bengal reported outbreaks. During 1996, the states of Rajasthan and Haryana had malaria outbreaks and during 1997, Gujarat and Goa reported malaria outbreaks. During 1998 there were focal outbreaks in Bhandara district in Maharashtra, and Calcutta in West Bengal. Goa has been recording increasing malaria incidence continuously for a few years."[14]

> The Great Indian Thar Desert, which covers 62% of the state of Rajasthan and is home to 39% of the state's population, is being irrigated by the Indira Gandhi Canal (IGC) Project, funded by the World Bank. Due to seepage of water in the IGC command area, the desert is now converted to marshland (1000 hectares converted to marshland, and 8600 hectares of land, permanently inundated), an extremely favourable environment for the breeding of mosquitoes. (Shiva and Shiva) In the malaria epidemic in 1994, over 60 % of the cases were due to the fatal P. falciparum resulting in 452 malaria deaths being officially reported in Rajasthan in that year. (WHO-SEARO). The total reported malaria morbidity in this state increased from 107 797 cases (24% *P. falciparum*) in 1993 to 229 772 (38% *P. falciparum*) in 1994 (WHO-WER 1997) implying more than a doubling in the number of malaria cases

The malaria outbreak of Rajasthan in 1994 is a classic example of ecological disturbances related to 'development' projects directly leading to a massive outbreak of malaria.

Ecotypes of Malaria: Consequences of Flawed Development, Burden on the Marginalised

Another feature in the period of resurgence has been the emergence of specific 'ecotypes' of malaria, esp. in the 1990s. These ecotypes essentially represent *disturbed ecosystems* presenting as high malarial incidence foci: Urban and peri-urban malaria, Irrigation malaria, Forest malaria, Migration malaria and Tribal malaria. It is not difficult to understand that a model of development based on increasing volumes of massive seasonal migration, especially from tribal and forested areas, with migrant workers living and working in extremely rudimentary conditions in urban and peri-urban areas is directly responsible for the epidemiological features of many of these inter-related ecotypes. Similarly uncontrolled irrigation, without health impact assessments or measures to prevent waterlogging and vector breeding, present another facet of agricultural development that is taking its deathly toll in terms of outbreaks of malaria even in areas where the disease was virtually unknown. What is less commonly recognized is that the *burden of morbidity in these ecotypes is heavily skewed towards those populations which are already marginalised*: adivasi (tribal) communities, seasonal migrant workers, agricultural labourers and peasants directly engaged in agricultural work. The linkage between malaria and poverty has now been explicitly recognized, and prevalence of

[14] Lal S; Sonal GS; Phukan PK.National Anti Malaria Programme.

malaria is higher in states with a higher level of poverty:

"A study on the relationship between poverty and malaria revealed that the malaria scenario in the last three decades shows a clear divergence, i.e. declining trend of malaria in well-performing states and a reverse situation in states whose economy continued to be stagnant. Thus malaria was linked with poverty, and poverty with environmental degradation. Improvement in the prevailing malaria situation requires a determined effort at the highest level of governance to make a difference. Key to malaria control lies in understanding local malaria with a primary attack on poverty and malaria receptivity." [15]

It is well known that brunt of this resurgence, whether in Eastern and Central India or in the North-east, has been borne disproportionately by adivasi communities, already confronting erosion of livelihoods and displacement in myriad forms. According to one estimate, 54 million tribals of various ethnic origins residing in forested areas and accounting for 8% of the total population, contributed 30% of total malaria cases, 60% of total Plasmodium falciparum cases and 50% of malaria deaths in the country.[16]

Searching for Alternatives: Socio-ecological Approach, Strengthening Public Health Systems with Focus on Primary Health Care, Actively Involving Communities

The advice of the Malaria Expert Group in 1997, "Programme and policy planners in Malaria Control must actively study and contextualize the wider socio-economic-cultural-political context in which their strategies must be located. A broader context of public policy must therefore inform their deliberations, their understanding and their strategies for action, research, training and evaluation"[17], was and continues to be ignored.

In their analysis of the situation the Expert Group identifies the following problems[18]:

1. Consistent under-reporting, which weakens and undermines the planning process.
2. Lack of flexibility – which does not allow a diversity of responses to the diverse local situations.
3. An acute shortage of entomologists and the improper deployment or support to those who are in the public health system and NMEP.
4. Continuing neglect or near total absence of environmental impact assessment of development projects.
5. Lack of adequate surveillance and adequate supply of drugs.
6. Lack of behavioral sciences and socio-anthropological and health economic research competence, especially in the area of community participation.

The Expert Group has noted, "The whole 'development model' adopted by India has been responsible for migration becoming an increasingly significant factor".

The analysis of the Expert Group and a reading of the situation after the turn of the millennium show that approaching the control of malaria in a simplistic and unipurpose fashion cannot work. A present analysis of the malaria program not only has to deal with parasite and vector resistance, drug shortages and financial shortages, but also contend with global warming, the *El nino* effect, WTO and drug pricing, migration and urbanization, and breaking down of local communities thanks to globalization. Complex situations call for actions at many fronts and levels, and these

[15] Sharma V.P. Malaria and poverty in India. Current Science, Vol. 84, No. 4, 25 February 2003
[16] Sharma, V.P. Reemergence of malaria in India Indian J Med Res 103: 26, 1996.
[17] Narayan Ravi, Sehgal P N, Shiva Mira, Nandy Amitabha, Abel Rajaratnam, Kaul Sunil Editors 1997. Towards an Appropriate Malaria Control Strategy. Voluntary Health Association of India, New Delhi.
[18] Ibid

strategies need to be sensitive to local situations if they are to make any impact.

Moreover as the Expert Group observes, "Malaria control becomes part of a Primary Health Care strategy only when the principles of (i) Community Participation; (ii) Appropriate technology; (iii) Intersectoral coordination and (iv) Social equity become central to the strategy of the control program". It also suggests, "it is the active mobilization, involvement and participation of the community in the planning, implementation and monitoring of the health program that is the crucial challenge"[19].

As an alternative to the continuing techno-managerial and linear approach to the problem of malaria that characterizes the present day situation the Expert Group suggests (among other things)[20]:

- Improving the existing surveillance system.
- Strengthening the entomological assessment / monitoring capability at the state and district level.
- Strengthen the diagnostic capacity of malaria at the PHC level.
- Building Environment Impact Assessment competencies in the country.
- Strengthen multi-disciplinary nature of the present planning process.
- Urgent need to rediscover the community in any malaria control strategy in keeping with the Primary Health Care approach, which is a national commitment.
- Ensuring that malaria becomes part of an integrated, people oriented, decentralized, enabling / empowering health policy in which the people / community becomes central to the whole policy framework.

Going back to the socio-ecological model of health mentioned earlier – we see that all the present efforts of malaria control have concentrated on the personal or at most family level (early diagnosis and treatment, spraying in the houses, personal protection methods), this neglect of the larger, community level, and policy level and international level will only be detrimental to the program. And finally, the role played by the larger context of our globalised and liberalized economy, in fuelling malaria resurgence, needs to be put explicitly on the agenda and confronted:

"Economics is central to the history of the rise and fall of nations, and to the history of disease in the people who constitute nations. The current love affair with free market economics as the main driving force for advance of national wealth puts severe limitations on the essential involvement of communities in malaria management. The task of malaria control or elimination needs to be clearly related to the basic macroeconomic process that preoccupies governments, not cloistered away in the health sector."[21]

Tuberculosis

"The dramatic increase in the global prevalence of TB since the 1980s has brought about a stark reversal in the public health optimism of earlier decades. A disease that according to many commentators was destined for complete eradication in the 1970s has rapidly become the centre of a global health crisis. The 'new' TB is in fact derived from a combination of different developments such as collapsing health care services, shifting patterns of poverty and inequality, the spread of HIV, and the emergence of virulent drug-resistant strains." - Matthew Gandy and Alimuddin Zumla, The return of the white plague

[19] Narayan Ravi, Sehgal P N, Shiva Mira, Nandy Amitabha, Abel Rajaratnam, Kaul Sunil Editors 1997. op.cit.
[20] Ibid.
[21] Kidson C, Indaratna K.Ecology, economics and political will: the vicissitudes of malaria strategies in Asia. Parassitologia. 1998 Jun;40(1-2):39-46.

Current Status of the Problem

India is the country with the largest number of TB cases in the world - accounting for nearly one-third (30%) of the global TB burden [22]. In India itself there are an estimated 2 million people detected with tuberculosis every year, and around 5 lakh deaths occur yearly due to the disease. The total number of patients with Pulmonary tuberculosis has been calculated at a staggering 17 million patients.[23] These rates have remained stagnant from the time of the first studies done as far back as 1954-58 [24]. The average prevalence of smear-positive cases has been estimated at 2.27 per thousand and average annual incidence of smear-positive cases at 84 per 1,00,000 annually.[25] According to a recent assessment which categorizes countries into groups I to IV based on their level of tuberculosis control, India has the epidemiological trend in common with the countries of sub Saharan region, with an Annual Risk of Infection between 1 and 3 per cent, and an annual decline of around 0-3 per cent, belongs in the category IV of poorest control.

These summary figures convey the scale and urgency of the problem of Tuberculosis in India, which form the context within which the National Tuberculosis Control Programme may be analysed and assessed.

The Revised National Tuberculosis Control Programme

The National Tuberculosis Program was introduced in 1962. Research has clearly shown that nearly 60 – 70% of patients with symptomatic tuberculosis were indeed visiting the health services. However majority of them were being sent back by the doctors with symptomatic treatments and cough mixture[26]. Consideration of tuberculosis as a problem of suffering (the felt need approach) and patients' recourse to general health services provided the basis for integration of NTP with the general health services. Thus NTP was designed to "sail or sink" with general health services[27] .

Global Tuberculosis Situation (Grouping of Countries)

Annual risk of infection (ARI) (%)	Annual Group decline (%)	Group
0.1 - 0.01	10	Group I Industrialised countries (Netherlands, Norway, *etc*.)
0.5 - 1.5	5-10	Group II Middle income countries(Latin America, West & North Africa, *etc*.)
1 – 2.5	5	Group III Middle income countries(East & South East Asia, *etc*.)
1 - 2.5	0 – 3	Group IV (Sub-Saharan Africa and Indian Sub-continent, *etc*.)

(Chakraborty, 2003)

[22]Ed. Nayak, R., Shaila, M. S. and Ramananda Rao, G *Status of Tuberculosis in India – 2000.*Society for Innovation and Development / Indian Institute of Science, Bangalore, 2000

[23] Chakraborty A.K. Epidemiology of tuberculosis: Current status in India. Indian J Med Res 120, October 2004, pp 248-276

[24] Kishore J 2002. National Health Programs of India, 4th edition. Century Publication, New Delhi

[25] ibid.

[26] Banerji D, Anderson S 1963. A sociological study of the awareness of symptoms suggestive of pulmonary tuberculosis. Bulletin of the World Health Organization; 29:665.

[27] Banerji D 1993. A social science approach to strengthening India's National Tuberculosis Program. Indian Journal of Tuberculosis; 40:61-81.

In spite of this broad sociological framework and integration with the general health services a recent review noted that "thirty years of NTP, from 1962 – 1992, became notable on account of the achievements falling far below expectations, frustrating shortages of anti-tuberculosis drugs, and annoying deficiencies of budgets, logistics, supervision and corrective action"[28]

A formal evaluation by the WHO and SIDA concluded that the program suffered from – managerial weakness, inadequate funding, over reliance on X-ray as the means of diagnosis, non-standard treatment regimens, low rates of treatment completion and a lack of systemic information on treatment outcomes[29].

Based on this 'failure' of the NTP the government of India introduced a internationally funded program designated as the RNTCP in 1992-93. The 5 main components of the RNTCP were[30]:

- Political commitment
- Diagnosis primarily on the basis of sputum examination.
- Regular and un-interrupted supply of anti-TB drugs.
- Direct observation of every dose.
- Systematic monitoring, supervision and cohort analysis.

Banerji says, "the assumption that the drug administration must be directly observed by RNTCP staff, not only involves considerable expense, which includes high cost of the technology used, but it also requires enormous managerial and organizational efforts to ensure that the patients, who are scattered over large areas, receive treatment"[31]. In one pilot study of the implementation of RNTCP in Hoogly district of West Bengal, "the performance data revealed that, epidemiologically the RNTCP covered less than a fifth of the sputum positive cases as assessed by the prevalence figures of the National Sample Survey of 1955 –58. Also RNTCP is sucking in a substantial proportion of resources from the already resource starved infrastructure, thus causing problems for implementing other health programmes, including, ironically, implementation of NTP in the non-project areas"[32].

Problems with DOTS

Randomised controlled studies in South Africa[33]and Thailand[34] gave conflicting results with regards to DOT vs non-DOT. A subsequent study in Pakistan[35] showed that

---

[28] Nagpaul D R 1997. Editorial – Evolution of Indian NTP. Indian Journal of Tuberculosis; 44:59-60.
[29] Khatri G R 1999. The Revised National Tuberculosis Control Program: A status report on first 1,00,000 patients. Indian Journal of Tuberculosis; 46:157-66.
[30] ibid
[31] Banerji D 1993. op.cit
[32] ibid
[33] Zwarenstein M, Schoeman J, Vundule C, et al. Randomised controlled trial of self-supervised and directly observed treatment of tuberculosis. The Lancet 1998; 352:1340-43. Quoted form. Walley John D, Khan Amir M, Newell James N, Khan Hussein M. effectiveness of the direct observation component of DOTS for tuberculosis: a randomized controlled trial in Pakistan. The Lancet 2001; 357:664-69.
[34] Kamolratanakul P, Sawert H, Lertmaharit S et al. Randomised controlled trial of directly observed treatment (DOT) for patients with pulmonary tuberculosis in Thailand. Transactions of the Royal Society of Tropical Medicine and Hygiene 1999; 93:552-57. Quoted from Walley John D, Khan Amir M, Newell James N, Khan Hussein M. effectiveness of the direct observation component of DOTS for tuberculosis: a randomized controlled trial in Pakistan. The Lancet 2001; 357:664-69.
[35] Walley John D, Khan Amir M, Newell James N, Khan Hussein M. effectiveness of the direct observation component of DOTS for tuberculosis: a randomized controlled trial in Pakistan. The Lancet 2001; 357:664-69.

there was no difference in the two groups. Studies also showed that all interventions (including reminder cards, education, home visits etc) introduced to increase adherence were effective[36]. However it was noted that there were no randomized trials assessing DOT at that time. These two groups of studies question the WHO's and RNTCP's over insistence on the DOT component, while suggesting that there were numerous other interventions that have evidence for their effectivity. What is equally important are the questions of acceptability of DOT by the patients as well the cost of implementing and sustaining a DOT strategy – especially in resource poor settings.

DOT creates numerous problems to the patients including direct and indirect costs – almost equal to a weeks wages for the intensive phase according to the Pakistan study, the question of acceptability of the observer, lack of escorts for women, rudeness of the health care staff, stigma attached etc. Studies have similarly suggested that compliance is better among patients who are observed by persons of their choice rather than those imposed by the health system[37]

Inbuilt Barriers to Access in the DOTS Programme

The program guidelines state that all individuals presenting to the clinics and diagnosed with tuberculosis need to be put on the RNTCP regime and entered in the registers for follow up. However, a study conducted in New Delhi[38] showed that a number of patient, provider and broader social factors are leading to the non registration of a number of people. The most common reason for non enrolment from the side of the patients is one of logistics-for daily wage labourers, or those in school, or those who live too far from the DOT center, coming to the center on alternate days for medicine was not possible. From the provider side, patients were often not registered for DOT and would be offered the standard chemotherapy (12-18 months, unsupervised), if it was felt that they may not adhere to the DOT regime and hence adversely affect the results of the particular clinic. The study showed that providers had identified a number of factors which they felt would hamper treatment completion, and developed a means for identifying patients they suspected would discontinue. Based on the data collected in the study, the authors constructed an algorithm for TB patients to be registered in RNTCP.

The exclusion factors in the table represent the most vulnerable of society and those for whom the care and support of the public health system is most essential. However, the target driven approach taken by international and national tuberculosis policy forces the front line providers to focus on cure rates. The whole system is geared to cure and not to care for patients. To really care, the other needs of the patients need to be addressed as well. For

[36] Volmink Jimmy, Garner Paul. Systematic review of randomized controlled trials of strategies to promote adherence to tuberculosis treatment. British Medical Journal 1997; 315:1403-06.
[37] Department of Community Health, Christian Medical College, Vellore. Unpublished.
[38] Singh V et al. TB control in Delhi, India. Tropical Medicine and International Health. Vol7 No8, pp 693-700,August 2003

Table 2
Entry Algorithm for TB Patients to be registered on the RNTCP [39]

Suitability for RNTCP assessed through:	Patient "suspect" if
Proof of Residence: ● Ration card, voter's card or any other legal document ● Guarantor from the Community	No ration card, or A married woman staying with her parents, not enrolled on their ration card.
Duration of stay in the area: ● Long term residence in Delhi	Recently moved to Delhi Short stay at current address Recent migrant with family still in the village
Job/Occupation ● Permanent or government job	Daily wage earner (construction worker) Factory worker with shift duties Contract workers (export garment workers)
Visit by DOT centre worker ● Overall impression of patient's home ● Convenience to clinic and/or for defaulter retrieval	Difficult to reach the patient (residence is far from the centre) House is difficult to locate.

example, the DOTS program in New York City[40] recognized that many of its beneficiaries were homeless people and started offering food coupons with the daily dose of medicines.

Exclusion of "Low-Priority" Patients

Médecins Sans Frontières recently conducted a review of the current global strategy for controlling TB, including the DOTS strategy. One of the findings of this review was that the DOTS approach tends to exclude 'low priority' patients.

"The conviction that TB control was the main goal led to an acceptance that the individual needs of the "few" – actually almost 50% of all TB patients – were outweighed by the public health good of the "many". ... there was little interest in developing better tools or strategies for "low-priority" patients, i.e. anyone not testing smear-positive and therefore not considered as infectious."

The review notes that*"the WHO advice to National TB Programmes still states that "the highest priority for an NTP is the identification and cure of infectious cases, i.e. patients with smear-positive pulmonary TB"; that one of the roles of case definition is to "prioritise treatment of sputum smear-positive cases"; and that "from a public health perspective, extra-pulmonary TB is not of great importance because patients with this form of disease are not infectious". Treatment for chronic and MDRTB patients is discouraged ..."*

"MSF staff has observed that in some countries smear-negative patients are deliberately not treated, particularly when there are resource constraints. ... In some cases, countries exclude patients previously treated under non-DOTS

[39] Singh V et al. TB control in Delhi, India. Tropical Medicine and International Health. 2003 op.cit.
[40] World Health Organization.Stop TB at the Source, TB Programme.1995

regimens even though this may represent 10-50% of patients in some settings[41]*; or disadvantaged patients are excluded from best available treatment".*[42]

Increased Burden on Patients and Health Systems

The MSF review notes that *"DOTS places an enormous social and financial burden on patients, who are sometimes required to undergo lengthy hospitalisation or stays in or near treatment centres in order to meet the direct observation (DO) requirement. DO (Direct Observation) continues to be one of the most contentious aspects of DOTS. …But DO is time-consuming and labour-intensive and requires continuous motivation and training of health care workers to be effective. Individuals suffering from TB sometimes perceive the DO requirement as implying that they are incapable or irresponsible with regards to their own health – some patients even view DO as demeaning or punitive…."*

"While first-line TB drugs are affordable, they require an expensive and cumbersome system of administration. …the cost of administering the drugs in the recommended manner is far higher than the cost of the drugs themselves. These costs are one of the chief obstacles to expanding DOTS, in particular in high-burden TB/HIV settings."

The MSF review estimated that in India, the cost of drugs per treated case of infectious TB was US$ 7, while the additional costs to the public health system, related to direct observation etc. were of the order of $50 to $194. Whether these large additional resources – primarily related to the staff time devoted to direct observation – could be spent by strengthening the public health system in a more effective manner, is a matter of further study and debate.

Questions About Effectiveness of DOTS

While within the DOTS model, the positive role of better availability of drugs has been noted, the contribution of the 'Direct observation' (DO) component is more doubtful. The MSF review has noted:

"DO does not systematically improve adherence to treatment: compliance depends on a whole range of cultural, social and economical factors, and other strategies for improving adherence might be as effective as DO. In a randomized controlled trial comparing self-administered and directly observed treatment of TB, self-supervision outcomes equivalent to DO were reported."

A recent major study in Mumbai noted that despite well administered DOT, only 70% of patients achieved cure, raising questions about the actual effectiveness of DOTS:

"While all the patients at our center received fully supervised treatment as recommended by the WHO, this is not routine practice under Indian RNTCP. Recent studies have shown that only one out of five DOTS workers ensures supervised swallowing of the doses, while others either ask the patient to go to the next room or hand over the entire weekly pack to be taken at home. So, what started off as DOTS ends up being POTS (partially observed treatment, short course) or even KNOTS (knowing but not observing treatment, short course)."

---

[41] Cox H & Hargreaves S. To treat or not to treat? Implementation of DOTS in Central Asia; *Lancet*, 2003, Vol 361, p. 715. Reported cases in Kazakhstan, China and India.

[42] http://www.ncbi.nlm.nih.gov/entrez query.fcgi?cmd=Retrieve&db=PubMed&list_uids=12167096&dopt=Abstract): Singh V. et al. TB control, poverty, and vulnerability in Delhi, India**,** in *Trop Med Int Health*. 2002 Aug;7(8):693-700. Operational research studies in two pilot sites in New Delhi from 1996 to 1998 showed that health workers screened patients to determine their ability to conform to the direct observation. If the health worker was confident that the patient would comply and/or be easy to trace in the community in the event of 'default', they were provided with short-course treatment under the RNTCP. Other patients, largely those who were in absolute poverty and socially marginalized, were put on standard TB treatment as for the previous National TB Programme. The programme was evidently excluding the most vulnerable from the best available care.

"Despite claims of high cure rates when using DOT under RNTCP, only 70% of patients in our study were cured or completed treatment despite fully supervised therapy. The results are similar to those observed in some of the recent case-control studies. Reasons for the lower cure or completion rate in our study could be that the reliable microscopy laboratory used by our centre was better able to detect treatment failure, that there was a high default rate owing to the availability of loose drugs and loss of cases to private doctors, or that the cure rates claimed by the RNTCP are of questionable reliability."

The Need to Address Patient and Provider Attitudes

The current programme has also failed to address the health seeking behavior of people who often first seek care from the private sector, for its perceived better quality[43], the anonymity it offers (versus having a health worker come home for an inspection, and thereby the social stigma of tuberculosis) and often because that is where medicines are available. It has also failed to influence prescribing practices of private health care providers, who do not follow a protocol and thereby contribute to multidrug resistance, in addition to referring the patients to public care after they are seriously ill and can no longer be looked after in the private sector. In a survey conducted in Mumbai, it was found that up to 80 different drug combinations were being used, most of which were inappropriate[44]. The threat of multi drug resistance looms large, acquired resistance for INH can be as high as 67%[45]. A WHO global review of drug resistance in TB has noted, based on studies in Tamil Nadu that 24% of all TB patients suffer from drug resistance to at least one of the four frontline drugs[46].

The training component requires a motivation building and interpersonal communication improvement, as another behavioral intervention. People often access the private sector because they feel the staff in the public sector treat them rudely.

> *RJ, a 38 year old man registered under RNTCP had been regularly taking his drugs under DOT for 2 weeks. In spite of a perennial water shortage in the center, a jug of water was usually made available by the health worker. On one occasion, there was no water in the jug, and when RJ requested the health worker for water, the health worker, already under a lot of stress himself, threw away the treatment card. Therefore, after 2 weeks of DOT he left and went back to the private doctor. He is now continuing with the private sector.* (Jaiswal A.et al. Adherence to TB Treatment in Delhi. Tropical Medicine and International Health. Vol8 No7,pp 625-633,July 2003)

Keeping in view the multiple problems with this 'One size fits all' approach, rather than investing all one's scarce resources and getting rigid and inflexible over a costly and as yet un-proven component of the DOTS strategy, it may be better that one should assess the situation locally and come up with locally relevant and appropriate interventions using the already available evidence. In other words, there is a need to look for flexible solutions that fit into local cultural contexts. Supportive motivation to take regular treatment could be carried out by trained people in a community. For example, medicines could be made available through Anganwadis, where mothers bring their

[43] International Institute for Population Sciences and ORC Macro. National Family Health Survey (NFHS-II) 1998-99. India.

[44] Uplekar M, Rangan S. Tackling TB-the search for solutions. The Foundation for Research in Community Health, 1996. and Stop TB at the Source, TB Programme, Who, 1995, page 12.

[45] Jain NK et al Initial and Acquired Isoniazid and Rifampicin resistance to M tuberculosis and its implications for treatment. Indian Journal of Tuberculosis 1992;39:321-4

[46] World Health Organization, 2000

children, or through schools, where women drop their children. The basic idea is that if planners and policy makers move from cure to care and are really committed to bringing down tuberculosis in the country as opposed to meeting targets every year, a lot of creative innovations can be tried and we can have a program more suitable for our local needs.

Sinking together or rising to meet the challenge?
The experience of the TB programs teaches us that inspite of there being a multisectoral inputs in the development of the NTP, because it was integrated with the general health system, it failed, as the general system could not respond to the challenge.

One example of this is the continuing major infrastructural gaps in the Primary Health Care system, preventing timely diagnosis of cases. The diagnosis of tuberculosis requires acid fast staining of the sputum, to detect tuberculosis bacilli. Naturally this requires not only laboratories with microscopes, but also adequate and regular stocks of reagents for staining, and trained personnel to detect the bacteria and safely dispose of the slides. However, a Facility survey carried out by the IIPS showed that out of 7959 PHCs surveyed across India, only 46% have a laboratory. In states like Gujarat, Maharashtra, Haryana, and Punjab, 90% of PHCs have a laboratory, while in others like Assam, Bihar, Madhya Pradesh and West Bengal, not even 20% have a laboratory. Only 39% of PHCs have a lab technician, essential for any functional case detection process.[47]

As Banerji says, "if the health system is inadequate, NTP also suffers from the inadequacies. The solution, thus, does not lie in attempting to remove inadequacies in the NTP alone but rather in the entire health services system"[48]. The other important lesson comes from recent evidence regarding the effectiveness of the DOT component, this cautions us – that everything coming from the west need not be appropriate or even right. We need to come up with our own experiences and operations research, like we have already shown we are capable of in the development of the NTP.

HIV/AIDS

HIV / AIDS is deeply symbolic of the collective malaise our society faces in the era of globalisation and liberalisation. It has been said with justification that HIV / AIDS is a development issue, that HIV / AIDS is a resurgent infectious disease, that HIV / AIDS is a public health crisis, and that HIV / AIDS is a major rights issue for a range of people whom this problem impinges upon. Keeping these and other dimensions in mind, nosweeping generalisations or vertical solutions are likely to be able to address this problem in its entirety. Neither exaggeration nor denial is likely to serve the cause of tackling the problem effectively. The complex and multidimensional nature of the problem requires among other things, an approach that can grasp the myriad socio-economic processes fuelled by the process of globalisation-liberalisation responsible for the emergence and spread of the epidemic, the health system crisis that needs to be urgently addressed in order to present an integrated response to it, the range of socio-behavioural factors that need to be addressed for prevention, and the rights of affected persons to comprehensive care and social acceptance as part of a larger vision of health related human rights.

Current Status of the Problem

The first serological evidence of HIV infection in India was discovered amongst female sex workers in Tamil Nadu in 1986. Since then, studies conducted all over India have shown that the infection is prevalent in a number of population groups as well as locations. Today,

[47] International Institute for Population Sciences. Facility Survey.1999. page 103
[48] Banerji D 1993. A social science approach to strengthening India's National Tuberculosis Program. Indian Journal of Tuberculosis; 40:61-81

HIV has been detected in 29 of India's 32 states and territories. The epidemic is considered generalized (with the prevalence amongst pregnant women attending antenatal clinics being more than 1%) in six states and union territories- Andhra Pradesh, Karnataka, Maharashtra, Manipur, Nagaland, and Tamil Nadu.[49]

The National AIDS Control Organization of India (NACO) estimates the number of people with HIV in India at 5.1 million in 2004.(These estimates are based on sentinel surveillance data collected at antenatal clinics and sexually transmitted disease clinics all over India.) India has the second highest number of people living with HIV/AIDS in the world after South Africa. India accounts for almost 10 per cent of the 40 million people living with HIV/AIDS globally and over 60% of the 7.4 million people living with HIV/AIDS (PLWHA) in the Asia and Pacific region. Given the large population base, a rise of just a few percentage points in the HIV prevalence rates can push up the number of those living with HIV/AIDS to several millions.[50]

However, it should be kept in mind that present estimation of the HIV burden in India is based on 36 parameters, of which 6 are based on sentinel centers (data for women comes from sentinel surveillance at 200 antenatal clinics, and for men from 166 sexually transmitted disease clinics[51]. The other 30 parameters are based on debatable assumptions. Changing a few of these assumptions could change the NACO estimate significantly[52].

Determinants of the Spread of HIV

Of the three modes of spread of HIV- sexual contact, mother to child transmission, and through infected blood (transfusions and intravenous drug use), in India, the predominant mode of spread is through sexual contact (80%, World Bank, 85% UNAIDS), while the other 15% is accounted for by the other modes.

Interventions to control the spread have therefore concentrated on these three modes and have been linked with a verticalization of the program. Efforts are concentrated on creating awareness of the disease, safe sexual practices and distribution of condoms. Measures have also been initiated to provide anti retroviral therapy (ART) to people suffering from HIV in a phased manner.

However, most of the existing approaches fail to take into consideration the other key determinants that lead to the spread of HIV: socioeconomic factors (poverty, lack of education, unemployment, marginalisation of women), industrialization and development concentrated in urban areas, migration patterns, macro-economic policies, national debt etc.

Economic Policies and the Impact on HIV

" Structural Adjustments raise particular problems for governments because most of the factors which feed the AIDS epidemic are also those factors that come into play in Structural Adjustments Programs" (Dr. Peter Piot, Director UNAIDS)

In response to indebtedness, governments in developing countries have been forced to increase export oriented industrialization and to reduce government expenditure. The model adopted for economic growth has led to the growth of industry and therefore employment in urban areas. This has brought about migration from rural communities into the cities. Long periods of separation from families, a sense of loneliness and alienation and work related pressures often drive people

[49] Over M et al. HIV/AIDS Treatment and Prevention in India Modeling the Cost and Consequences. The World Bank.2004.
[50] Ibid
[51] Ibid
[52] Ibid.

into high risk behaviors, including use of drugs and alcohol and multiple sex partners. Mobile populations like migrant laborers also become the route for infection to spread to other geographic locations as well as back to their spouses. Poverty and unemployment also drive people into transactional sex, again involving multiple partners and sometimes reduced negotiation power for safe sex practices.

Public sector services, like health care and education, are often the worst hit in attempts to reduce government expenditure. The introduction of user fees for health care reduces access to care for financially vulnerable people. This will not only impact their general health adversely, it will also block their access to information and therefore awareness of HIV and their access to diagnosis and treatment of HIV and opportunistic infections. Withdrawal of the government from primary education tends to increase the rate of dropouts, particularly of girls and increase their vulnerability in a number of ways-they will miss out on the awareness drives carried out through schools, and with no education and therefore a chance at financial self reliance, may be driven into commercial sex. The removal of food subsidies would make food more expensive for families, therefore leading to reduced consumption and malnutrition as well as driving the women and children of the household into commercial sex to feed the family.

A completely biomedical approach to tackling AIDS therefore can only hope to deal with the 'iceberg' of infected people or so-called 'high risk groups'. Even though awareness drives and condom distribution are seen as preventive measures, these initiatives fail to address what drives people into vulnerable situations exposing them to unsafe sex in the first place. Unless there is a questioning of the developmental processes and attention is given to access to health care, education and food security for socio economically vulnerable sections of the population, there is little hope that the roots of the epidemic can be attacked.

The Public Health System and HIV/AIDS

The findings of the facility survey discussed in the sections above bring to light the fact that unless there is serious effort at strengthening the public health system in all the states, there is no way the health system will be equipped to even challenge the epidemic, let alone contain it. Health facilities will need to have much more than just stocks of condoms and awareness posters. The early diagnosis and treatment of HIV and opportunistic infections requires comprehensive strengthening of diagnostic facilities, availability of trained personnel and functional health systems at all levels. As a group of community-oriented health activists has noted:

> "... the goal of urgent, major strengthening of the public health system in India, which today has reached crisis point, in order to make it an effective vehicle for delivery of a range of services including those required to tackle HIV-AIDS. Health systems, including staff, infrastructure, equipment and supplies, organizational frameworks, financing systems and delivery mechanisms, cannot be made effective to tackle a single disease, without overall comprehensive strengthening.
>
> In fact, when it comes to care of people with HIV/AIDS, there should be seamless continuity from basic health care to HIV care. A functional health care system is necessary for Primary Health Care, but essential for care of HIV/ AIDS. This is because in developing countries, infections such as tuberculosis, diarrhoea and pneumonia are among the commonest manifestations of HIV-disease and, in fact, these illnesses may cause mortality in a patient with HIV disease even before manifestations of classical AIDS show up. Therefore an effective programme for

the care and support of HIV / AIDS, which is no doubt essential, is not possible without an effective programme for basic health care that effectively diagnoses and treats all the common and important infections. ...

To take this point further, any hospital or health care facility, which expresses incapacity to look after patients with HIV / AIDS, is not capable of looking after any sick person. To put it the other way round, any place that looks after sick people should follow standard precautions (such as sterilisation, waste disposal and infection control) and logically should also have the capacity to look after patients with HIV / AIDS. *Since the serological status of the vast majority of patients with HIV / AIDS is not known,* it is clearly *more important to work for overall well-functioning health systems rather than segregated HIV / AIDS care centres.*

There is no doubt that patients with HIV / AIDS require special care that must be urgently provided for. But it is also true that *these people need a functioning and strengthened health-care system more than others do,* and our approach should be based on that. An exclusive emphasis on HIV / AIDS care is justifiable wherever well-functioning health care systems exist. But in countries where basic health care is not ensured, prioritising HIV/AIDS care in isolation will not only be met with lack of success in the public health sense; it may also jeopardise the struggle for basic health care by sidelining it and making it appear less relevant."

Further, it should be emphasised that the management of HIV positive people does not start with a positive ELISA and end with ART. There are a number of other services which are vital and an only be delivered through an overall strengthened health system. The virus incapacitates the immune system of the person, making him/her susceptible to opportunistic infections (for example, bacterial infections like tuberculosis, fungal infections like candidiasis, viral infections like herpes and cytomegalovirus) and neoplasia (for example, Kaposi's sarcoma). Opportunistic illnesses vary across countries, with tuberculosis accounting for almost 50% of opportunistic infections in people with HIV/AIDS in India. The most common presentation of people with Tuberculosis and HIV is weight loss, which might often be missed as a symptom of tuberculosis in a health system where chronic, productive cough is regarded as the cardinal symptom of TB. Additionally, as the CD4 count declines, people with active tuberculosis are less likely to produce positive sputum smears than people without tuberculosis.[53]

Keeping the health system context in mind, there are certain considerations to be kept in mind while using antiretroviral therapy in resource poor settings. The public health system presently in place is hardly equipped for the management of drug toxicity (ranging from mild irritation to potentially life threatening illness), monitoring for adherence, and testing for drug resistance. Experience with tuberculosis control in India has shown that drug resistance evolves from what is called "therapeutic anarchy"[54], which is the erratic and unscientific prescription of drugs. All these drugs are freely available over the counter. The lack of regulation of the medical sector has allowed non qualified practitioners to flourish and promise miracle cures for HIV. Even among qualified professions, there are large variations in prescribing practices, few adhering to standard treatment protocols, as shown in the studies related to tuberculosis. European studies show that adherence levels

[53] Over et al, 2004. op cit

[54] (John J.T. HAART in India: Heartening prospects & disheartening problems Indian J Med Res 119, June 2004, pp iii – vi)

of at least 95% are required to prevent resistant HIV forms from developing[55] Preliminary data from a survey of doctors prescribing antiretroviral therapy reveal that only 30% of patients who are started on ART remain on therapy one year, and overall adherence is low among patients.[56] A study in Mumbai showed that 18% of patients newly diagnosed with HIV are already resistant to one anti retroviral.[57]

Keeping these facts in mind, it is clear that rolling out of anti-retroviral therapy must be anchored in a larger context, and must be accompanied by effective measures for strengthening capacities of the Public health system, and regulations to ensure adherence to rational treatment protocols in both private and public sectors. Further, it would be irrational to implement ART while disregarding a range of less resource demanding measures, which are very important in the management of a person with HIV/AIDS. Such important complementary measures include effective treatment of common opportunistic infections, intensified case-finding and treatment of TB, proper nutritional care, psychosocial support for persons living with HIV/AIDS and their families and appropriate palliative care.

Similarly, regarding low-cost diagnostics, rapid on site tests are available which can be used for screening purposes. These do not require highly specialized training and can be stored at room temperature. In high prevalence, resource-poor settings, rapid on-site HIV testing is feasible, accurate and highly cost-effective, substantially increasing the number of patients post-test counseled, and a single rapid test may be sufficient.[58] Nevertheless, confirmatory tests (ELISA and Western Blot) would need to be carried out on those testing positive in the screening, and these tests would need to be made accessible through laboratories in the public health system.

Care and Support Activities, According to Need, Complexity and Cost

Essential Care Package

- HIV voluntary counselling and testing
- HIV screening of blood for transfusion
- Psychosocial support for PLWHA and their families
- Palliative care
- Treatment of common HIV-related infections : pneumonia, diarrhoea, oral thrush, vaginal candidiasis and pulmonary TB
- Nutritional care
- STI prevention (including condom use) and care
- Family planning
- Prevention of mother to child transmission of HIV
- Cotrimoxazole prophylaxis among HIV-infected people
- Universal precautions
- Health policy activities, such as the regulation of care delivery and drugs supply
- Recognition and facilitation of community activities that mitigate the impact of HIV infection (including legal structures against stigma and discrimination)

[55] Paterson D.L et al. Adherence to Protease Inhibitor Therapy and Outcomes in Patients with HIV Infection. Annals of Internal Medicine 1331:21-30.
[56] Hira S.K. Study of ART prescribing physicians in India. A background paper to *HIV/AIDS Treatment and Prevention in India*. Washington DC. World Bank.
[57] Hira S.K. Patten of Resistance to ARV Drugs in Mumbai. Paper presented at the Second International Conference on HIV/AIDS and Substance Abuse, December 1-3, 2002. Mumbai.
[58] Wilkinson D, Wilkinson N, Lombard C, Martin D, Smith A, Floyd K, Ballard R. On-site HIV testing in resource-poor settings: is one rapid test enough? AIDS. 1997 Mar;11(3):377-81.

Care and Support Activities of Intermediate Complexity and/or Cost

ALL THE ABOVE PLUS

- Intensified case finding and treatment for TB, including for smear negative and disseminated TB among HIV-infected people
- Preventive therapy for TB among HIV-infected people
- Systemic antifungals for systemic mycosis (such as cryptococcosis)
- Treatment of HIV-associated malignancies : Kaposi's sarcoma, lymphoma and cervical cancer
- Treatment of extensive herpes
- Post exposure prophylaxis of occupational exposure to HIV and rape
- Funding of community efforts that reduce the impact of HIV infection

Care and Support Activities of High Complexity and/or Cost

ALL THE ABOVE PLUS

- Highly active antiretroviral therapy (HAART)
- Diagnosis and treatment of HIV-related infections that are difficult to diagnose and/or expensive to treat, such as atypical mycobacterial infections, cytomegalovirus infection, multiresistant TB, toxoplasmosis, etc
- Advanced treatment of HIV related malignancies
- Specific public services that reduce the economic and social impacts of HIV infection

The Rights of People Living with HIV/ AIDS (PLWHA)

The connection between vulnerability of certain social groups and communicable disease, particularly HIV has already been discussed. Within this context, PLWHA are further marginalized both by the general public and the health system due to stigma and fear associated with HIV. This impacts access to health care as well as quality of health care. Anecdotal evidence suggests that HIV positive people are often denied admissions into hospitals, discharged upon discovery of their HIV status,isolated in the wards, denied operative procedures unless they procure universal precaution kits and meted out discriminatory treatment by health care providers[59].

In addition to ensuring access to diagnosis and treatment of opportunistic infections and HIV infection , special attention needs to be given to the protection of certain rights of PLWHA in the context of the social impacts of HIV infection. This includes the right to employment protecting people from losing a job due to HIV status, property inheritance laws which are of vital importance to women whose husbands have died of AIDS and who have been thrown out by their families. The latter mentioned law is of great importance in the Indian context where women are often married to infected men with the intention of care giving during the period of illness and are deserted by the family upon the death of the man. The woman is often left without any property and is herself infected.

Studies show that a rights based approach has a longer lasting impact. Empowerment of the commercial sex workers of Sonagacchi in Calcutta improved their negotiation ability for safer sex and has actually brought down rates of sexually transmitted diseases. There are similar efforts being replicated in other parts of the country. The clean needle exchange program being carried out in Manipur is another example of an intervention where a vulnerable group (intra venous drug users) are being protected from the spread of HIV instead of being blamed and ostracized for their vulnerability.

Creating and preserving an environment in which the rights of PLWHA are respected and

[59] Lawyers Collective, presentation made to State Human Rights Commission at Mumbai Jan Sunwai on 23rd November 2004

protected will allow voluntary testing and diagnosis instead of driving the epidemic underground as is the result of the traditional public health approach of isolation and contact tracing. Diagnostic tests are presently beyond the reach of the common person (ranging any where between Rs 500 in the public sector to Rs 1400 in the private sector). The costs of these tests in addition to treatment costs push HIV off the priority list for people who are more concerned about feeding the family.

Patents and the Impact on HIV

Essential drugs in managing HIV/AIDS patients are :

1. Anti-infective agents to treat or prevent opportunistic infections (as tuberculosis, etc)
2. Palliative drugs to relieve pain, physical and mental discomfort
3. Anti-retrovirals (ARVs) to limit the damage that HIV does to the immune system and to prevent mother-to-child transmission

Anti retroviral drugs are very expensive because of patent regimes, which mean that the original producer of the drug has complete rights over the production and sale of the drug. Even if developing countries can produce the drug indigenously, they have to respect the patents, thereby driving costs.

Huge disparities in prices for the same product are being observed on the world-wide market. Generics cut costs dramatically – this explains why it costs the Brazilian public health sector the same amount to treat 1000 PLWHA as it does the Thai government to treat 350 (looking at drug costs only). On the other hand, even drugs of the same company are being sold at very different prices in different countries. Pfizer's Diflucan costs nearly 49% less in Thailand than in Guatemala. MSF has joined a UNICEF/UNAIDS/WHO/EDM initiative to create a database with relevant information for drug procurement to improve access to HIV/AIDS related drugs.They have recently updated the "HIV/AIDS Medicine Pricing Report" which includes price information on various drugs for different countries. Governments, donors, NGOs, PLWHA and other stakeholders have to negotiate "best prices" when purchasing AIDS related drugs.

Various legal mechanisms that have been used to reduce costs are:

- Use of generics
- Price studies
- Differential pricing (so called tiered pricing) for developing countries: some major pharmaceutical companies (Glaxo Wellcome, Merck, Boehringer-Ingelheim,Hoffmann- La Roche and Bristol: Accelerating Access programme) have recently offered price cuts of up to 85% (which leaves their drugs still more expensive than generic drugs)
- International procurement (e.g. mass bulk procurement by WHO,UNAIDS,IDA etc)
- Technology transfer (eg Brazil offers technology transfer for South South cooperation)

A detailed discussion on the importance of patents, TRIPS/ WTO regulations and the benefits of generics is found in this book, in the chapter on Access to Essential Drugs, by Srinivasan.

Summing Up

In this chapter the authors have attempted to describe the present scenario of communicable diseases in India with special emphasis on the way we reached where we are and what are our problems now. We have invoked the socio-ecological model and systems theory to show that such complex issues as health and disease cannot be adequately analyzed using simplistic and linear models of cause and effect. One has to recognize the multiple dimensions of health and disease and the multiple levels of

influences that can affect the incidence and prevalence of disease.

Among the recurring themes in the chapter are:

- *Problems with the 'vertical program' as an implementation strategy:* Not only does it see the problem in isolation from other diseases, but also leads to a neglect of the general health system. This invariably results in a fragmented approach and a very costly and unsustainable program.
- *The importance of the general health system:* The general health care system, specifically the public health system, is crucial to the proper functioning of any program. Not only does it respond to the 'suffering' of individuals, but it is the only answer to sustainability.
- *The importance of involving the community:* While the experts may have knowledge regarding the technology and its effects it is the people who re-interpret this technology to make it relevant, appropriate and affordable. Examples from all over have shown that without complete participation of the community one cannot have a sustainable and effective system.

We have tried to trace the development of the Government of India's programs to control communicable diseases and to also provide the historical context of the development of these programs. While the Alma Ata declaration was signed in 1978, the foundation and spirit of the Primary Health Care movement (if we could call it that) were clearly visible in the health planning documents of India even before independence. Both the Sokhey committee and the Bhore committee enunciated the principles of 'comprehensive preventive and curative services'. Thus while the Alma Ata declaration certainly gave a boost to the concept and a clear goal to work toward, the blue print for such a health care system may be obtained (at least in India) much earlier.

While we have not covered all the different disease control programs we have concentrated on a few to highlight the main themes of the various national disease control programs. While the analysis may seem somewhat critical, one cannot deny the remarkable strides forward taken by India as a whole and by the health system in particular. And more than anyone the credit should go to those unsung heroes / heroines and foot soldiers of the health care system – the ANMs, the multipurpose workers, the anganwadi and balwadi workers and various other staff including the doctors in various primary health centres and district hospitals. However as it is said "those who do not learn from history and condemned to repeat it", it is crucial to look back and analyse the functioning of each program so that one can understand and get out of the present crisis in health care and health. This crisis being characterised by growing and persisting inequities among rural / urban and caste / class wise groupings and the poor health of women as a whole and the increasing lack of access and decreasing food security etc thanks to the effects of liberalisation, privatisation and globalisation today.

The theme broadly has been the betrayal of the dream of Primary Health Care. While in the case of our efforts against malaria, our programs have paralleled the development and thinking that was going on internationally, the TB program was one that was developed in India and was and still remains a model in multi disciplinary planning. While both the programs may have used different strategies the successes of both were totally dependent on the presence of or development of a high quality general health service. The fact that the government of India continued to put all effort in the implementation of the various vertical programs at the cost of the general heath care services is probably one of the key reasons

for their failure and stagnation. The HIV / AIDS program is being continuously dictated by western thought and ideas and being led by donors. The present push for free ART without paying attention to the crumbling and sometimes non-existent public health system which would be expected to deliver health care to HIV-AIDS affected persons is an example.

The Way Forward

While it is tempting to say that the way forward is to 'horizontalize' all of health care delivery, horizontalization itself without a whole series of philosophical, attitudinal and skill-based changes is of no use. The limited success of the overnight horizontalization of the leprosy program in Tamil Nadu is an example. What is required is a close integration between a greatly strengthened general public health system and special programmes addressing specific health problems, capable of reaching out to persons whose problems may suffer invisibility, stigma or discrimination. Even the general health system should have an orientation to address the needs of those who are really marginalized and destitute. The efficiency of any program should be measured based on the spread of benefits and change in various levels of disaggregated data rather than indices derived from aggregate data.

What is really required is for the government to decide to resist the temptation of succumbing to external (donor) pressure, to look instead toward the collective wisdom of Community health professionals and development workers who are in touch with the local reality. Another key principle is that of decentralization. While the introduction of Panchayati Raj is certainly a step in the right direction, the act needs to be followed up by capacity building, empowering and delegating both planning and financial powers to the panchayats and Gram Sabhas. This should be combined with giving space to Community Based Organisations in the decision making and monitoring process, to complement Panchayats which in their present form may have certain limitations in leading community initiatives, and to strengthen the effective organised intervention of community members in various aspects.

Further, the private medical sector cannot be excluded if there is to be any genuine health sector reform; ignoring the existence of the private sector will not make it go away. Considering that about 80% of out patient care is provided through private practitioners, this sector must be involved in effective notification, surveillance and following standard treatment protocols related to communicable diseases.

In keeping with the multi causal approach to problem solving, reorganization of the system will only play a part of improving the situation. Another important aspect that needs to be addressed is behaviour. Behaviour and its impact on health have been extensively addressed in interventions related to communicable diseases such as HIV/AIDS However, the fact that behaviour is not just an individual phenomenon, but is strongly influenced by the larger social and cultural milieu, needs to be taken into account before 'blaming victims' or adopting mechanical and at times humiliating approaches to modifying behaviour, of which 'Directly Observed Therapy' is one. Compared to such an approach, well conceived and appropriate people's campaigns and health awareness activities, based on a collaborative and participative approach may be more effective in influencing behaviour in a healthy direction.

This brings us to the other crucial principle is that of community or people's participation. While this has been a much used and even misused term in the last few decades, especially since Alma Ata, the peoples participation envisaged actually means getting the people involved at all levels of planning and implementation and actually listening to them to understand their point of view and respecting their values and value systems.

While these values have been reflected in various people's movements and innovative NGO and community led projects aimed at improving health and development keeping equity and justice paramount, they have best been articulated in the recently adopted Peoples Health Charter. We will end this chapter with a few quotes from the charter that call for a revitalization of the principles of Alma Ata in a radically changed milieu[60]:

Health is primarily determined by the political, economic, social and physical environment and should, along with equity and sustainable development, be a top priority in local, national and international policy making.

The participation of people and people's organizations is essential to the formulation, implementation and evaluation of all health and social policies and programs.

The principles of universal, comprehensive Primary Health Care, envisioned in the 1978 Alma Ata declaration should be the basis for formulating policies related to health. Now more than ever as equitable, participatory and intersectoral approach to health and health care is needed.

The charter:

Demands a radical transformation of the WHO, so that it responds to health challenges in a manner, which benefits the poor, avoids vertical approaches, ensures intersectoral work, involves people's organizations in the World Health Assembly, and ensures independence form corporate interest.

Demands that governments promote finance and provide comprehensive Primary Health Care as the most cost effective was of addressing health problems and organising public health services so as to ensure free and universal access.

[60] People's Charter for Health 2000. Gonomudran Bangladesh

New Initiatives in the Immunization Programme

Anant Phadke

During the last 10 years, two new initiatives have emerged related to the Expanded Programme of Immunization (EPI). The Polio Eradication Programme was launched in 1995. The Universal Hepatitis-B vaccination has been launched from 2003 in selected districts as a pilot programme and is likely to be expanded thought the nation in a couple of years. Though both the programmes have been rigorously pushed by certain vested interests and have the enthusiastic sanction of the Indian Academy of Pediatrics, there are serious questions about both if we scientifically, objectively assess the Public Health importance of these new vaccination drives.

The Polio Eradication Programme

The Polio Eradication Initiative in India was launched in 1995, as part of the Global Polio Eradication Initiative (GPEI). It aimed at eradication by the year 2000. The target is now postponed to 2004-07, but this aim is unlikely to be achieved. It is time to take a review of this objective of eradication of polio by vaccination. In a memorandum submitted to the WHO on 7th April 04, seventeen public health experts in India have argued that "the goal of GPEI was flawed from the time of its conception and is unlikely to achieve its stated objectives this year or in the coming years."

There are a number of critical observations and arguments, which question the wisdom of the Polio eradication strategy –

1. Earlier, all limb-lameness was assumed to be due to the polioviruses. Data from the Americas, from Vietnam and now even from India (Mumbai, U.P) clearly show that majority of patients of Acute Flaccid Paralysis (AFP) are not due to the polio virus but due to Non Polio Entero-Viruses (NPEV).[1] This fact substantially changes the cost-efficacy estimation of polio-vaccination.
2. Majority of the Sabin viruses administered to children revert to the virulent form within a month![2,3] (There was no question of such reversion in case of the small pox vaccine, the eradication initiative that is often used as an example and precedent). Hence OPV cannot be stopped even if the incidence of paralytic polio due to the wild virus is reduced to zero. Dr. J. John, the architect of the current eradication strategy in India has admitted, "Among strains of Polio-viruses in the environment, 69% of type I, 92% of type 2, and 55% of type 3 viruses were found to be neuro-virulent revertants. There is clearly a signal for the hidden risk inherent in the continued use of OPV."[4] It has also been admitted that " Until recently, awareness of vaccine-associated paralytic poliomyelitis (VAPP) has been poor and quantitative risk analysis scanty but it is now well known that the continued use of OPV perpetuates the risk of VAPP. Discontinuation or declining immunization coverage of OPV will increase the risk of emergence of circulating vaccine-derived

[1]Kapoor A, Ayyagari A, Dhole TN. Non-polio enteroviruses in acute flaccid paralysis. *Indian Journal of Pediatrics 2001;* 68:927-929.

[2]Dunn G, Begg NT, Cammack N, *et al.* Virus excretion and mutation by infants following primary vaccination with live oral polio vaccine from two sources. J Med Virol 1990; 32:92-5.

[3]Abraham R, Minor P, Dunn G, *et al.* Shedding of virulent poliovirus revertants during immunization with oral poliovirus vaccine after prior immunization with inactivated polio vaccine. *J Infect Dis 1993;*168:1105-9.

[4] John TJ. Polio eradication in India: what is the future? *Indian Pediatr* 2003;40:455-62.

polioviruses (cVDPV) that re-acquire wild virus-like properties and may cause outbreaks of polio. To eliminate the risk of cVDPV, either very high immunization coverage must be maintained as long as OPV is in use, or IPV should replace OPV. While progress is made towards eradication, VAPP is now becoming more frequent than polio attributable to wild poliovirus infection."[5] During 1998 to 2001 out of 5495 cases of poliomyelitis 1770 were VAPP cases![6]. In view of the problem of VAPP, J. John has suggested a shift to Injectable Polio Vaccine (IPV). The cost of IPV is today Rs.450/- per dose[7], i.e. about 100 times that of OPV**.** Even if it is brought down drastically when millions of doses are bought in bulk, the total cost would be too much to bear for a country like India.

3. Smallpox virus was eradicated from human environment through vaccination. Can this be done for polio virus? Elimination of the wild virus would require that every child in the developing world should receive the Sabin vaccine. But given the social barriers to access of various types and to social conflict situations in some part of the country or the other, is this possible ? Even if 100% coverage is achieved, uptake rate may not be 100%. Hence even if for a few years, there may not be a case of paralytic polio, wild virus may continue to circulate amongst this pool of 'covered but un-immunized' population through sub-clinical infections. In the above quoted paper J. John has also pointed out "The resultant population mix of non-immune children and recently immunized vaccine virus-shedding children offered the milieu for a revertant virus to spread silently and cause outbreaks, as seen in Egypt and Haiti." Surveillance based on follow-up of AFP cases cannot monitor this silent spread. Has sewage been monitored for presence of the polio viruses? Has poliovirus been eliminated from the sewage of those developing countries who have been giving only IPV without radically improving the sanitary conditions? In absence of improvement in sanitation, can polio-virus be eradicated from human environment? Without a definitive answer to these questions, we cannot claim that the Polio eradication strategy has a sound public health basis.
4. There are reports that immuno-compromised individuals continue to excrete vaccine derived revertant neurotropic viruses for years.[8,9,10] With the HIV epidemic, will not this be a significant phenomenon?
5. There have been reports of reduced coverage for other vaccines in the EPI,

---

[5] John TJ. Polio eradication: End-stage challenges, vaccine-associated paralytic poliomyelitis. *Bull World Health Organ* 2004;82

[6] Mittal SK, Joseph Methew. Vaccine Associated Paralytic Poliomyelitis, *Indian Journal of Pediatrics* 2003; 70: 573- 577.

[7] Together We Make India Polio Free, *Unicef*, 2000, page 7.

[8] Kew OM, Sutter RW, Nottay BK, McDonough MJ, Prevots DR, Quick L, *et al.* Prolonged replication of a type 1 vaccine-derived poliovirus in an immunodeficient patient. *J Clin Microbiol* 1998; 36:2893-9.

[9] Walter R, Maureen EB. The biological principles of poliovirus eradication. *J Infect Dis* 1997;175**:**286-92.

[10] World Health Organization. Primary immunodeficiency diseases: Report of a WHO scientific group. *Clin Exp Immunol* 1997;109 (suppl 1):1-28.

due to the additional work of the pulse strategy. [11,12,13]

6. Epidemiology tells us that though for aerogenous infections vaccines have a very important role in control of diseases, for diseases, which spread via faeco-oral route, the main measure has to be public sanitation and personal hygiene. In absence of these basic measures, to attempt to eradicate any enteric infection through mere vaccination is highly questionable. In the current 'campaign for eradication of Polio' there is no thought of allocating more funds for sanitation! Improved water supply and sewage management would also help to reduce lakhs of diarrhoeal deaths, hepatitis A, E, enteric fever and other gastrointestinal infections along with polio.
7. In the current year (2004), in India, Rs 1100 crore will be spent for the eradication of polio; more than double the amount spent last year! This is many times more than the expense on all the other vaccines in the EPI put together!

Despite the basic flaws in this programme, why have the Indian policy makers taken it up? Apart from the highly technocentric paradigm of such vertical programmes, the push by the funders also seems to be a major factor. Jeremy Shiffman has compared disease burden in the developing countries with the annual donations by donor agencies measured in terms of dollars per DALY (Disability Adjusted Life Years). He found that during 1996-2001, tuberculosis and malaria which contributed 9.10%, 14.3% respectively to the total burden among 20 diseases, received annual donation 3.82, 6.64 dollars respectively per DALY for their control programmes. Whereas polio received 1998 dollars per DALY though it contributed only 0.04% to this disease burden. There is thus mind bogglingly excessive funding to the polio-eradication programme compared to the morbidity load it has generated.[14]

The sensible thing would be to abandon eradication of polio as the immediate objective and aim at polio control as has been done in the past for four other diseases for which eradication programme was launched initially. (hookworm, yellow fever, malaria and yaws). Along with measures for improvement in water supply and sanitation, OPV programme be continued in developing countries till the cost of IPV is brought down to that of OPV (i.e. if it is brought down to one hundredth of the current cost!)

Universal Hepatitis-B Vaccination

The Universal Hepatitis-B vaccination programme aims at reducing, eventually eliminating the morbidities and deaths due to sequelae of hepatitis-B infection. But this strategy is highly questionable on grounds of its cost implications, its effectiveness as well as due to its unfavourable cost-efficacy.

1. Currently the Hepatitis-B vaccine **cost** is Rs. 150 /- per child, for three doses. For mass vaccination, we will assume that the vaccine would be available at a lower price, @ Rs. 50 per child. Even then it will be almost equal to the combined cost of the other 5 vaccines in the EPI! The annual cost of the vaccine for the 250 million newborns alone would be Rs. 1250 million (@ Rs. 50 per child). This equals the national budget for TB control. (TB kills 5 lakh adults annually and is the number one

[11] Lessons learnt from pulse polio immunisation programme. AIIMS-India CLEN PPI Program Evaluation 1997-98 Team. *J Indian Med Assoc* 2000;98**:**18-21.
[12] Mathew JL, Gera T, Mittal SK. Eradication of poliomyelitis in India—future perspectives. *Pediatr Today* 2000;3**:**647-60.
[13] Kishore J, Pagare D, Malhotra R, Singh MM. Qualitative study of wild polio cases in high risk districts of Uttar Pradesh, India. *Natl Med J India* 2003;16:131-4.
[14] Shiffman Jeremy. Donor funding priorities for communicable disease control in the developing world. Paper presented during the 11th Canadian Conference on International Health, 25th to 27th October 2004; Ottawa, Canada.

killer of adults in India). Is it justified to spend on a priority basis so much funds on one single vaccination on this low prevalence disease?

2. Unlike in the West, **vertical transmission** of Hepatitis B from Hepatitis-B positive mothers to their newborns, is the most important mode of it's spread in India. Prevention of this vertical transmission requires that the newborns be given the first dose of the vaccine during first 12 hours of birth. The WHO, the American Academy of Pediatrics have recommended that the first dose of HBV must be given as early as possible and in any case not later than 48 hours after birth.[15] However, in India, since 77% births take place at home, this condition cannot be met in majority of the cases. The first dose of Hep-B vaccine would be given in the Indian National Immunization Programme at the earliest, with the BCG vaccination visit and generally with the DPT-vaccination visit at 6 weeks after birth (In many places BCG vaccine is also given during the DPT vaccination visit!). Inability to give it in the first 12 hours after birth means that at least in 77% of births, the newborns will not be protected from vertical transmission. It is well known that newborns that get infection at birth are very likely to become hep-B carriers.[16] This most vulnerable group is precisely the one that would remain uncovered by Universal Vaccination in India.

   To put things in perspective, even if all newborns are successfully protected by vaccination in infancy, it will still take the Universal Vaccination Programme 40 years to stop vertical transmission. To stop **horizontal transmission** amongst above 40-year population also, it will take further 25 years of Universal Vaccination, because average life- expectancy at birth in India is 65 years and it will take these many years before every Indian would be protected by this vaccination programme for infants. During these coming 65 years, the life expectancy would further increase, with the resultant consequences for this programme.
3. The WHO has recommended universal hep-B-vaccination for countries with hep-B ***carrier rate*** of more than 2%.[17] However, in India, the hep-B carrier rate is less than 2 %. The oft-quoted estimate of 4.7% is based on the mistake of equating hepatitis-B positivity-rate with carrier-rate and also involves a simple arithmetical error![18] Selective Vaccination is in use in low prevalence countries like Japan, U.K. Netherlands. Thus on the grounds of low carrier rate alone, it is clear that the Universal Strategy is not applicable in India. Final decision should depend upon our health-care priorities, funds required and comparative cost-efficacy of different options.
4. The Indian Academy of Pediatrics has recommended Universal Hepatitis B Vaccination of newborns in India, without estimating in any detail the burden of morbidity and mortality due to HB-disease, and without estimating its **cost-efficacy in terms of cost per life years saved** due to HB-Vaccination. We (Phadke and Kale) have estimated in a somewhat detailed and rigorous manner, the comparative

[15] Mittal SK and Nirmal Kumar. Optimizing Hepatitits-B Vaccine use in India, *Pediatrics Today;* July-August 1998, 9-41

[16] Harrison's Principles of Internal Medicine, 14th edition, Eds. Fauci, Braunwald, Isslebacher, et al.McGraw-Hill, 1998, P 1685.

[17] Ghendon Y. WHO Strategy for the global diminution of new cases of hepatitis B, *Vaccine 1990,* 8: S 129-133

[18] Phadke Anant, Kale Ashok. *HBV Carrier Rate in India (letter to the editor), Indian Pediatrics 2002;* 39: 787.

cost-efficacy of Hepatitis B vaccination in India. Available Indian data on prevalence of HBsAg positivity rates in different age groups and from extensive Western studies on sequelae of HB-infection have been used. Number of persons from hypothetical cohorts of 1 million each for age-groups, <1, 1 to<5, 5 to<15, 15 to<35, 35 to< 65, who would suffer from and die due the five diseases caused by HBV-infection – acute hepatitis, chronic persistent hepatitis, chronic active hepatitis, cirrhosis, hepatocellular carcinoma, was estimated. Based on this, cost-efficacy of HB vaccination was calculated and compared with that of measles vaccination. It was found that the average lifetime risk of dying due to the sequelae of HBV-infection in the normal population and HBV-carriers is very low- 0.053 % and 1.39% respectively. The cost-efficacy of hep-B vaccination ranged from Rs. 440 to Rs.6433 per life year saved for different age groups, with a weighted average of Rs.2713. For infants, the cost efficacy of Hepatitis-B vaccination was Rs. 558 (12.4 US dollars) as compared to Rs. 43 (0.96 US$) per life year saved in case of measles vaccination.[19] By using a different method (Markov-model), Aggarwal, Ghoshal, and Naik,[20] have arrived at a marginal cost-efficacy of US $16.27 per life year gained, a value similar to our estimation.

These four considerations taken together put a big question mark on the Universal Hepatitis B Vaccination strategy.

One can conclude that, the New Initiatives in the Immunization Programme are highly questionable, on the grounds of Public Health and hence need to be reassessed by having a scientific public debate on it.

[19] Mimeo, revised version of *-Phadke Anant, Kale Ashok, Some Critical Issues in the Epidemiology of Hepatitis – B in India. Indian Journal of Gastroenterology, 2000;* 19 *(Suppl. 3): C76-C77.)*

[20] Aggarwal Rakesh, Ghoshal Uday, Naik Subhash. Assessment of cost-effectiveness of universal hepatitis B immunization in a low-income country with intermediate endemicity using a Markov model, *Journal of Hepatology; 2003;* 38:205-222.

Community Health Worker Programs and The Public Health System

T. Sundararaman

Introduction

Community health worker programmes have repeatedly been tried by the government – and have repeatedly failed. The surprise is not any longer in its failure. The surprise is how despite such a poor track record they always do bounce back – in one form or another. In some form or other some member of the local community at some stage has always had to be chosen to provide some health related inputs.

It is time to pose different questions of the Community Health Worker (CHW) programmes. The first of these that we would like to ask is – why do they keep being resurrected? What are the compulsions that bring them back? And why is it that while on the one hand a very large number of NGOs have shown considerable success with such programmes the government has not been able to achieve positive results? From the answers to this question rises the possibility of building an approach which may be promoted by advocacy when the programme is revived again – at the state or central level.

There is a simple explanation for their bouncing back – in the present day Indian context, such a programme is needed, even essential, to any major effort at public health. The set of functions that needed to be performed at the village and family level – have almost all been designated as functions of the auxiliary-nurse- midwife (ANM). Yet even a little introspection would show that it is impossible for her to complete all these tasks. Some of the tasks are mutually exclusive and some impractical. Thus if one has to go to different habitations for immunisation and house visits, then one is not available in every hamlet for providing presumptive malaria treatment on the first day of fever or even available at the sub-centre to deliver babies. Moreover, many of these activities involve education and behaviour change where only one persons input is inadequate. None of the above activities are such that one can just take it out of the list to limit it. They are all essential to achieve basic improvements in health care. It follows that we need more human power at that level to implement it. Indeed, there is evidence to show that the ANM copes with much of her work by making her own informal local arrangements with persons whom she can get to volunteer for this purpose.

The ANMs workload

1. **Immunisation**
2. **Ante-natal care**
3. **Conduct of home delivery and delivery at subcenter.**
4. **Post-natal care**
5. **Advise on neonatal care**
6. **Vitamin A and Iron-folic acid distribution**
7. **Family planning advice and services including provision of Oral Pills, condoms and IUD.**
8. **Health education and counselling on child and maternal nutrition;**
9. **Early detection and referral of pneumonia and prompt and proper management of diarrhoea, with health education to mothers for the same also.**
10. **Fever survey and presumptive treatment of fever with preparation of peripheral smears for blood smear examination for parasites needs to be done. Mechanism of collecting reports in time with adequate treatment for smear positive cases.**
11. **Identification of possible cases of tuberculosis and collection of sputum.**

12. **Identification of possible cases of leprosy.**
13. **Treatment of reproductive tract infections and counselling on family life.**
14. **Identification of cases of curable blindness including cataract.**
15. **Identification of people with disability with advice on available services.**
16. **Registration of pregnancies, marriages, births, deaths,**
17. **Education of adolescent girls**
18. **School health programmes**
19. **Village women's meetings on health.**
20. **Attending some panchayat meetings on health.**
21. **First contact curative care and replenishment of drug stocks in hamlets.**
22. **Advise on safe drinking water and sanitation**

Problems of Geography

The problem of outreach is further compounded in most states by the problems imposed by the social geography of the state. For example the state of Chhattisgarh has 54000 hamlets and only 4000 female multipurpose workers. A population of 3500 is typically spread out over 7 to 15 hamlets, notionally constituted into 2 or 3 villages. (The distinction between villages in a tribal area is not sharp). These 7 to 15 hamlets may be spread over a wide area of over 10 km – or even more. Roads between them are often non-existent. Roads to the hamlets are often there but transport services are frequently inadequate. Add to these natural obstacles, rivers and forests that cut off villages during the monsoons for a whole three months. We can see that the task of visiting all the hamlets even once a month is daunting as it is usually possible to visit a maximum of only one or two hamlets per day. And if we require the ANM to visit the hamlet when people are available, when they are not out at work - how can she get back to headquarters the same night? And how many nights in a month is it possible for her to stay away from her home?

In practice therefore, though the list of tasks, is long and impressive many tasks remain only on paper. Most ANMs are able to just about manage immunisation and some degree of family planning services and that too because they informally *always* request volunteers like depot holders or link workers or just their personal contacts to help out on some of the other tasks. Necessarily therefore some volunteer at the habitation level is needed to act as a link between the ANM and the population for service delivery as well as to take on a number of functions currently assigned to her.

Limitations in Expanding the MPW Force

One possible solution is to increase the number of female multipurpose workers (MPWF). Could we afford (at current salary scales) one ANM per thousand population? That would mean raising the workforce five times. Even then outreach to remote areas would remain.

Experiences from many places repeatedly reiterate the advantages of health education being accomplished by a member of the community for whom the messages are intended. Messages received from a woman of the village have the same language, the same idiom, are adapted to their culture much better than would be the case for a person appointed from outside. This again is much more so in states where we have so many different tribal groups and dialects. Moreover, a woman of the same group would have an instinctive understanding of what women already know and what they do not and why certain beliefs are held or why certain messages are not understood. A local CHW can address these problems much better than a person coming in from outside. The Community health worker will be needed in every village as the major carrier of health education- at least till such time as general education has universalised and reached an adequate quality and where adequate health education is easily accessed by the general population from public sources. (The current jingles and hoardings that market certain key messages selected by the health

establishment are not to be confused with a health education programme).

Pioneers in Community Health Worker Programmes

Community Health Programmes became well-known in voluntary organisations and NGO sectors in the mid 1970s. Since then, many organisations have replicated different forms of community health work across the world. India too has a rich experience of such programmes. One aspect that was established beyond any reasonable doubt by the pioneers of community health action was that substantial improvements in health status can be brought about by a team of well trained and guided community health workers despite their having low literacy skills and educational levels. Let us briefly look at some of these pioneering community health worker programmes in India.

Of the above list the first six are important because they have generated substantial data to show improvements in health status and much of this has been published in

Some of the Major Pioneer Programmes that have Defined this Community Health Worker Approach

	Venue/Name of the Project	Organisation and key resource person associated with it	Approx. project size
1.	Comprehensive Rural Health Programme- Jamkhed, Aurangabad district , Maharashtra	Dr. Mabelle and Dr.Rajnikant Arole.	100 villages
2.	Comprehensive Rural Health ProjectMandwa; Maharashtra	Dr.N H. Antia, Foundation for Research in Community Health	30 villages
3.	SEWA- Rural, Bharuch, Gujarat	Society for Education Welfare ad Action-Rural. Dr Anil and Lata Desai; Dr Mirai Chatterjee.	35,000 population
4.	RUHSA project, Vellore district, Tamilnadu	Rural Unit for Health and Social affairs- (associated with CMC Vellore) Dr DS Mukherji, Dr.Rajarathinam Abel	84 hamlets; about 1 lakh population
5.	SEARCH project, Gadchiroli, Maharashtra	SEARCH :Dr Rani Bang and Dr. Abhay Bang	
6.	KEM Rural Health Project	Extension service of King Edward Memorial Hospital Dr B J Coyaji	186,442- approx. one block
7.	Vivekananda Girijana Seva Samithi, Billi Ranga hills, Karnataka	H S Sudarshan	
8.	Comprehensive Labour welfare scheme and United Planters association of Southern India, Idukki (and Tata Tea plantations. Munnar)	Dr V Rahmathullah	2.5 lakhs- mainly tea garden workers
9	Raigarh Ambikapur Health Association	Sr. Georgina	150 villages, 2.5 lakh population

international peer reviewed journals. The other projects listed have important innovations or situations that are worth studying closely, even though they have not focussed on such data. We note that there are many other important CHW programmes like CHDP, Pachod, the Banwasi Sewa Ashram the Deendayalu project in Chittor, AWARE programme in Naydupeta of Andhra Pradesh, ACCORD programme in Gudalur. We are, however, constrained by lack of both space and data to discuss all these.

We describe below two of these path-breaking programmes and touch upon how the other programmes related to them.

Comprehensive Rural Health Project: Dr Raj Arole and Dr Mabelle Arole, Ahmednagar District – Jamkhed.

This programme is the most well known pioneer in this area. Indeed it was to influence all discussions on community health workers ever since its inception and in a modest way even the framing of the Alma Ata declaration of 1978. This programme was led by two doctors- a husband and wife pair of Dr Mabelle Arole and Dr Rajnikant Arole. Both had graduated together from medical college in 1959, they worked for three years in villages and then moved to learn higher skills in the US, working at the Cleveland Clinic and John Hopkins – two of the most renowned public health programmes before returning to India in 1970.

The Jamkhed programme started in 1970 attempting to build a programme around a health centre linked to weekly village visits by the doctors supported by ANMs, much like what was then available in the government system – one woman for 5000 population. They started with six ANMs. But over the next two years they had to change their strategy. The ANMs were to stay in a village and attend and provide services to about five villages each. However, though trained and intensely supported by the doctor couple the results were not encouraging. They were successful in curative care but had great difficulty in getting accepted as midwives or in doing preventive and promotive work. Moreover they found it difficult to stay in villages. Nor was it possible to afford an ANM in each and every village. Analysing this, the Arole's recognised that when it came to preventive and promotive messages the cultural gap between the ANMs and the village led the villagers to disregard their messages. To quote, 'the nurses are different, they dress differently. Sometimes our women do not understand their language. They use big words and strange phrases that we have never heard before. They keep aloof, and do not like to meet our women in the field. They are not able to explain things to our women and not sensitive to our beliefs.' – report of a sarpanch to Raj Arole about why a very good ANM was being ineffective stated during an evaluation session – quoted in the book "Jamkhed." The book comments that in China too similar problems had been noted. It was decided therefore to limit the ANM to a weekly visit and instead create a cadre of health workers. With the withdrawal of the ANM to the health centre as part of the medical team, they became not only more effective but more cheerful in all their functions, including support to the community health workers. They were able to play an important role in the community.

Faced with a very limited success in the ANM centred approach, largely because of her inability to reach the hamlets regularly and because of the cultural and social gap between her and the population she has to serve, they decided to start by training village level volunteers – that too women.

From the very beginning the Jamkhed strategy had been planned as a multipurpose service and as part of this, farmer's clubs were initiated in all the villages. By 1975 farmers clubs had come up in 30 villages. These clubs became the focal point of all the comprehensive health activities planned. The selection of the CHWs was also a farmer's club function.

CHWs selected were women, usually married and resident in the village. Most of them had children, but a home situation where they could be helped. Some were widowed and needed the small financial support that the programme provided. They were all selected by the farmer's clubs, which were active sensitised entities, which knew how to act in consultation with the team.

Training consisted of an initial weeklong orientation followed by periodic weekend visits and reviews. The ANMs served to play a major role in training and even senior voluntary health workers (VHWs) helped significantly. Training was participatory with a lot of group discussions and practical demonstrations. Considered cultural adaptation of messages to suit the social milieu could take place. The programme went on to plan women's development groups as well. By 1975 the programme had an impact in 30 villages. It was then decided to expand the programme and over the next five years it did expand to 175 villages.

Meanwhile in 1977 the government partly influenced by this programme and also driven by its own compulsions launched a community health volunteer programme later known as the village health guide programme. The government approached the Jamkhed team to help them conduct the programme in the entire district. This was accepted. Teams from the programme visited the villages explaining the programme, helping in selection and then later undertaking the training. Training was one week at the Jamkhed centre, one week visiting and working with one of the established VHWs and another two weeks at Jamkhed. Further, once every three months there was a training session at the centre with monthly one-day sessions at the primary health centre (PHC).

This programme however did not have the desired impact. To quote 'Voluntary health groups (VHGs) expected the same kind of support from the staff at their primary health centres as the village health workers enjoyed at Jamkhed. But the government PHC staff are not trained or even inclined to provide support or consider VHGs as learners and competent equals. The government did not make provisions for ongoing refresher training of the VHGs and did not have facilities for overnight accommodation'. To modify these problems, twelve local NGOs were selected and trained to provide this support and this helped limit the problem by providing some quality monitoring and training support. In this process women were also developed as trainers.

What were the health outcomes to be learned from Jamkhed? There is considerable data on this. The infant mortality rate (IMR) fell over four years from 176 to 60 and then a slower fall over the years to about 18 to 20 by 1992. Birth weights increased by 0.75 kg. The crude birth rate fell from 40 to less than 20 over this twenty-year period. And couple protection rates reached desirable norms. Certain areas like a marked son preference affecting gender ratios below the age of 15 had not changed – but on the whole the programmes impact was unquestionable. The impact was mainly on child health and the major strides forward were apparent in the first five-year period. Socio-economic indicators, knowledge attitudes and perceptions also showed positive changes.

Rural Unit for Health and Social Affairs (RUHSA- Vellore)

This is a creation of Christian Medical College (CMC) Vellore, one of the premier medical colleges in the country. This programme was set up in 1977 to integrate health care with socio-economic development as part of the Reorganisation of Medical Education (ROME) effort. The structure of the programme had five family care volunteers each catering to about 200 families organised under a full time paid community organiser for every 1000 families. This is called a Peripheral Service Unit (PSU) and was visited by a mobile medical team once a week. There were 16 such PSUs

and four such mobile teams operating out of two central service units. These two central service units also acted as the first referral points of the programme. The family volunteers who were the main workforce received continuous training and support from the community organisers.

The strategy to link health and development was known as the TEAM approach – training, education, agriculture and animal husbandry and medicine. The target groups were women and children, educated unemployed youth and socio-economically weaker sections of the community. The programme therefore involved setting up dairy and sheep cooperatives and a weaver's cooperative and a chicken broiler programme. Kitchen gardens and water management was also integrated. Securing bank financing for such initiatives was also a major thrust in the effort.

At the level of organisation village advisory committees, youth clubs, women's groups and young farmers clubs were developed. Adult education and women's organisations became thrust programmes. Some of the impressive results in the health section was the work focus on child malnutrition. Severe malnutrition in this area fell from 26 per cent in 1978 to less than 2.5 per cent in 1988. The birth rate fell form 36 to 23.3 per cent, but this was parallel with the rest of the state. The decline in infant mortality was significant, it fell from 116 to 50.8, which was better than the state figure of 93.0 at that juncture. Service indicators including inpatient and outpatient figures in the referral centres, pregnancy registration and immunisation coverage all improved remarkably. Similar to other models in this field, the first five years showed the steepest improvement after which the slope flattens but continues to improve over the next five years. About 66 to 80 per cent of the improvement was in the first five years.

Some Other Innovations

SEARCH Gadchiroli has also generated rich figures of improvement in infant mortality. One notable addition is that the Gadchiroli group addressed the problem of neonatal mortality too in some detail. They established that with the right training inputs and two visits in the post-partum period even neo natal mortality could decline with effective community health worker participation. The importance of demonstrating this was important, since in many other CHW programmes all elements of infant mortality and child mortality showed improvement *except* for neonatal mortality.

SEWA-Rural in Gujarat broke fresh ground in working with the government system and building up frameworks in which the existing ANM structure and the CHW structure created could synergise.

The RAHA (Raigarh and Ambikapur programme) needs to be noted not only because of the difficulty of terrain but also because in such terrain where both government and private sector penetration was minimal a health insurance system that generated substantial funds and participation from the community was set up. This was long before health insurance became a central feature of health care debates and it was more motivated by the internal necessities of providing health care outreach systematically rather than from any pressure to establish a model. The funds generated from such peoples contributions were only a small part of the over all expenditure but it did ensure a better quality of care to all its participants.

NGO Experience In Community Health – An Overview

The above examples illustrate three types of motives for initiating community health worker programmes. One is a set of doctors; often a doctor couple who wish to put their

skills to use in the service of the poor. Another is institutions that are trying to establish a model that involves scientific demonstration of the validity of the approach and the development of tools to replicate them. Yet another variety was the experiment with plantation workers whose prime motivation is cost effective quality care for the workers. Whatever the motivation, whatever the starting points, whatever the routes eventually taken, there seems to be a residuum of absolute non-negotiables in the success of any CHW programme.

These Non-negotiable Elements for Success could be Enumerated as follows:

1. A good quality of referral linkages, usually in the form of a ten to 30 bedded rural hospital, where higher degrees of illness are handled adequately.
2. Duration of project for at least five to ten years.
3. High quality leadership providing active support and training throughout the programme – with no end point at all to this process of support and training.
4. Women as healthcare providers, especially at the community level.

The limitations of the above programmes are also clear. They cover only a minuscule part of the population and beyond establishing a particular approach and tools to implement it, they cannot have much impact on the over all health situation. Besides this, none of them recover more than a fraction of the costs – even where this has been tried – and therefore are dependent on continued government support or external aid with all the limitations and insecurities of such funding. Sustainability of the project depends on how long such financial support is forthcoming though some of the health gains, (especially secondary) that contribute to increased knowledge and better practices are irreversible.

Problems in Large Scale Replication by the Government

The major government led programmes are Community Health Volunteer (1978), the Village Health Guide (1984) the Jan Swasthya Rakshak (1987), the Janswasthya Rakshak (1995) and the Drug Depot Holder, and the Malaria Link Worker.

Government Programmes

Important government run CHW programmes in contrast to NGO led CHW programmes have had the following problems:

a. Almost all the programmes have selected mainly or only male health workers.
b. Selection has either been by the local government functionary whose understanding of the programme varies, or it is left to the elected panchayat or the dominant section of the village. In both cases patronage has corrupted the choice.
c. In almost all cases there has been very poor quality of support after the training period is over and there is no continued plan of training.
d. There is minimal or non-existent referral back up as the health system is dysfunctional.
e. Curative care has been over-emphasised and preventive care even if covered in the training is not practiced in the field – leading to a situation where many of the men trained as CHWs set up as under-qualified hazardous practitioners of irrational allopathic medical practice.

Why has there been this inability to integrate these five basic lessons into the government CHW programmes? One must beware of one-line answers to this question. In the process of programme design and implementation, different sections and institutions (or stakeholders if one is comfortable with the term), contend to shape the programme. Though their interests overlap,

implementation is viewed from their individual and distinctly different interests and perspective – and in the process these five lessons get filtered out. Thus to the political leadership the attraction of the scheme lies in the fact that it can be presented as a scheme for providing a livelihood to educated youth, somewhat like learning a trade. By converting the opportunity to be trained into this trade into a large-scale patronage system where panchayat leaders are involved in selection and the young beneficiaries are grateful to the government of the day it becomes a source for gaining political mileage. This is most clearly seen in the recent Jan Swasthya Rakshak scheme of Madhya Pradesh. The underlying cause is the persistence in selecting male CHWs, allowing panchayats to control selection and the emphasis on curative care. To the leaders who decide on policy – there is frustration with the failure of the public health system to deliver. To them this programme is a low cost option to arrange for some degree of health care to reach the poor together with a higher visibility and recognition for the project from the people and the government. This partly explains the insufficient investment in continued long-term training and training materials and support in building up referral systems. It goes along inadvertently with a lack of will to manage the problems of the public health system. The inability of a bureaucracy – that too a medical bureaucracy – to initiate and sustain the mobilisation processes that such a programme needs contributes its part to the misfortunes. Moreover the medical bureaucracy remains distrustful of the CHWs partly because they perceive them as competitive in rural practice. There is a misgiving that the creation and empowerment of a new force would challenge the omissions and failures of key functionaries in the current public health system. In the NGO health sector this programme represents an opportunity for it to expand its sphere which in itself is welcome – except that at the theoretical level it may be instrumental in causing the state to renege from its commitments. At the practical level government policy may well shift to merely the selection and monitoring of NGOs. In the long run in such a scenario only service delivery NGOs who can cut corners or those whose claims of performance do not match with actual activities,would survive.

Community Health Worker Programmes as Health Sector Reform

There has also been considerable divergence between different NGO organised community health programmes in their approach and relationship to the public health system. Many NGO programmes here and world wide were based on the premise that as the public health system is dysfunctional, at least in so far as reaching the poor was concerned – a more effective way of reaching the poor was necessary. No synergy with the public health system was considered – giving up the latter as a lost cause. Curiously there was often a considerable agreement on this between radical proponents of a health rights approach and those whose work was an extension of philanthropy. Often such CHW programmes had their own referral centre. Only a few amongst them sought synergy with the public health system.

In an era of globalisation and an ideologically driven retreat of the state, this lesser role for the government in health care provision proved even more attractive and public policy increasingly talked of handing over areas and programmes to the NGO sector. This was, however, not part of a planned way to increase effectiveness but merely a shift in responsibility and reneging on a more proactive government role. The cost effectiveness of the CHW programmes in particular as compared to conventional public health systems seemed to find favour with international funding agencies.

In contrast to these there is a trend in the CHW programmes since the 1990s to change the CHW programme into a movement for health rights. Early examples of this approach

are three relatively small and tentative pioneer programmes. These are the CEHAT facilitated initiatives in co;;aboration with people's movements – Adivasi Mukti Sanghatana, the Kasthakari Sangathan and the dam displaced peoples movements in south Maharashtra. There has also been the PRAYAS work in Rajasthan and the larger programme efforts through the various health activists of the peoples' science movements in the states of Tamilnadu, Bihar and Uttaranchal. The much more ambitious Mitanin programme in Chhattisgarh state that aims to cover everyone of the state's 54,000 habitations is also built on these same principles. In these programmes the community and health worker is more a health activist, someone who mobilises the community for a more effective and accountable public health system. This is supplemented by providing health education and organising the community for self help – equally important goals in themselves. This community health worker, or should we say activist, far from being independent or parallel to the public health system is an intrinsic part of it and the programme ensures that the public health system be better utilised and become more effective. This increased utilisation comes from securing community participation for health programmes which not only involves increasing knowledge of government health programmes and facilitation to its employees but actually redesigning these programmes to include participation by the community. Local area planning in health, involving the panchayats in the process, is one of the interim outcomes of the programme and is a major tool for such restructuring to enable the health systems to be more responsive to local priorities and specific needs.

While one is convinced that by health workers providing health education inputs and first contact curative care, substantial improvements in health status can be gained, programmes like the Mitanin programme (that typically do not have their own dedicated referral centres) depend on the availability and accessibility of good quality public health services. These cannot be substituted for by community action. To pose a CHW programme without a parallel effort to restructure and strengthen public health services would be only an unethical attempt to use community health worker programmes to transfer the blame of ill-health back on to the community. In contrast, access to such public services in an affordable way for the poor, is a basic human right and the health worker programme tries to build a consciousness and an organisation of people to lead towards this goal. In programmes like the work of CEHAT or the Tamilandu or Bihar peoples' science movements there is no formal cooperation with the government health system but this has to be secured by action from below and this cooperation being available sporadically cannot be relied on.

The health activist in her daily work and the women's health committee contribute to this goal of strengthening public health systems by organising and empowering women and by sensitising panchayats to health care needs and prevalent health services. Her stubborn facilitation of village level services of the government employees is a more effective and Gandhian way of ensuring accountability in a hardened system, than mere complaints and protests. However activities like Jan Sunwai and on special issues even agitational action have been very central to effective programmes as seen in places like Sendwa and Madurai.

When the government constructs and participates in such a CHW programme and even leads it as in the Mitanin programme of the state of Chhattisgarh it is a recognition that civil society action and community empowerment are central to the improvement of public health systems. It illustrates that such action is desirable and should be encouraged. Most state governments are far from having recognised this dimension and even in Chhattisgarh the arrangement is fragile and easily reversible. That is one reason why the campaign for a right to health care must make a health activist a major peg of its

campaign in every village.

Once such a perspective is in place it is easy to ensure participation of women as health workers. It is also possible to posit a continued training and support mechanism to facilitate the health workers action and conceivably insist and move in the direction of health sector reform.

One index of such recognition is the forging of a stable state cum civil society partnership at the policy and the implementation levels. This would provide leadership to the programme – thereby ensuring that the highly motivational quality of support systems that a CHW needs are put in place – instead of passively abandoning the programme to the health/medical bureaucracy. The Mitanin programme rests on such a foundation, but given the nature of governance the spirit and mechanisms of partnership have to be constantly nurtured and safeguarded

Linking with the Panchayats

A further role that community health workers have had to play is in their interaction with panchayats. This has always been central in government thinking ever since the 73rd and 74th constitutional amendments sought to make panchayats functional bodies. Almost all community health worker programmes have required selection or at least endorsement by the panchayats. The effort has been to use this as a link with the elected representatives and as an effective mechanism for panchayats in the health arena. Success may have been limited, but as long as we concede that local bodies have a role in health care services, we would need to search for a method to build such capabilities and systems as would help them exercise this role. If we have not found it yet, we certainly need to find it in the future.

Conclusion

In the current phase of the Community Health Worker Programme – there is no clear pattern that has emerged as dominant.

We do have a large and increasing number of programmes, which are NGO run and parallel to the state with few linkages between the two, where the NGOs main role may be stated as service delivery. We do, however, see a growing belief and support for the approach that replication of NGO programmes is the best way forward – even to the extent of contracting out the whole states health systems to not just CHW programmes but even PHCs and sub-centers to NGOs.

We also have programmes where the government would consider NGOs as players with no additional role and the government with relatively low investment runs the programme with assistance from the panchayats. These are often fuelled by an understanding that the main gap in service delivery is people's lack of awareness and lack of willingness to cooperate. This premise is subsequently reinforced by the failure of the programme. In such a situation responsibility of not only CHW programme failure but also that of the entire public health system gets shifted back to the people.

Yet another approach is to push for strengthening public health systems from above through health advocacy and policy level partnerships between government and civil society, while simultaneously building up a grassroots level pressure for improvement of health systems through an appropriately designed CHW programme. The disadvantage of such partnerships is that the problem of building and sustaining them is so difficult that setbacks can easily occur. The advantage of this approach to strengthen the health system is that it is able to engage in a dialogue and dispel the different illusions and myths that have been created to justify the current state of affairs. It might well provide a considerable degree of relief to people in their suffering, strengthening their ability to cope with poverty and its consequences even while they move towards gaining more of the knowledge, the skills, the organisation and the optimism that is needed to promote social change.

The Way the Wind Blows: Population Policies in India

Mohan Rao

Introduction

India was one of the first countries in the world to have an official family planning programme and policy. Over the years, the population issue came to dominate health concerns, even as the programme lurched from one approach to another. Each programme twist, often relying on new contraceptive technology, appeared to work for a while before running aground. Thus the programme moved from the extension education approach, to the IUCD approach, to the vasectomy camp approach, to placing reliance on female sterilisation. Towards the end of the 1980s, it was increasingly being realised, albeit grudgingly, that the colossal family planning programme in India, arguably one of the largest public health initiatives in the world, had been far from successful. Partly as a result of this realisation, partly as a result of pressures generated by women's groups and health groups calling for a radical reconsideration of the programme's goals and objectives, and to some extent in preparation for the third decennial International Conference on Population and Development (ICPD) at Cairo in 1994, the Government of India initiated a search for a new direction to population policy. At the ICPD itself, a new approach to population policy was advocated in the Plan of Action, one which was not demographically driven but instead emphasised on the one hand, the empowerment of women and, on the other, an approach of reproductive health care[1]. The World Bank, whose commanding role in the health sector had reached an apogee, not perhaps coincidentally, brought out a document entitled *India's Family Welfare Programme: Towards a Reproductive and Child Health Approach* in June 1995 [2]. The Government of India, on its part, in enunciating a new Reproductive and Child Health (RCH) approach, visualised a paradigm shift in the family planning programme strategy. Indeed, reflecting this, the National Population Policy (NPP) enunciated in 2000 was premised upon the RCH approach although it entailed a neglect of Primary Health Care (PHC).[3] Thus, it was not framed in demographic terms, and was committed to a voluntary, target-free approach that abjured incentives, and in particular, disincentives.

Yet even before this approach, with all its limitations, can be given a fair chance, there is already manifest an impatience, a call for giving greater teeth to the programme, for 'showing political will'. It is in this context that in its first section this paper discusses the current policy scenario while the second part points to some fundamental arguments that have been ignored. The third section draws attention to how the focus on family planning has impinged on health sector development while the final section highlights some worrying tendencies in the wider context that policy makers need to take note of in any policy discourse.

The Current Family Welfare Policy Scenario

On the 30th of July 2003, a three-judge Bench of the Supreme Court of India upheld a Haryana Government law prohibiting a person

[1] ICPD Secretariat (1994), *Programme of Action of the International Conference on Population and Development*, New York.
[2] World Bank (1995), *India's Family Welfare Programme: Towards a Reproductive and Child Health Approach*, New Delhi.
[3] Government of India (2000), Department of Family Welfare, *National Population Policy 2000*, New Delhi.

from contesting or holding the post of a sarpanch or panch in the Panchayati Raj Institutions (PRIs) of the state if he or she had more than two children. The Bench observed that 'disqualification on the right to contest an election for having more than two living children does not contravene any fundamental right, nor does it cross the limits of reasonability. Rather, it is a disqualification conceptually devised in the national interest'[4]

Interestingly, while the Supreme Court spoke about the 'torrential increase of population', earlier the Rajasthan High Court judges, hearing a similar set of petitions, in their ruling argued: 'These provisions have been enacted by the legislature to *control the menace of population explosion*... The government is spending large sums of money propagating family planning. One of the agencies to which the project of family planning has been entrusted for implementation is the gram panchayat. The panches and sarpanches are to set the example and maintain the norm of two children. Otherwise what examples can they set before the public?'[5]

Haryana is not the only state that has a population policy with such features, which are not only at variance with the NPP but also strike at the heart of the commitments to reproductive health and rights made by the government at the ICPD. Other states, such as Andhra Pradesh, Madhya Pradesh, Rajasthan and Uttar Pradesh, also carry this policy prescription in their population policies. Between them they also advocate a mind-boggling host of incentives and disincentives: restricting schooling in government schools to two children; restricting employment in public services to those with two children; linking financial assistance to PRIs for development activities and anti-poverty programmes with performance in family planning; linking assessment of public health staff to performance in family planning and so forth.

Health and women's groups approached the National Human Rights Commission (NHRC) in 2002 with a memorandum that the two-child norm was discriminatory, anti-democratic and violative of commitments made by the Government of India in several international covenants. The NHRC issued orders to the concerned State governments, and, at a National Colloquium on the 9th and 10th of January 2003, attended by representatives of these State governments, a Declaration was issued.

This NHRC Declaration, 'notes with concern that population policies framed by some State Governments reflect in certain respects a coercive approach through use of incentives and disincentives, which in some cases are violative of human rights. This is not consistent with the spirit of the National Population Policy. The violation of human rights affects, in particular the marginalised and vulnerable sections of society, including women'[6]. The Declaration also noted: ' further that the propagation of a two-child norm and coercion or manipulation of individual fertility decisions through the use of incentives and disincentives violate the principle of voluntary informed choice and the human rights of the people, particularly the rights of the child'

However the NHRC Declaration, as much as the concerns of health groups and women's groups, apparently fell on deaf ears, as the Supreme Court ruling has come in for widespread middle-class approbation. Indeed, the Supreme Court ruling perhaps renders redundant some of the private member's bills in Parliament that have been tabled to variously increase incentives or disincentives. Two of them, one named the Population Stabilisation Bill 1999[7], and the other, the

[4] Venkatesan, J, "Two Child Norm Upheld", *The Hindu*, 31st July 2003.
[5] Sarkar, Lotika and Ramanathan, Usha (2002), "Collateral Concerns", *Seminar*, 511.
[6] National Human Rights Commission (2003), *Declaration*: National Colloquium on Population Policies, New Delhi.
[7] Lok Sabha Secretariat (1999), *The Population Stabilisation Bill, 1999*, (Dr.V.Saroja, M.P.), New Delhi.

Population Control Bill 2000 [8], for instance, moot the idea of a one-child norm along with a number of incentives and disincentives, including disqualification of persons with more than one child from contesting elections. Yet another bill, the Bachelor's Allowance Bill 2000[9], suggests incentives to those men who remain bachelors. Men, who, taking advantage of the incentives, subsequently get married, are to be fined and imprisoned. The Population Control Bill 2000 [10], also seeks to punish people who violate the small family norm with rigorous imprisonment for a term of five years and a fine, not less than Rs.50,000. The Population Control and Family Welfare Bill, 1999, proposes in addition to incentives and disincentives, the compulsory sterilisation of every married couple having two or more living children.[11] These efforts at prescribing a two-child norm seem to be found also in unlikely quarters. Incredibly, the Tamil Nadu agricultural labourer's insurance bill stipulates that labourers losing their limbs can only receive insurance compensation if they have no more than two children.

Not to be left behind, the Government of India announced its plans in April 2003 to introduce in the Lok Sabha the Constitutional (79thAmendment) Bill seeking to restrict persons with more than two children from contesting elections [12]. This Bill, introduced in the Rajya Sabha in 1992, would first have to pass the lower house. The Health Minister, speaking in the Lok Sabha, announced that should there be consensus on the Bill, the government was prepared to introduce it in the ongoing session of Parliament.

Fundamental Problems with the Coercive Family Planning Approach

The problem with these punitive approaches is both fundamental and pragmatic. Fundamentally, it represents a profound misunderstanding of the relationship between population and resources. Pragmatically, they are demographically unnecessary, and indeed counterproductive. They are also morally compromised since they violate the principle of natural justice, creating two sets of citizenship rights on the basis of fertility. Indeed such policies represent going back to the days before universal suffrage when property rights decided citizenship claims.

There is a vast amount of empirical evidence of the profoundly anti-Malthusian relationship between population and resources. Tilly, on the basis of a historical review, concluded: 'Over the long run, population growth and economic expansion generally accompany each other. Likewise economic decline and demographic contraction tend to occur together.[13] The classic by Habakkuk on population growth in eighteenth century England outlines five ways in which substantial population increase stimulated economic growth.[14] Kuznet's concluded that, other things being equal, population growth also has a positive effect on savings.[15] Indeed examining regional statistics on the growth of population and industry, the favourable economic effects of population density and population growth are 'confirmed to an embarrassing degree'.[16] In agrarian economies, Boserup's work revealed how population pressure induces technical

[8] Lok Sabha Secretariat (2000), *The Population Control Bill, 2000*, (Mr.U.V.Krishnam Raju, M.P.), New Delhi.
[9] Lok Sabha Secretariat (2000), *The Bachelors' Allowance Bill, 2000*, (Mr.Chandrakant Khaire, M.P.), New Delhi.
[10] Lok Sabha Secretariat (2000), *The Population Control Bill, 2000*, (Mr.Y.S.Vivekananda Reddy, M.P.), New Delhi.
[11] Lok Sabha Secretariat (1999), *The Population Control and Family Welfare Bill, 1999*, (Mr.Sushil Kumar Shinde, M.P.), New Delhi.
[12] "Bill to Curb Population on Anvil: Sushma", *The Hindustan Times*, 10th April 2003.
[13] Tilly, Charles (1978), "Introduction" in Charles Tilly (Ed), *Historical Studies of Changing Fertility*, Princeton University Press New Jersey.
[14] Habakkuk, John (1971), *Population Growth and Economic Development since 1750*, Leicester University Press, Leicester.
[15] Kuznets, Simon (1956), *Economic Development and Cultural Change*, Chicago University Press, Chicago.
[16] Clark, Colin (1968), *Population Growth and Land Use*, Macmillan, London.

change, increasing productivity.[17] One striking empirical truth in the history of health is that improvements in human longevity have been associated with increases in human populations. A graph of the growth of populations superimposed on that of human longevity reveals their astonishingly close association. All these lessons were lost to us in Cold War politics that brought to the fore a completely different, and alarming, understanding of the issue.

A more recent and comprehensive 1986 review sponsored by the U.S. National Academy of Sciences issued a cautiously worded statement, to the dismay of the community of doomsday demographers, noting that population growth has both positive and negative impacts and that the actual net impact cannot be determined based on existing evidence.[18]

Pragmatically, such moves are even demographically unnecessary. There is a substantial demographic transition underway in the country. The Total Fertility Rate (TFR) has declined by almost half a child in the six and half years between NFHS I and II. Replacement level, or close to replacement level fertility, has been reached in Kerala, Tamil Nadu, Karnataka, Goa, Andhra Pradesh, Himachal Pradesh, Delhi and Punjab. It is true that the TFR is high in Uttar Pradesh (U.P), Bihar, Madhya Pradesh (M.P) and Rajasthan. But even in these states it has declined between the two surveys from 4.82 to 3.99 in U.P, 4 to 3.49 in Bihar, and from 3.90 to 3.31 in M.P. Rajasthan is the only large state where the TFR has increased from 3.63 to 3.78.[19] In other words, a substantial and sustained fertility decline is underway in the country. Hastening this, however, requires investments in the social sectors – health, education, employment, food and so on – precisely measures that are being undermined by neo-liberal economic policies.

Interestingly, the NFHS-2 also reveals that the fertility rate that is currently sought, 2.13, is lower by 0.72 child (that is by 25 per cent) than the current TFR of 2.85. This is to say, if unwanted births could be reduced, the TFR would drop to the replacement level of fertility. Indeed this is acknowledged in the NPP, which therefore marks as its priority, meeting the unmet need for health and family planning services. To propose punitive measures, in this context, is thus clearly absurd.

What is also important to acknowledge is that given the age structure of the population, population growth will continue despite fall in the birth rate due to what demographers call momentum, i.e. the effect of a young age structure caused by high population growth rates in the recent past. With a large proportion of the population - almost 60 per cent - below the age of 30 years, further growth of population is inevitable, unless of course mortality increases, which cannot be the aim of policy. Population momentum contributes to as much as 69.7 per cent of current population growth.[20]

Above all, it is imperative to bear in mind that demographic transition is not merely a geographical phenomenon, but is deeply imprinted by social inequalities. Thus those sections of the population that have benefited through post-Independence development, and are thus assured incomes, child survival, social security, health and education have

---

[17] .Boserup, Ester (1981), *Population and Technological Change: A Study of Long-Term Trends*, University of Chicago Press, Chicago.

[18] Kelley, Allen and McGreevey, William Paul (1994), "Population and Development in Historical Perspective" in Robert Cassen (Ed), *Population and Development: Old Debates, New Conclusions*, ODC, Washington DC, cited in Desai, Sonalde, (1998), "Engendering Population Policy", in Krishnaraj, Maithreyi, Sudarshan, Ratna M. and Shariff, Abusaleh (Ed), *Gender, Population and Development*, OUP, Delhi.

[19] International Institute for Population Sciences, *National Family Health Survey (NFHS-2)*, Mumbai, 2000.

[20] Sen, Gita and Iyer, Aditi (2002), "Incentives and Disincentives: Necessary, Effective, Just?", *Seminar* 511.

completed their demographic transition. On the other hand, vast sections of the population – particularly the dalits, the adivasis and the Other Backward Castes (OBCs) – who have not so benefited are lagging behind in demographic transition. The NFHS for 1998-99, notes that the Infant Mortality Rate (IMR) among the schedule castes (SCs), schedule tribes (STs) and OBCs is 83, 84 and 76 respectively, compared to 62 for Others. Similarly the Under Five Mortality Rate is 119 among the SCs, 126 among the STs 103 among the OBCs compared to 82 among the Others. Not surprisingly, the NFHS also shows that the TFR is 3.15 for SCs, 3.06 for STs, 2.66 among OBCs and 3.47 among illiterate women as a whole. It is, in contrast, 1.99 among women educated beyond the tenth grade and thus more likely to be better off. Imposition of the two-child norm, and the disincentives proposed, would mean that the majority of the deprived populations would bear the brunt of the state's withdrawal of ameliorative measures, pitiably inadequate as they are. With the recent Supreme Court judgement, the majority of these populations will be debarred from their right to contest elections in PRIs through one fell stroke of the Supreme Court pen.

The Impact of Family Planning Policy on Health Sector Development

One reason for the plethora of policy initiatives that strike at the heart of commitments made at Cairo is an emerging elite group increasingly distancing itself from the concerns of the poor in the country. Another reason is the apparent sense of frustration that things do not seem to be working fast enough on the population control front. Why then has the family planning programme reached the impasse it apparently has? One fundamental reason of course is that we have failed in the provision of primary health care, partly on account of the preoccupation with controlling numbers.

Given the failure of approaches that had been hitherto followed, the GOI appointed a Working Group on Population Policy in 1980 to frame a policy framework and programme content to family planning.[21] The report of the Working Group argued that population and development are two sides of the same coin, and that if the programme has to be successful it would be necessary to focus on substantial and sustained declines in infant and child mortality, and increases in literacy, but also on increases in employment, income and nutritional status. It was also recognised that development towards these ends must particularly benefit women.

Today we find that not only has there not been an improvement in infant and child survival of the range anticipated, indeed the 1990s have witnessed stagnation in these programmes. Along with the shrinking of funds for public health and the concentration on vertical programmes, to the neglect of general health services, one singular feature that emerges is what can be termed 'the family planning approach to health sector development'. Thus it has been goals in family planning that have contoured health sector development in the country.

This is evident from the financial allocations made over the years to health and family planning. While allocations to health as a proportion of the budget, and indeed the GDP, have shown a secular decline, that towards family planning has shown a proportionate increase. Thus commencing in the First Plan with a minuscule 0.1 per cent of the budget, when health obtained 3.3 per cent, the allocations to family planning increased to 1.5 per cent in the Eighth Plan, when health obtained 1.75 per cent, and to 1.8 per cent in the Ninth while health obtained 1.1 per cent.

[21] Government of India , Planning Commission (1980), *Report of the Working Group on Population Policy*, New Delhi.

At the same time expenditure on mother and child health (MCH) has declined over the years.[22] The pursuit of targets in family planning and the priority that has been accorded to it has meant that other aspects of health care have been neglected, including the provision of MCH services. Thus it is not surprising that the NFHS -2 results show that 'mothers in India received ante-natal check ups for only 65 per cent of births during the three years preceding the survey, almost unchanged from 64 per cent in NFHS-1.'[23] Indeed considering all the components of ante natal care (ANC), the NFHS-2 notes that 'for India as a whole, mothers of only 20 per cent of births received all the components of Antenatal care' (ibid.: 305). It is not surprising too that communicable diseases and anaemia continue to be predominant causes of maternal deaths.

So overwhelming has been the influence of targets in the programme that pursuit of sterilisation goals to the neglect of health occurs even today despite an apparent official commitment to a target-free approach. Thus women and children, and indeed men, are denied essential health care even as the Public Health Care (PHC) system is geared towards meeting family planning targets.[24] Indeed even abortion services are not accessed by women seeking them primarily because they are tied to family planning, sterilisation in particular.[25]

Thus the entire PHC system has been suborned for family planning, distorting its own priorities and programmes.

Both the NPP and the Ninth Plan document recognise that there is a large need to augment and strengthen health care services and to meet the unmet needs for contraception. Indeed the Ninth Plan document also noted that one of the priorities for the programme would be to reduce high wanted fertility due to prevailing high IMR that is estimated to contribute 20 per cent to the population growth rate. The unmet need for contraception contributes another 20 per cent.[26]

Clearly then, given this realisation, policy initiatives relying on incentives and disincentives are unnecessary, if not absurd. However what is also ignored is the larger context that frames both health and population policy.

Macroeconomic Reforms and Determinants of Health and Population

A question infrequently asked is what have the macro-economic reforms of the nineties meant for the critical determinants of health? How do these in turn impinge on demographic determinants?

While the evidence is often said to be ambiguous, there is a substantial body of evidence that suggests that reforms have meant a deceleration of employment in both rural and urban areas[27], a significant casualisation of the work-force, especially involving the female labour force[28], and a sharpening of income inequalities with a

[22] Qadeer, Imrana (1998), "Reproductive Health: A Public Health Perspective", *Economic and Political Weekly*, Vol.XXX, No41.

[23] IIPS (2000), *National Family Health Survey 1998-99*, Mumbai.

[24] Menon, Shreelatha (2004), "The State of the Art Cycle Pumps", in Mohan Rao (Ed), *Reproductive Health and Women's Lives in India*, Kali for Women, New Delhi (forthcoming).

[25] van Hollen, Cecilia (2004), *Birth on the Threshold*, Kali for Women, New Delhi (forthcoming).

[26] Government of India, Planning Commission (Undated), *Ninth Five Year Plan 1997-2002*, New Delhi.

[27] Sen, Abhijit (2002), "Agriculture, Employment and Poverty: Recent Trends in Rural India", paper presented at the *International Conference on Agrarian Reforms and Rural Development in Less Developed Countries*, Kolkota. See also Radhakrishna, R.(2002), "Agricultural Growth, Employment and Poverty: A Policy Perspective", *Economic and Political Weekly*, Vol.XXXVII, No.3, 19th January.

[28] Unni, Jeemol (2001), "Gender and Informality in Labour Market in South Asia", *Economic and Political Weekly*, Vol.XXXVI, No.26.

contraction of incomes in the lower deciles of the population.[29] Thus the Economic Survey,2001-2002[30] notes that in the period 1978 to 1983, the rate of growth of population was 2.19 per cent per annum while the rate of growth of employment kept close at 2.17 per cent per annum. Between 1983 to 1988, the rate of growth of population came down to 2.14 per cent per annum, while the rate of growth of employment declined to 1.54 per cent. Between 1988 and 1993, while the rate of growth of population maintained a decline, to 2.10 per cent per annum, employment generation increased to 2.43 per cent per annum. Between 1993 and 2000, while the rate of growth of population came down further to 1.93 per cent per annum, employment generation declined to the abysmal level of 0.98 per cent per annum. While public sector employment grew at 1.52 per cent per annum between 1983-94, it showed a negative growth of –0.03 per cent between 1994-2000. Between 1991 and 2000, the growth rate in the organised private sector declined from 1.24 per cent per annum to 0.97 per cent per annum. The Economic Survey also notes ' a declining trend in the importance of self-employed category in both rural and urban areas and an overall increase in the casualisation of the women work force from 31.4 per cent in 1972-73 to 40.9 per cent in 1997'.[31] An NCAER study[32] concluded 'feminisation of wage labour is a reality across a large number of states...and is indicative of a bias against women'. Even in the so-called developed states, the employment opportunities available to women are primarily in manual wage labour. Indeed this study also notes an increasing participation of female children in wage labour.

As compared to a buffer stock norm of 17 million tonnes of food grain, India sits on a shameful and growing stock of 58 million tonnes. This indeed attests to the "success" of the reforms, the deflationary measures have indeed reduced incomes among the mass of the population, and thus led to increasing amounts of unsold food stocks, both due to increasing unemployment and decreasing real wages The Economic Survey 2001-2002 admits that increases in procurement prices have meant that market prices have at times been lower than the rates being offered at the public distribution system (PDS), leading to a low off-take. For the below poverty line (BPL) category, there has been a 61.4 per cent increase in the issue price of wheat and rice. At the same time, an estimated 350 million people are unable to meet their minimal calorie requirements. The NFHS reveals that more than a third (36 per cent) of women in India had a BMI below 18.5, indicating an extraordinarily high prevalence of hunger, and 52 per cent of women were anaemic. Almost half the children under 3 years of age (47 per cent) were underweight, and a similar percentage (46 per cent), were stunted. The proportion of children severely undernourished was 18 per cent according to weight for age and 23 per cent according to height for age. Wasting affected 16 per cent of children in this age group.[33]

Further, health expenditure has shown a secular decline as a percentage of government budgets, particularly marked in the programmes for the control of communicable diseases, while, as we noted earlier, that for family planning has shown a continuing increase. At the same time, the state has

[29] Dev, S.Mahendra (2001), "Economic Reforms, Poverty, Income Distribution and Employment", *Economic and Political Weekly*, Vol.XXXVI, No.26.
[30] Government of India (2002), Ministry of Finance, *Economic Survey 2001-2002*, New Delhi.
[31] *Ibid*, p.246.
[32] Shariff, Abusaleh (1999), *India Human Development Report: A Profile of Indian States in the 1990s*, Oxford University Press, New Delhi.
[33] International Institute for Population Sciences (2000), *National Family Health Survey (NFHS-2), 1998-99, India*, Mumbai.

provided impetus to the growth of the private sector in health care through a range of subsidies and schemes. The collapse of the public health system, a system without which of course the RCH approach cannot be implemented, has meant that increasing numbers of the poor are thrown at the door of the private medical care sector. Central Statistical Organisation (CSO) consumption estimates 2001-02 reveal that private consumption expenditure is Rupees 956 per capita[34], of which 85 per cent of this is out-of-pocket. (Rupees 812) While there is gender parity at lower levels of expenditure, higher levels of expenditure are associated with marked gender disparities. Higher levels of gender differentials in health expenditure are also evident in the 0-4 year age group. Although the richer classes spend more in absolute terms, they spend an insignificant amount in relation to their household incomes. The poorest spend substantially more proportionate to their incomes. It is thus not surprising that even as health care becomes more inaccessible, expenditure on health care is emerging as the leading cause of indebtedness.[35] At the same time, reports of starvation deaths and outbreaks of epidemics have started pouring in.[36]

The NCAER study therefore concludes, 'Cuts in public expenditure as a result of structural adjustment and privatisation of health care will adversely affect the poor and vulnerable'.[37] The conclusion then is inescapable: that reforms which bypass vast sections of the population cannot but retard demographic transition.

Not unrelated to the above features of the current scenario, a deeply disturbing phenomenon is the masculinisation of sex ratios at birth and of juvenile sex ratios. Over the twentieth century the decline of the sex ratio in the country has been secular and fairly monotonous. The 2001 Census however indicated a happy improvement in the overall survival of females as the sex ratio increased from 927 to 933. This was however accompanied by a decline in the sex ratio in the 0-6 years from 945 to 927 between 1991 and 2001. The decline was steeper in the classical region of the north and west referred to by Oldenberg as the Bermuda triangle for missing females.[38] What is more alarming is that this decline in CSR is spreading beyond this region and to communities hitherto considered immune. Indeed the masculinisation of CSR has been particularly precipitate among the SC population.[39] Accompanying this has been a marked masculinisation of the sex ratio at birth (SRB). A norm of 105 male births to 100 female births was arrived at in 1958. SRS based estimates of the SRB in 1998 shows an all-India figure of 111 males per 100 females, indicative of female Sex Selective Abortions (SSA).[40]

A large number of explanations have been proffered for the devaluation of female lives. These range from marriage and kinship patterns, to female work participation rates in wheat and rice cultivation, to laws governing inheritance of property and so on. Evidence of this was evident as early as the 1961 Census as revealed by Krishnaji, revealing a significant relationship between

---

[34] EPW Research Foundation. *National Accounts Statistics of India. 1950-51 to 2000-01*.Fourth Edition (2002)
[35] Krishnan, T.N. (1999), "Access to Health and the Burden of Treatment: An Inter-State Comparison", in Mohan Rao (Ed), *Disinvesting in Health: The World Bank Prescriptions for Health*, Sage, New Delhi.
[36] Baru, Rama V. and Sadhana, G. (2000), "Resurgence of Communicable Diseases; Gastroenteritis Epidemics in Andhra Pradesh", *Economic and Political Weekly*, Vol.XXXV, No.40.
[37] .Shariff (1999), *op cit*.p.148.
[38] Oldenberg, P. (1992), "Sex Ratio, Son Preference and Violence in India", *Economic and Political Weekly*, Vol.XXVII, No. 49.
[39] Agnihotri, S.B. (2000), *Sex Ratio Patterns in the Indian Population: A Fresh Exploration*, Sage, New Delhi.
[40] Premi, M.K.,(2001), " The Missing Girl Child", *Economic and Political Weekly*, Vol.XXXVI, No.21.

landholding and negative sex ratios.[41] Harris White[42], Judith Heyer[43] and Alice Clark[44] have all drawn attention to the imbrication of Brahminical marriage patterns among other castes, the interlocking of class and social mobility and the spread of dowry. I would suggest that along with the spread of Hindutva ideologies, state policies are also actively contributing to the reinforcement of traditional anti-female ideologies and in engendering masculinity. It is also now abundantly clear that given the ideology of son-preference in India, particularly marked in the high fertility areas of the country, a vigorous pursuit of the two- child norm is today an invitation to sex-selective female abortion.

We are thus poised at a critical turning point where population policy is concerned. On the one hand, that there are critical gaps in the health sector is accepted. There is also increasing realisation that without comprehensive primary health care, without linking health with overall development, without reinstating the state's commitment to health of the people, health improvements are bound to be chimerical. Precisely due to the political unwillingness to translate this realisation into policies we see on the other hand efforts to move towards more authoritarian approaches to achieve demographical goals, betraying the commitments made at the International Conference on Population and Development and in the National Population Policy.

[41] Krishnaji, N. (2000), "Trends in Sex Ratio: A Review", *Economic and Political Weekly*, Vol.XXXV, No.14.
[42] Harris-White, Barbara *et al* (1996), "Development, Property and Deteriorating Life Chance for Girls in India: A Preliminary Discussion with Special Reference to Tamil Nadu", paper presented at the Silver Jubilee Seminar, MIDS, Chennai.
[43] Heyer, Judith (1992), "The Role of Dowries and Daughters' Marriages in the Accumulation and Distribution of Capital in a South Indian Community", *Journal of International Development*, Vol.4, No.4.
[6] Clark, Alice W.,(1987), "Social Demography of Excess female Mortality in India", *Economic and Political Weekly*, Vol.XXII, No.17.

Mental Health in India: Review of Current Trends and Directions for Future

Aparna Joshi

WHO (1946) defines health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. Yet emotional and mental health aspects of the definition have not received much prominence over the years. Inspite of heavy social and economic costs incurred by mental illnesses and suffering, mental health continues to be a neglected issue by policy makers in India.

WHO defines mental health as (1981), "*mental health is the capacity of the individual, the group and the environment to interact with one another in ways that promote subjective well-being, the optimal development and use of mental abilities (cognitive, affective and relational), the achievement of individual and collective goals consistent with justice, and the attainment and preservation of conditions of fundamental equality"*

This definition not only keeps the individual at the center but also goes beyond in connecting it with the larger social context. It also goes beyond a reductionist biological model of mental health. While acknowledging the role of social context, it highlights the importance of justice and equality framework and it's impact on an individual's mental health. This definition has another advantage in going beyond the illness focus and therefore incorporating positive aspects of mental health.

The definition bears special relevance to Indian context given the scarcity of resources and poor living conditions, where social and eco-political-cultural factors play an important role in determining an individual's mental health.

The scope and importance of mental health has been very simply yet precisely delineated by one of the earliest Indian Psychiatrist, Govindswamy in 1948."*The field of mental health in India has three objectives. One of these has to do with mentally ill persons. For them the objective is the restoration of health. The second has to do with these people, who are mentally healthy but who may become ill if they are not protected from conditions that are conducive to mental illness, which however are not the same for every individual. The third objective has to do with the promotion of mental health with normal persons, quite apart from any question of disease or infirmity. This is positive mental health. It consists in the protection and development of all levels of human society, of secure, affectionate and satisfying human relationships and in the reduction of hostile tensions in the community".*[1]

History of Mental Health Care in India

The field of mental health in India has undergone many changes after independence. Until independence, the traditional approach towards the mentally ill had been custodial rather than therapeutic. This is reflected in the report of the Indian Medical Review (1938), which mentions presence of 17 mental hospitals in British India as an exclusive approach to mental health care[2]. The dominant force in mental health development after independence has been the policies relating to primary health care. For example

[1] Murthy R. S., 2000. Development of Mental Health Care in India 1947-1995, New Delhi, Voluntary Health Association Of India
[2] Ibid

Bhore Committee Report (1946) was one of the first revolutionary alternative to the existing health system in the country.

The focus gradually shifted from institutionalization to setting up mental health services within the community. Yet it took about three decades for the integration of mental health in primary care and setting up of general hospital psychiatric units (GHPUs) and district mental health programmes. Training General Practitioners was another strategy adopted in decentralizing mental health services. The National Mental Health Programme (1982) was the outcome of developments of providing mental health care through the various methods mentioned above. The programme aimed at ensuring availability and accessibility of minimum mental health care for all and also promoting community participation in mental health services as two important objectives besides many others.

The voluntary sector has also played a crucial role in demonstrating quality and community approach to mental health services as well as in bringing rights discourse to the current mental health scenario.

Magnitude of Mental Health Problems

Some of the studies done in the area of magnitude of mental health problems and disability caused due to the same reveal the following:

- Mental & Behavioral disorders (MBDs) account for 12% of the global burden of diseases.
- Unipolar depression to be the second leading cause of global burden of disability by 2020.
- 87,300 suicide deaths every year worldwide.
- Mental and behavioral disorders affect more that 25% of people at any given time. This means 450 million people worldwide are affected by mental neurological or behavioral problems at any given time.
- 1 in every 4 families has 1 member with mental illness.
- 1 in every 100 suffers from a severe mental disorder, which would constitute about 10 million citizens of India.
- Up to 20-40% attending primary health care services or general health care settings, suffer from Common Mental Disorders (CMDs)[3]

It's therefore not difficult to imagine the enormous social and economic burden and human suffering caused by mental illnesses.

Mental Health Service Scenario in India

Despite the fact that mental health problems are so common and contribute to the global burden of disease and disability, the disparity between mental health needs of a population and available services remains too huge.

In a seminal article Dr. R.S. Murthy states, that the number of qualified psychiatrists working both in the government and private practice settings is estimated to be about 2,000 in 1997[4]. However the number of other mental health professionals like clinical psychologists (500), psychiatric social workers (300) and psychiatric nurses (600) remains to be the same as the figures quoted by the National Mental Health Programme, 1982. The recent Atlas project of the WHO reports that all countries in the South-East Asian region and nearly all countries in Africa have less than one psychiatrist for 1,00,000 population. The population of India now exceeding 1

[3] Women's Mental Health – Evidence Based Review, 2000. Desjarlis R et. al. 1995.World Mental Health – Problems and Priorities in Low Income Countries, New York, Oxford University Press. Patel V, 2003. Common Mental Disorders in General Health Care: Evidence for policy, practice and research in India. The Sangath Society, Goa. www.disabilityindia.org

[4] Murthy R. S., 2000. op.cit.

billion people has access to less than 4,000 psychiatrists as compared to the nearly 80,000 psychiatrists for 840 million in Europe[5]. A recent mental health survey report conducted by WHO states that in India there is allocation of only 0.25 beds for psychiatric disorders per 10,000 citizens. The report also suggests that more than 680 million people, the majority of whom are in Africa and Asia, have access to less than one psychiatrist per million[6]. According to the data of the National Human Rights Commission, there are about 3,500 psychiatrists, 1,000 psychiatric social workers, 1,000 clinical psychologists and 900 psychiatric nurses in the country[7].

One of the reflections of lack of adequate human resources and lack of access to basic mental health care services can be seen in the budgetary allocations to the field of mental health. Mental health budgets of majority of the countries constitutes less than one percent of their total health expenditure, India being no exception to this rule. A budgetary allocation of Rs. 28 crores had been made during the ninth five-year plan period for the National Mental Health Programme. Though there is now a proposed allotment of Rs. 220 crores for the mental health sector during the tenth five-year plan, the meager budgetary allocations mentioned above show low prioritization accorded to the mental health sector[7].

The disparity between needs and services becomes even more glaring, when one looks at the nature and the range of existing state-run mental health services. The most eye-opening example is the plight of government mental hospitals/institutions in India. Despite the growth of private psychiatric institutions, the core of residential care for patients with serious mental illnesses, have been government-run mental hospitals. Apart from the labels and the stigma attached, more serious attention needs to be drawn to the functioning of the hospitals and the gross atrocities against the mentally ill even after several public interest litigations and Supreme Court initiatives, as well as media exposure. These have exposed the gross neglect and exploitation of the mentally ill in the institutional settings. *"Quality Assurance in Mental Health",* a project undertaken in 1997 and published in 1999 by NHRC highlights many of these violations. *"38% of the hospitals still retain the jail like structure that they had at the time of inception... 57% have high walls... Overcrowding in large hospitals was evident... The overall ration of cots: patient is 1:1.4 indicating that floor beds are a common occurrence in many hospitals. Many hospitals have problems with running water... Water storage facilities are poor in 70% of hospitals... 89% had closed wards, while 51% has exclusively closed wards... Leaking roofs, overflowing toilets, eroded floors, broken doors and windows are a common site... Only 14% of the staff felt their hospital in-patient facilities was adequate. Less than half of the hospitals have clinical psychologists and psychiatric social workers... trained psychiatric nurses were present in less than 25% of the hospitals... Even routine blood and urine examination facilities were not available in more than 20% of the hospitals... Only about 36% of mental hospitals have a separate facility for vocational training... Only 4 provide day-care services. 8.33% of government psychiatric hospitals have*

[5] Patel V, Thara R. 2003. Meeting Mental Health Needs of Developing Countries – NGO Innovations in India. Sage Publication, New Delhi.

[6] Murthy RS, 2001. Letter to Editor – Lessons from the Erwadi Tragedy for Mental Health Care in India, Indian Journal of Psychiatry, 2001, 43/4, Accessed from <http: //www.ijponline.org/oct 2001/indljp.letters.html> on January 22, 2005

[7] Kakade S. et.al. 2001. Mahajan Committee Report: A Bombay High Court Report on status of mental hospital services in Maharashtra with recommendations for reform. Center for Advocacy in Mental Health, Pune

rehabilitation wards and half-way home facilities are affordable only to the upper socio-economic groups".[8]

This clearly brings out the state of government-run mental health institutions and overall mental health service scenario in India.

Urban Mental Health Scenario – A Case Study of the City of Mumbai

Mumbai is a prototypical example to urban mental health issues. The fast city life, modernization, overcrowding and poor conditions, rising crime and violence and insecurities resulting out of the same, diminishing support systems are some of the many stressors experienced by people in Mumbai.

Organized government sector in Mumbai caters to a large population and consists of government and municipal corporation hospitals. Every year, this sector caters to approximately 33 - 40,000 newly diagnosed mentally ill patients and the follow-up consists of 1.8 - 2 lakh patients having common mental disorders. Private sector consisting of practicing psychiatrists, charitable trusts and private hospitals, serve three times more the patients seen in the organized public sector. The number of Psychiatrists in teaching hospitals is 60 and another 160-90 in private practice. The number of psychiatric social workers is 20 in public hospitals and 40 in different NGOs. Clinical Psychologists on the other hand are 700 in number, out of which 100 are in an organized academic sector. Out of the rest only 40% are actively working in the field of mental health.

There are 12 municipal and government hospitals providing mental health services in Mumbai. The range of services available in these government hospitals are Out-patient and In-patient facilities, referral services with only 8 out of the 12 providing Child Guidance Clinic (CGC) facilities, 2 providing deaddiction facilities. Approximately 300 beds are available in these 12 hospitals. Facilities for institutionalization are available only at the regional mental hospital, Thane.

The range of services provided by the Voluntary sector includes 2 half-way homes, 5 day-care centers, 5 support groups, 6 help lines, 8 deaddiction centers and a few child guidance clinics.

Mental health training opportunities in Mumbai constitute of Teaching Hospitals at the municipal level offering courses in Psychiatry, Mumbai University & SNDT offering courses in clinical psychology at post-graduate level, Tata institute of social sciences offering courses in psychiatric social work and courses for psychiatric nursing being offered by SNDT and other teaching hospitals[9].

The figures mentioned above bring out scarcity of mental health training and service options in a metro city like Mumbai. Existing services are concentrated at the city level and may leave out many, who live in suburbs. Access and affordability to psychosocial services seems to be still beyond reach for most.

Gaps in the Existing Mental Health Service System

Biomedical Bias

The existing services display a biomedical bias, resulting in drug prescription as the first and many a time the last service option being provided. The biomedical bias neglects the role of social determinants in the etiology and outcome of mental illness and distress. To clarify this further we can take example of a woman facing violence at home. When such a woman approaches the mental health care system for somatic symptoms or trauma caused by violence, she is often given a

[8] Kakade S. et.al. 2001. Mahajan Committee Report: A Bombay High Court Report on status of mental hospital services in Maharashtra with recommendations for reform. Center for Advocacy in Mental Health, Pune

[9] 34thAnnual Conference of the Indian Psychiatric Society, western zonal branch (ACIPS-WZB), Mumbai. 2003.

psychiatric diagnosis and prescribed drugs for. The context of violence is never touched upon. Naturally a mere prescription approach is bound to fail in such a case.

Availability and Accessibility

The National Mental Health Programme, 1987, hopes to serve various objectives. Ensuring availability and accessibility of minimum mental health care for all, particularly to the most vulnerable and under- privileged sections of population, is the first and the foremost of the list. Besides this it also aims at encouraging application of mental health knowledge to general health care and promoting community participation in the mental health service development.

However since National Mental Health Programme is not followed in many states, even the basic mental health services may not be available to those who are in need of these services.

Unequal distribution of services is another point of concern. Most available services, though medical in nature, are concentrated in metro cities or are available at district levels. Money and time involved in reaching these services may make them inaccessible for many.

Given this picture, availability of psychosocial and rehabilitation services like counseling, halfway homes, de-addiction centers etc. remains a rarity.

Mental Health Services for certain special interest groups such as wandering mentally ill, street children, prison inmates, women in prostitution are virtually non-existent.

Psychotropic Drugs

Shortage or non-availability of medicines is a perpetual difficulty faced by many government run hospitals. This shortage has more pronounced effects on users of mental health services. This is because psychotropic drugs are prescribed for a longer duration (often even a lifetime) as compared to drugs for physical disorders. This really keeps economically vulnerable sections of the society deprived of mental health services or result in poor drug compliance.

These medicines are also known to have severe disabling side effects, which are never explained to the client or the caregivers, nor is information about diagnosis and treatment procedures shared with them.

Electro Convulsive Therapy

Though unmodified ECT, (ECT without anesthesia), is an undesirable practice, it is often followed by private practitioners and state run facilities.

There is enough evidence which documents the multiple side effects or complaints following ECT. These could range from headaches and nausea to irreversible memory loss. The recent APA Task Force on ECT, 2001 notes that mortality rates with ECT (modified i.e. ECT with anesthesia) may be as high as 1 in 10,000 patients, whereas consumers quote it to be as high as 1 in 100.

The European CPT (Convention for the Prevention of Torture) 2002 prohibits the use of direct ECT as a form of torture[10]. Thus ECT without anesthesia is a human rights violation.

The procedure of direct ECT has recently been placed as controversial and contested issue before the Supreme Court, through a petition filed by 'Sarthak', a mental Health NGO based in New Delhi[11].

Even psychiatry textbooks clearly state that ECT should be used only under specific circumstances (e.g. catatonia, stupor, serious suicidal ideation, treatment resistant cases,

[10] Waikar et. al. 2003. ECT without anesthesia is unethical. Issues in Medical Ethics, Vol. XI, No.2, April-June, 2003.

[11] Waikar et. al. 2003. Electro convulsive Therapy: therapy or torture? Health Action, November, 2003.

etc.) However what we often see in practice is ECT being used as the first choice of treatment by many private practitioners. One ECT may cost anywhere between Rs. 500/- to Rs. 1000/. The financial gains in administering ECT (which is usually administered in a set of six ECTs per patient) are pretty obvious from this.

ECT is also used to control and manage patients in many state- run homes, even when it's not required. Both the patients and the caretakers are not informed or taken consent about the procedures. Modified ECT requires availability of emergency medical services, which are absent in most cases.

Thus strict guidelines need to be established for when and how ECT should be administered.

Quality of Care

Lack of consent, denial of right to information, abuse (emotional and at times sexual) at the hands of mental health professionals, gender insensitivity are some other issues regarding quality of mental health services offered.

The death of 26 persons with mental illness killed in the tragic fire accident on 6th August 2001, at Erwadi, focuses on the need for improving quality of mental health care. The NHRC data cited in earlier sections of this report also substantiates this fact.

To summarize, the existing mental Health Care System has inadequacies and limitations both quantitatively and qualitatively.

Alternative Paradigms in Mental Health

The current understanding of mental health and mental illness is predominantly biomedical in nature. This is in spite of the fact that current research provides strong evidence for bio-psychosocial nature of mental disorders. Whatever physiological processes involved; the quality of person's social environment influences both vulnerability of mental illness and the course and outcome of that illness.

Mental disorders are not simply symptoms of broader social conditions, nevertheless, poverty, lack of security, violence, lack of healthy family relationships during childhood and trauma or significant losses are crucial factors for mental illness[12]. Similarly gender is another critical determinant of mental health. Mental health definition by World Health Organisation strongly brings out the role of psychosocial factors in mental health.

Research literature on common mental disorders (depression, phobic disorders, generalized anxiety disorders, adjustment disorders etc) from South Asia convincingly demonstrate the high prevalence of common mental disorders and the strong associations with female gender, poverty and low education and with disability[13].

This overwhelming fact, points out to the need for developing holistic understanding of mental health. A holistic understanding would not be illness-centric. It will concentrate on the individual factors, but at the same time consider the social, economical, political context in which individuals live.

The current understanding and implementation of mental health programs seems to be focused on curative aspects. This would invariably result in preoccupation with illness and symptoms and may neglect the vital concept of well-being. A holistic understanding on the other hand, would require, inclusion of both preventive and promotive aspects.

We need to develop multi pronged solutions to deal with mental health issues. This first

[12] Desjarlis R et. al. 1995.World Mental Health – Problems and Priorities in Low Income Countries, New York, Oxford University Press.

[13] Patel V, 2003. Common Mental Disorders in General Health Care: Evidence for policy, practice and research in India. The Sangath Society, Goa.

includes availing a range of services, such as, awareness creation, counseling, work with families, support groups, day-care centers, halfway homes, de-addiction centers, child guidance clinics, crisis centers for women victims of violence and a host of other supportive services such as shelters, vocational training centers, employment bureaus etc.

Secondly it would require widening our understanding of who the mental health service providers should be & creating a new cadre of them. Role of other mental health professionals such as psychologists, social workers, counselors etc. needs to be clearly articulated.

All this requires a shift from a specialist-oriented model. Generating newer training options and fostering a true multidisciplinary spirit, become prerequisites in such a case. This would truly help us in moving away from a hospital-based model to community-based alternatives.

In addition to all this we must utilize culturally relevant support systems such as families, neighborhood, community groups etc as healing spaces. Traditional & indigenous healing practices need to be explored and researched further. These practices are already being utilized by a large number of people in our country. They are also close to explanatory models and cultural experiences of people. The western-medical model of mental health discards all these practices as unscientific and exploitative. The author is aware of certain oppressive and exploitative elements in such practices, especially for certain vulnerable sections (e.g. women and children). However, further research is required in this area, which will help us know the efficacy of such practices and strengthen the therapeutic value offered by them.

Mental Health Law

The Indian Lunacy Act of 1912(ILA) regulates the functioning of mental hospitals in the country. This law views mental illness as a 'Law and Order' problem. Therefore the procedure of involuntary commitment is required to be activated in order to protect society from the disruptive & dangerous manifestations of mental illness. Mental hospitals are, thus required to function as custodial houses and not treatment centers[14]. The way mentally ill is defined in the Act is too vague and stigmatizing.

As compared to this Mental Health Act, of 1987 is a more progressive legislation. The way it defines mental illness is less stigmatizing. The act primarily talks about admission and discharge procedures to mental or psychiatric hospitals, along with licensing procedures. The act places the responsibility for planning and monitoring mental health functions on the state and details out structures to carry the same.

It has a section on protection of human rights of mentally ill persons. This section helps to prevent any kind of abuse or exploitation during treatment period and ensure dignified status to mentally ill people while accessing mental health services. It also has a provision of Legal Aid for mentally ill people having insufficient Legal representation and who are in need of the same.

Unfortunately not all states have formed the state level Mental Health Authority and initiated the process of planning of state mental health services, licensing of the hospitals and related matters.

Besides this the Mental Health Act has certain limitations.

1. It is still custodial in nature.
2. It remains silent on matters pertaining to care, treatment and rehabilitation.
3. There is no provision, which requires that commitments to a psychiatric hospital should be ordered only if less restrictive alternatives are inappropriate[14].

[14] Dhanda A, 1993. Mental Health Law and Policy: Need for Co-operation. Mental Health in India – Issues and Concerns, Mane P & Gandevia, K (eds), Mumbai, Tata Institute Of Social Sciences.

4. The role of psychiatrists and general practitioners in certification and admission procedures is detailed out. However, the role of the other mental health professionals such as clinical psychologist, psychiatric social workers and psychiatric nurses receives no mention. This cleanly brings out low prioritization accorded to psychosocial management in treatment of mental disorders.

These limitations highlight the fact that, though non-implementation of Act is an issue of concern, the Act itself requires being re-looked at.

Another recent statute of importance to mental health field is PDA. The Persons with Disabilities –Equal Opportunity, Full participation and protection of Rights Act of 1995.The act includes mental illness as a disability besides other physical disabilities. As the name suggests, it gives equal opportunities to disabled people, protects their rights and ensures full participation in the society. It also creates opportunities and statutory obligation for social justice to the disabled persons included[15].

Though inclusion of mental disability in the Act has come under a lot of controversy, the act, if implemented will go a long way in ensuring mentally disabled their due rights.

Recommendations for a Comprehensive Mental Health Policy And Service

- Need for increase in budgetary allocations for mental health.
- Need to increase the number of mental health services available.
- Need for inclusion of psychosocial services for improvement in the range and quality of available mental health services
- Immediate need to improve the conditions of state-run mental hospitals
- Need to constitute ethical guidelines for best practices in mental health including ECT use
- Need to go beyond the existing bio-medical model in context of MH services.
- Need for a shift from a hospital-based model to a community-based model of mental health
- Need to pay attention to and devise strategies for addressing common mental disorders as the current policy prioritizes the severe and chronic illnesses and neglects common mental disorders
- Need to highlight and implement preventive and promotive strategies as part of mental health programme
- Alternative paradigms in mental health need to be explored, researched and utilized for effective service provision
- Need to ensure
- increased participation of different stakeholders in service planning
- Need to devise and implement relevant mental health training mechanisms and include mental health in existing medical curricula
- Need to ensure equal opportunities for mentally disabled persons in areas of welfare and livelihood
- Need to pay special attention to advocacy and rights-based agenda in mental health
- A dire need for progressive mental health legislation
- Mental health being also a developmental issue, there is a need to design welfare and economic policies, which will promote overall mental health.

All this points towards the need for a comprehensive **National Mental Health Policy.**

[15] Banarjee G, 2001. The Concept of Disability and Mental Illness. Mental Health Reviews, Accessed from <http: //www.psyplexus.com/excl/cdmi.html> on January 22, 2005.

SECTION 3
HEALTH CARE ISSUES RELATED TO WOMEN AND CHILDREN

The State of Preventive Health and Nutritional Services for Children

Vandana Prasad

Introduction

Children (0-14 yrs) comprising 30 per cent of our population form a large group which is both specially vulnerable and beleaguered by a host of public health problems. Child health is also special, in that, like the health of the pregnant woman and foetus, it is most amenable to preventative action. Public health strategies have taken cognisance of this fact through the ages and provided a special and significant focus on 'maternal and child health (MCH)'.

This has been reflected in our country by programmes that have gone under various names in the last decade – MCH, CSSM[1] and reproductive and child health (RCH), as well as strategies such as GOBI[2], IMCI etc. (some of these have been dealt with in the following sections).

The health services rendered or envisaged by these programmes have largely been those of immunisation and supplementary feeding. To some extent, they have also tried to tackle breast-feeding issues and the management of common and fatal diseases like diarrhoea and pneumonia.

However, the best of strategies may only be as good as the systems that exist for their delivery. This appears to be the crux of the problem in actually being able to show a significant impact upon the indicators of child morbidity and mortality which have only shown very slow improvement through the decades.

Much of the delivery mechanism has been routed through the general health care tier of subcentres, community health centres, primary health centres (PHCs) and secondary and tertiary care government hospitals. Nevertheless, some special structures for care, including health care, have been in existence for many years. The most notable of these is the Integrated Child Development Services Scheme (ICDS). Others include crèches for working and ailing mothers, the school health service and the school[1] Midday Meal Programme (MDMP). Newer structures have been envisaged/created to deal with 'disability' and mental health problems.

Of these structures, those providing general care like the ICDS and the crèche scheme, have a dual role to play in child health. Firstly, an important preventative one which makes it imperative to study their outreach and universality, and secondly as a vehicle for specific health services such as immunisation, supplementary feeding, health checks and referral. How they perform in both these areas requires evaluation and analysis.

Government schemes and strategies have also made a shift to recognise and 'use' so called public-private partnerships to move their maternal and child health strategies. This has been most visible in the reproductive and child health (RCH) programme which has involved NGOs in a large way for training and facilitation as well as delivery of services.

NGOs have also devised their own parallel strategies and programmes for child health with the help of a range of funding agencies sometimes carrying target specific agenda like

[1] Child survival and safe motherhood
[2] A UNICEF package for growth monitoring, oral rehydration therapy, breast feeding and immunisation

AIDS. However, the scale of these programmes remains small.

Simultaneously, a huge chaotic burgeoning of private practice at various levels also impacts child health, often in complete disjunction with public health strategies.

This section will attempt to look at the data that exists for the State systems of health care specifically related to children and try to analyse the strengths and weaknesses that exist within them and contribute to the efficacy or lack of it. The bulk of the focus will be on to ICDS as the largest scheme soaking up most of the budget for child care with the greatest potential for an impact on health.

General health care services, immunisation and RCH have been dealt with in the following sections. Documentation of the role of child health services given by NGOs is patchy and does not provide much data. However, the general approach, strategies and health services may be discussed very briefly by example.

The private systems of health care form the lion's share of curative care being accessed by even the poorest people in India for their children. However, little genuine data exists about its impact on child health. Clearly more research is required in this area, but this facet may have to remain outside the scope of this paper.

Health and Nutritional Services for the Under Sixes

The Integrated Child Development Services Scheme

This scheme has been in existence since 1975 to serve the comprehensive needs of children under the age of six. Conceptually progressive for its time at the point of inception, it was envisaged as the vehicle for preventative health services as well as pre school education or Early Childhood Care and Education (ECCE)/Development. (see box for objectives and services)

Box 1: Package of Services of the ICDS Programme

Package of Services of the ICDS Programme

1. Supplementary nutrition (SNP)
2. Immunisation
3. Health check ups
4. Treatment of common diseases like diarrhoea, dysentery, respiratory infection, skin and eye diseases
5. Deworming
6. Referral services
7. Nutrition and health education
8. Growth monitoring and promotion
9. Vitamin A and IFA supplementation
10. Pre school non formal education

(Most of the services pertain to health and nutrition)

Target Population

1. Children under 6 yrs
2. Adolescent girls 11-15 yrs in select areas
3. Women in age group 15-45 yrs

About 50 per cent of the population!

However, as with many well-conceptualised schemes, this one also fell far short of its objectives due to gross inattention to setting up implementation capacities within the scheme. It was as though having articulated a good intention, there was no real will to have it translated into action. To clarify, 150 million odd children in this critical age group (157.9 million as per Census 2001) were to be covered by a scheme that considered this an essential service that was supposed to link up both to formal systems of health and education and informal or 'voluntary' effort, yet was kept short on both funds and personnel, making it virtually impossible to achieve its targets. The entire task of looking after the young children of a population of 1000 both at the centre and within homes in the community was to be undertaken by a

single poor, poorly trained and very poorly remunerated 'honorary' worker aided by an even worse off 'helper'. (It may be noted that with effect from April 2002 the honoraria of workers and helpers has been increased from rupees 500 to 1000 and 250 to 480 rupees and they have also been authorised maternity leave for 135 days.)

The team with their meagre resources and lack of infrastructure (sometimes not even a roof or room and often within the living quarters of the worker) was meant to comprehensively look after the needs of India's malnourished and poverty stricken children and achieve goals that would translate to statistics of better growth and lower mortality. One wonders how much could have been achieved if the scheme had been formulated with a serious intention all those years ago as a formal service with formal 'workers', proper infrastructure and facilities and adequate budgets.

Now, over 25 years down the line, the lack of achievement in the main indices of child health and nutrition with all their impact on education and educatability, population stabilisation and general morbidity of the adolescent and adult population (specially female) are staring us in the face and costing the national exchequer increasingly more every year.

- The ICDS has been reviewed and evaluated periodically by many agencies. The Comptroller and Auditor General (CAG) of India came out with an annual report for the year ended March 1999 for submission to the President. The Report of the Comptroller and Auditor General of India (Union Govt. – Performance Appraisal – No. 3 of 2000) reviewed amongst other schemes reviewed the mid day meal programme as well as the ICDS. Henceforth, this will be referred to as 'the CAG report'.
- The other main body of recent work on the ICDS has been developed by the NCAER which conducted first a Pilot Study and then a nation-wide Concurrent Study on the ICDS from 1996 onwards, reported in June 2001.[3] The concurrent evaluation is a large and comprehensive study covering 60,000 AWCs and 1.8 lakh beneficiaries from 4000 operational blocks. (These will be referred to as 'the Pilot Study,' and 'the NCAER Study' respectively.) Though the study paints an overall satisfactory picture of the functioning of the ICDS, some glaring facts are apparent between the lines. The pilot study itself expresses the apprehension that centres may be forewarned to present a picture that exceeds reality and that is how it appears when stark differences are apparent between 'the study' and experience cited on the ground. Some of these differences and findings will be presented.

The main issues of health care services within the ICDS may be stated as

1. Outreach and universality of coverage
   - In terms of geography
   - In terms of age group
2. Access
   - Caste and tribe issues
   - Geography
3. Infrastructure
4. Actual provision of health services through the ICDS system and convergence with other health care systems
5. Nutritional services and Health education for Older Children

Outreach and Universality of Coverage

As per the Annual Report of the Department of Women and Child Development (2002-2003) of the total number of 5652 blocks in the country, (tribal 759, rural 4533 and urban 360), 4761 blocks are covered by ICDS Projects. Of these, 922 are being funded by

[3] Distribution Of Severely Malnourished Children By Age, Pilot Study NCAER 2001

loans from the World Bank though 187 are to become operational during 2003.

Of the 4730 General ICDS Projects, 3873 are currently operational. The remaining 857 blocks are to be covered during the course of the Tenth Plan. (However it is worth noting that universalisation of the ICDS has been on the cards since 1997)

Currently, services are said to be provided to 33.2 million children under the age of 6 years (21 per cent of the under six population) of which 17.65 million attend centres, and 6.2 million pregnant and lactating mothers through 580 000 anganwadi centres. Yet, as per the norm of one anganwadi per 1000 population there should be 1 million anganwadis (about twice as many)

However, the World Bank thinks otherwise. Proposing a draft of measures for priority action, it said that in the ICDS Programme, the reach should be 6-24 month old children as well as pregnant women, especially those living in hamlets. It also recommended the f*reezing of further expansion until quality and impact are improved measurably* and that meeting substantially higher standards in current programme areas was also necessary.

There are about 1.2 million anganwadi workers and helpers and a staffing gap of 46849 anganwadi workers.

Registration

The NCAER study showed 65 per cent of eligible children and 75 per cent of eligible women to be registered. Of the eligible women registered, 62 per cent were enrolled for the supplementary nutrition (SNP), 60 per cent for ante natal care (ANC), 40 per cent had iron and folic acid tablets (IFA) and health checks, 27 per cent received tetanus toxoid injections (TT) and 24 per cent were referred. Children between 13 and 36 months had the highest level of enrolment and children between 37 months and 72 months the least.

However, only half this number of those registered were found to be present a week before the survey. There was a significant male bias to child registration. This was more pronounced as the age of the child increased and girls were held back from the centre to assist at home.

Access

In our experience, access, both in terms of geography and social exclusion on the basis of tribe and caste has been a long-standing issue for the implementation of the ICDS.

However, according to the NCAER study, the average distance between anganwadi centres (AWCs) and their beneficiaries is only 139.9 meters (the longest distance being about 500 meters) and average time taken to reach a centre is 7.5 minutes. Previous studies had pointed to about 80 per cent of AWCs being within 3 kms, i.e. even the standard used was of 3 kms. The NCAER study also reports that discrimination on the basis of caste and tribe was negligible. Again, experience and micro studies (for example PRAXIS-CARE India study on Underlying Causes of Poor RCH) in many States including Karnataka, UP, Jharkhand, Rajasthan, Chattisgarh, and Orissa tell a very different story of children being segregated, made to sit outside etc. Caste also plays a role in appointments to related posts. It is equally true that in many places the anganwadi has been able to break caste barriers when a motivated AWW ensures that there is no discrimination.

Infrastructure

The NCAER study found that most AWCs functioned out of their own premises. 40 per cent were in *pucca (permanent/cemented)* structures and 20 per cent were in *kutcha (temporary/mud and thatch)* structures .13.8 per cent were functioning out of the house of the anganwadi worker (ANW) and 1.9 per cent were still functioning in open spaces, e.g. under trees. This translates to about 1 lakh 'kutcha' anganwadis catering to about 80 lakh

children and about 11,000 AWCs in the open catering to about 90,000 children.

Only 17 per cent had toilets and 49.2 per cent had adequate cooking space. **It is significant that 25 per cent of the AWCs did not have weighing scales!**

Provision and Facilitation of Health Services through ICDS System

Health Check Up and Referral Services

The NCAER study revealed a low rate of health checks at 29.4 per cent of children and 43 per cent of eligible women. 24 per cent of pregnant and lactating women received referral as well as 11 per cent of the enrolled children.

According to the CAG report:

Box 2: Findings of the CAG Report regarding Health Checks

1. Base line surveys for identification of beneficiaries were not done in most States.
2. The range of shortfall in health checks was from 0 to 90 per cent of that required.
3. In eight states no records or referral cards were kept or available
4. Reasons for non referral included cost of transportation and medicine

Growth Monitoring

As mentioned previously, 25 per cent of AWCs did not even possess weighing scales. Only 40 per cent of AWCs were maintaining growth charts. Reasons for not maintaining charts included lack of time and training.

However, the following figures are still quoted by the study on malnutrition Less than 25 per cent of the registered children suffered from undernutrition. Severe malnutrition was at less than 3 per cent and moderate malnutrition at 11.3 per cent.

In terms of age group, National institute of Nutrition figures for rural areas show higher figures: 6.4 % children in the pooled age group of 1-3 and 3-5 show severe malnutrition.[4]

It would be fair to question the veracity of these figures on the basis of the information above as well as micro studies that hint at underreporting through the ICDS, one example of which is given below. NCAER's own *pilot* study shows large numbers of children in the category of severe malnutrition but the figures have not been presented in a way that percentages can be drawn since the total number of children is not given! Figures for female children having severe malnutrition were found to be much higher than for male children in the pilot study. These findings seem to be overturned in the larger concurrent evaluation.

The following comparison was made between ICDS figures and assessments made by Gyan Vigyan Samiti, Uttar Pradesh in the anganwadi centre at Ranikheda, a district of Bachhrawa.

These Figures reflect:

1. Inadequate registration (though it justsatisfies the norms of 80 children per AWC)
2. Over reporting of 'normal' children
3. Underreporting of Grade I and Grade IV children

Table 1
Distribution Of Severely Malnourished Children By Age, Pilot Study NCAER 2001

Moderate Malnutrition			Severe Malnutrition		
6-12 mths	13-36mths	37-72mths	6-12mths	13-36mths	37-72mths
6.4%	7.7%	15.7%	1.3%	3.6%	1.4%

[4] Diet and Nutritional Status of Rural Population. National Institute of Nutrition. Indian Council of Medical Research.

Table2
Distribution Of Severely Malnourished Children By Age and Sex Pilot Study NCAER

0-6 mths		6-12 mths		1-3 yrs		3-6 yrs	
Male	Female	M	F	M	F	M	F
2	67	13	127	38	293	31	224

Table 3
Comparison of ICDS figures\and GVSUP figures

	Normal	Grade I	Grade II	Grade III	Grade IV
ICDS figures 80 children 0-6yrs	36.255%	26.25%	25%	12.5.5	—-
GVSUP figures 132 children 0-6yrs	9.8%	55.3%	21.9%	11.36%	1.5%

Thus, the important service of growth monitoring through the ICDS to prevent malnutrition seems to be in dire straits.

Immunisation

According to the CAG report:

Box 3: Findings of the CAG Report regarding Immunization

1. In 15 states there was no identification of beneficiaries or monitoring of achievements regarding immunisation.
2. In 17 states, the average shortfall in immunisation was 20 per cent.
3. From 1992 to 1999, there has been no significant improvement in immunisation coverage.
4. Vaccine wise coverage showed measles as the least covered vaccine (in concordance with NFHS II)
5. In test-checked projects, the vaccinated number was invariably more than the number of identified beneficiaries suggesting manipulation of data.

However the NCAER study states that 74 per cent of the children were immunised. Only 26.7 per cent of eligible women received TT injections.

Medicine Kits

A provision of Rs. 300 per year per centre was made available to state governments for purchase of medicines for use by the ICDS! However, in 1984, it was decided that medicine kits be procured centrally. Since there were poor systems for distribution, medicine kits were not supplied in the years 1992-95 and 1998-99. Even within this measly budget, the following irregularities were noted according to the CAG report:

1. Medicine kits in excess of functioning anganwadi centres were purchased for Rs 58,300,000 without satisfactory explanation.
2. Simultaneously, medicine kits were not supplied to anganwadis on grounds of non-availability!
3. Medicine kits of Rs 6,450,000 received in 1996-97 remained unutilised till 1999!
4. 2074 kits worth Rs 8,150,000 were distributed to officials not connected with the ICDS.
5. Substandard cotton and medical items were found in the kits.

Only 26 per cent AWCs were found to be using medical kits according to the NCAER study. Reasons for non-usage included non-availability and out dated medicines.

Nutritional Services and Health Education

According to the CAG report

1. In 91 per cent of the projects, no health awareness activities, film shows/slide shows etc were carried out. This was due to non availability of media, defective projectors and other equipment, lack of training for use of equipment and of course, general lack of time and motivation
2. In 11 states, there was a 27 per cent shortfall in home visits.

These broad findings were echoed by the NCAER study. Alarmingly, though many women (three out of four eligible) reported receiving postnatal home visits by the anganwadi worker AWW)/Auxiliary nurse midwife (ANM)/Lady Health Visitor (LHV), **only 31 per cent were advised on colostrum feeding**.

Supply of Vitamin A and IFA Tablets

Under the National Prophylaxis Programme for prevention of blindness, all children are expected to get vitamin A supplements starting at 9 months of age and then six monthly till 3 years of age. Adolescent girl children and women in the age group 15-45 are expected to receive both vitamin A and Iron and Folic Acid tablets. This was to be indented by the State nodal department from the State Health and Family Welfare Department.

However, the CAG study revealed:

Box 5: Findings of the CAG Report regarding Supply of Vitamin A and IFA Tablets

1. The Ministry of Health and Family Welfare was unable to provide any records of Vitamin A distribution
2. No record of receipt or distribution of Vitamin A was found in any of the 72 projects tested in five states
3. In four states there was no supply of Vitamin A at all during 1992-99
4. In 234 out of 283 projects in eight states no beneficiaries received Vitamin A

As mentioned above, only 44 per cent of eligible women were even registered for IFA as per the NCAER study. Vitamin A was supplied only to 20 per cent of the households as per the pilot study.

Supplementary Nutrition

Supplementary Nutrition is supposed to be provided to children and to expectant and nursing mothers from low-income families for 300 days in a year. The aim is to supplement the daily nutritional intake by 300 calories and 8-10 gm protein for children; 600 calories and 20gm protein for severely malnourished children and 500 calories and 20-25gm proteins for expectant and nursing mothers. The prescribed financial norm is *Rs 1 per beneficiary per day on an average and this is to include the cost of food, transport, administration, fuel and condiments* which is obviously too little. The expenditure is borne by the state governments. A further central assistance is provided under the Pradhan Mantri Gramodaya Yojna for all children

under 3 yrs below the poverty line for meeting gaps in RDA[5] (not to replace the supplementary nutrition being provided through the ICDS scheme).

However, here is what the CAG report had to say about supplementary nutrition:

1. Budget and expenditure for supplementary nutrition was lower than required in five states of Karnataka, Manipur, Mizoram, Punjab and Sikkim and ranged from 16 - 69 per cent of required expenditure.
2. 11 states were not able to furnish details of registration of beneficiaries. (On *an average, there should be 40 children under 3 yrs, 40 children 3-6 yrs, 2 adolescent girls and 20 pregnant and lactating mothers per anganwadi*)
3. 23 per cent of identified beneficiaries were not covered in 21 states.
4. All states suffered disruptions in supplementary nutrition for a variety of reasons including lack of funds, lack of food supplies, lack of systems of distribution and general negligence. Disruptions as severe as for over 250 days in a yearwere noticed in some cases.
5. Lab tests are mandated once a month to ensure nutritional content. However, these were rarely carried out. Where tests were conducted, the food was much lower than prescribed in terms of protein and caloric content. *This is hardly surprising considering the inadequate funds allocated*. Five states clearly expressed their inability to supply adequate food within the norm of 1 rupee per beneficiary per day.
6. Sub standard oil, infested gram, inedible food, adulterated *suji (*semolina*)* and food unfit for human consumption were all beingconsumed.
7. No therapeutic food was given in nine states to severely malnourished children and babies.

According to the NCAER study, more than 67 per cent of AWCs provided supplementary nutrition (SN) for over 21 days in the month.

Of the beneficiary children enrolled, 53.5 per cent were receiving single diet, 1.4 per cent received double diet. 62 per cent of eligible women received SN.

Fourteen per cent of households found the food to be of poor quality (range 1 per cent to 64 per cent). However, on the whole, children and parents appreciated the food available.

Box 6: Implementation of Poverty Alleviation & Food-based Schemes in Bihar

The State Government has admitted that there is no feeding of children under this scheme in the first few months of the financial year, as financial sanction is not issued in time. This year too, financial sanction was issued only on the 18th August. The State government has written to the Accountant General to permit opening of Personal Ledger Accounts at the district level so that the balance of the previous year does not lapse on the 31st March. Hopefully this will ensure that centers run all the 12 months of the year, provided funds are made available for feeding the children.

Discussion with the Field officers and Project Director ICDS revealed that actual feeding at the center takes place for hardly two to four months in a year, and that too for a limited number of children, just 25 per center (as against an average of 200 children per centre). This is both contrary to the GoI guidelines as well as Supreme Court orders that are quoted below:

State Government is spending just 15 paise per day per child on the cost of grain and its conversion to cooked meal.

Source : N.C. Saxena, Commissioner, Food Security, Supreme Court

[5] Recommended dietary allowance

Table 4
The Comptroller and Auditor General (CAG) Report
(Figures in percentage)

No.	Process indicators	Orissa		Andhra Pradesh	
		Targets	Achievements	Targets	Achievements
1.	Early Registration of Pregnant Women	50	13.4	50	71.5
2.	Total Registration of Pregnant Women	80	72	80	87.2
3.	Obstetrical & nutritional risk assessment of thoseRegistered	**100**	**5.5**	**100**	**39.7**
4.	Tetanus toxoid immunisation of pregnant women	80	84.3	90	93.5
5.	Consumption of iron and folic acid tablets for at least 12weeks by pregnant women	60	33.1	60	21.8
6.	Administration of post-partum Vitamin A to attendedDeliveries	**80**	**16**	**80**	**4.7**
7.	Food supplementation for at least 20 weeks to registeredpregnant women with inadequate nutrition status	60	33.5	80	49.5
8.	Food supplementation for at least 16 weeks to registeredlactating women with malnutrition in pregnancy.	**90**	**43.2**	**90**	**42.9**
9.	Immunisation (UIP-6) of children	85	63.1	90	71
10.	Vitamin A megadose (100,000-200,000) semi-annually tochildren 6-36 months	**80**	**14.8**	**80**	**35.8**
11.	Regular growth monitoring (>9 times a year) of children 0-3 years	80	69.8	80	65.2
12.	Supplementation of monitored children 0-3 years withgrade II-IV malnutrition.	**90**	**17.5**	**90**	**67.2**
13.	Completed referral of severely malnourished children(Grade III & IV) or non-responding children 0-3 years toVHN/MPWF and PHC	**80**	**13.3**	**80**	**6.0**
14.	Quarterly growth monitoring, weighing and charting ofchildren 3-5 years (>3 times of year)	60	74.2	80	53.4
15.	Referral of severely malnourished children 3-5 years ofage to MPWF/PHC	90	NA	90	6.0
16.	Administration of Vitamin A megadose semi-annually tochildren 3-5 years of age.	70	NA	80	35.8
17.	Routine deparasitisation of monitored children in mainlyinfected communities as determined by parasite surveys.	**80**	**17.7**	**90**	**16.9**
18.	Households use of oral rehydration in the last incidenceof diarrhoea in the target group.	50	84.1	60	6.5
19.	Treatment of pneumonia by MPWF/anganwadi workers with Cotrimexazole in cases of acute respiratory infection(ARI).	20	12.3	30	64.3
20.	Additional feeds of local weaning food initiated by 6months infants.	50	28.6	60	93.9

[6] Multipurpose worker female

World Bank 'Assisted' Projects

922 Health and Nutritionprojects are being funded through World Bank Loans. These have specific targets and process objectives that pertain to better impact on infant mortality rate (IMR) and malnutrition as well as immunisation coverage.

However, no expenditure was incurred on therapeutic food against an allocation of Rs.76,700 000 as per the CAG report.

An evaluation of the World Bank I and II projects by National Institute of Nutrition in the states of Orissa and Andhra Pradesh found that achievements were generallymuch below targets (see table below).

It is immediately obvious that though there is a greater focus and more funds in the World Bank assisted programmes, the problem of service delivery, specially referral and supply of 'material' through the system in terms of supplementary food, vitamin A and anti helminthics still remains. In effect, neither pregnant women who are at risk, nor severely malnourished children are managed effectively due to lack of material, infrastructure and inadequate linkages with the systems involved in health and nutrition related services.

The Crèche Scheme for Working and Ailing Mothers, National Crèche Fund

This scheme was set up as a childcare support to women at work. However, like the ICDS, it did not take into account the scale of the need it was meant to address. There are over 150 million women who work in the unorganised sector in this country as agricultural workers, construction workers and home based workers of various kinds.

Some of these areas of work have specific laws that amongst other entitlements also spell out mandatorychildcare arrangements at the workplace, such as the Acts for Mines, Plantations and Construction Work. Even these suffer from non-implementation. However, the bulk of women requiring childcare remain uncovered by law and would be potential beneficiaries of a scheme such as this had it been designed to work better.

The issues regarding this service and their analysis is as follows:

Outreach and Coverage

This scheme was also started in 1975 but has remained static at 12,470 crèches catering to about 311,000 beneficiaries since 1994! A further 4885 crèches exist as on 27 January 2003 through the National Crèche Fund which was set up in 1994 with a corpus of Rs.199, 000,000 made available through the Social Safety Net Adjustment Credit from the World Bank. The total number of children thus accommodated is a measly 430,000. This figure should be related to the fact that about 150 million poor women work in the unorganised sector, the Female Work Participation Rate is about 47.5 - 58.2 percent [7]and these women might be having about 50-60 million children in the age group 0-6 years. By this estimation, children in crèches are approximately a minuscule 0.7 percent of those who may require crèches!

Most of these crèches are run by 'voluntary' agencies who are paid 90 per cent of the total running costs as per scheme (Rs 18,480 per crèche per year or 1540 per crèche per month) by the Central Government. Other costs have to be met by them. The scheme stipulates that only children of family incomes less that 1800 rupees per month may be considered. This is most unreasonable, specifically in the urban -poor setting.

Health services apart from general care are supposed to include immunisation, supplementary nutrition and health checks and medicine.

[7] Jhabvala. R, 1995

However, the crèches running under the National Crèche Fund are required to become 'self supporting ' after a period of five years!

25 per cent of crèches under this fund are envisaged to be anganwadi cum crèche centres. In these centres a paltry monthly amount of 675 rupees extra are to be made available.This small sum is to support for two crèche workers at a monthly honorarium of Rs 300 each and a 75 rupees contingency fund! The discrimination against crèche workers is obvious even within the very poorly paid echelons of childcare workers as a whole.

As per an evaluation of the Crèche Scheme done by NIPCCD[8], the state of health services provided through it were reviewed as follows:

Supplementary Nutrition

The salient features found were that

1. In 5 per cent of crèches surveyed no nutrition was being provided
2. 82 per cent of crèches reported disruption in nutritional services every now and then
3. 19 per cent provided only boiled *chana (*chick peas*)* and pulses
4. In 84 per cent there was no effort t o provide special food for under threes
5. Even milk did not exist in crèches serving infants!
6. Children were fed only once during their stay of 5 - 7 hours
7. 67 per cent crèches served a good quantity of food.
8. It was found that quantities were most likely to be inadequate where ready to eat food was served as compared to local cooked food.
9. However almost all crèche workers and mothers felt that their children relished whatever they got at the crèche.
10. Only 65 per cent of children were made to wash their hands before eating

Health Checks

When the crèche scheme was introduced, Rs 150 per month was budgeted for weekly visits by a doctor and medicines. Even this ridiculous sum was subsequently withdrawn and instead Rs 125 was provided as medicine and contingency fund!

The salient findings regarding health checks were as follows:

1. In 58 per cent of the sampled units no health checks had ever happened since the withdrawal of the health check money (see table below).

Table 5
Health Checks

No.	Periodicity	No. of units	Percentage
1.	Weekly	0	0
2.	Monthly	93	31
3.	Three monthly	22	07
4.	Six monthly	08	03
5.	Yearly	03	01
6.	Never	174	58

Growth Monitoring

Growth monitoring was carried out in a very cursory way and that also only during a health check if that took place. No equipment was available for growth monitoring nor was any worker trained in growth monitoring.

Immunisation

The crèche took no initiative or responsibility for immunisation. There was no system for doing so. Children were reported to be immunised by parents but there was no documentary evidence.

Health Education, Mothers' Meetings, Home Visits

- Only 42 per cent mothers reported ever

[8] Gopal A.K and N. Khan, 1999

having been invited for a meeting at the crèche. 24 per cent had been going once a month, 14 per cent once in three months and 4 per cent once in six months.

- 41 per cent of workers had never conducted home visits. However, 9 per cent did daily home visits.

The crèche scheme is obviously beset by severe problems of poor value reflected by a poorly designed scheme with bare minimum resources and poorly paid and trained workers. Where things are functioning well, it can only be due to the motivation and additional resources of the handling 'voluntary agency'. Though only a small number of children are being catered to by this highly inadequate scheme in terms of percentage, we are talking of over 4 lakh vulnerable and valued babies and children. The potential for impact through schemes such as this is immense and their neglect amounts to cruelty, negligence and a violation of rights, apart from being a wasted opportunity.

Quality is of concern even in commercially run crèches and there is an urgent need for regulation of this service for the same reasons as above. These, as a number of small studies have shown, suffer from overcrowding, lack of trained personnel and poor attention to health services even though the charges are sometimes fairly high.

Health and Nutritional Services for Older Children through Schools

Just as children under six are to be kept healthy through the services of the ICDS, it is the school that is envisaged to look after the comprehensive needs of children over six years of age. Though its primary function is educational, the institution is well recognised the world over to perform a role that covers children's over all well being. As with the ICDS, the school system in India is supposed to provide both health and nutritional services.

School Health Service

The School Health Service in India dates back to 1909 when Baroda became the pioneer to start medical checks for children in schools. In 1960, following upon recommendations by the Bhore Committee (1946) and the Secondary Education Committee (1953), a School Health Committee was set up by the Government of India to suggest ways of improving the health and nutrition of school children which made detailed recommendations towards school health services and the mid day meal programme.

It is the PHC that is supposed to be responsible for carrying out school health services within its jurisdiction and these services should ideally include

- Health checks
- Follow up and remedial action
- Prevention of communicable diseases
- Ensuring a healthy school environment
- Nutritional services
- First aid and emergency care
- Mental health
- Dental health
- Eye health
- Health education
- Early diagnosis and management of disability
- Proper maintenance of records

However, it may be sufficient indictment of the priority given to this task that this service does not find any reference either in the Annual Report of the Ministry of Health or that of the Department of Education.

It can safely be assumed that the existence and performance of this service would have a direct correlation with the concerned state's general situation of health care though with a low priority. Some NGOs have also chosen this area to 'support' government schools and offer school health programmes.

Some positive reports are summarised below to illustrate the fact that the service does and can be made to function.

New Delhi
School Health Scheme was introduced in the year 1981 with a view to provide basic medical services to the students studying in various government schools in Delhi. The students covered under the School Health Scheme are thoroughly examined once a year and necessary steps are taken to immediately control any negative findings, if any are found.

Besides serving a basic purpose the School. Health Scheme also actively participated in implementing various programmes of public health importance in schools.

The programme is currently implemented in all 1200 schools of the Delhi Government and aided schools in partnership with 16 NGOs. About 12 lakh children are covered under it (Directorate of Health, New Delhi).

Sikkim
School Health Programme which was initiated in the year 1979 was made more comprehensive in nature and coverage. It covers students from class I to V with services like immunisation, health check up, Health Education and Teachers Training. Every year Primary School Teachers are also trained under this programme. Similarly, 15 Schools under Rangpo PHC have been taken up under National School Health Programme. Special School Health Check up Scheme was launched from 22 July 1996 for screening all Primary School Children for minor ailments like anaemia, night blindness, pyoderma, scabies, dental caries etc. The scheme was launched in co-ordination with the Education Department and 873 Schools and 94,707 children were screened under the Special School Health Scheme of which 51,324 children were treated in the health centres and hospital in the State.

Chandigarh
This programme is an on-going activity at the School Health Clinic located in the Sector 19 Dispensary. Last year 146 schools were covered and 63,239 students were given a check-up. Students suffering from various diseases were referred to nearby hospitals and dispensaries for treatment. The most commonly detected problem was anaemia, followed by worm infestation, night blindness, ear problems, scabies, pyoderma, eye and dental problems.

Tamil Nadu
The State of Tamilnadu in India has one of the best school health services in the country. In terms of healthcare, all the schools (government and private) in a particular area, are under a PHC medical officer. Thursdays are exclusively reserved for school health. This PHC medical officer forms two or three teams using the paramedical force at his disposal and develops an action plan by which a team makes at least three visits in a year to each of the schools in his area, on a rotation basis. He will pay at least one visit in a year to eachand screen all children. Each child is given a health card that is maintained by the school Headmaster and updated by the health team. The state through the state medical services corporation (TNMSC) supplies a fixed set of drugs exclusively to be used during the school health programme to each PHC at the start of the year. An up to date morbidity pattern during each visit is compiled at the end of the month and sent to the district and then forwarded to the state headquarters. As a part of the programme, at least one teacher from each school has been trained by the PHC medical officer to detect minor ailments and report immediately to the medical officer. Modules in the regional language have been developed at the state level and distributed to them. The modules also have techniques to teach 'health' to children'.[9]

[9] Dr.D.Sathyanarayanan, Institute of Community Medicine, Madras Medical College, Chennai

UNDP and School Health

UNDP is extending support to a government project that has been created to develop and demonstrate three inter-related but independent model interventions in the areas of Multi-sectoral Approach to Health, School Health and Community Health Care Financing. The project is based on the assumption that empowered communities, in partnerships with local government units and Community-Based Organisations/Non-Governmental Organisations, can plan, implement and manage their own health programmes. This programme covers selected sites in the states of Uttar Pradesh, Uttaranchal, West Bengal, Kerala, Karnataka and Delhi.

Assisted by a local health NGO, this pilot initiative focuses on building capacities of school teachers, Parent Teacher Associations (PTAs) and Government health personnel in select clusters, and has helped to develop a common perspective and understanding of the health of children.

The intervention supports training of one teacher from each class to do the initial screening of children in her/his class. PTAs are playing a critical role not only in monitoring the programme interventions but also in carrying the issues of hygiene and sanitation into their own neighbourhoods.

Fresh Approach, Gujarat

'Focusing Resources on Effective School Health (FRESH)' offers the additional package of Vitamin A, iron and antihelminthics along with the mid day meal programme covering 3 million school children in Gujarat.

Clearly, good quality school health services need to be 're discovered' and pushed as an essential preventative and promotive health service for children.

Midday Meal Programme

This programme was also recommended as early as 1960 by the School Health Committee and was to be operational all over the country through the efforts of the state government.

The largely languishing MDMP gained a fresh impetus after a Supreme Court Order dated 28 November 2001 that directed all state governments to introduce cooked mid day meals in primary schools within 6 months.

The status, as per the Annual Report of the Department of Education, 2001–2002 is that it is offering support to over 100 million children in the country. Gujarat, Kerala, Pondicherry and Tamil Nadu were providing cooked meals, 89 tribal blocks in Madhya Pradesh and 85 tribal blocks in Chattisgarh are also providing cooked meals. In Orissa, 8KBK and 74 non KBK blocks were providing cooked meals. Karnataka was providing cooked meals in 7 educationally backward districts. Ready to eat food was being provided in New Delhi and other states were providing food grains.

However, the picture is changing steadily as there has been continuous pressure by NGOs participating in right to food and right to health campaigns as well as the Commissioners appointed by the Supreme Court to oversee the implementation of its orders vis a vis food related schemes and services. Going by the most recent reports, Bihar and Uttar Pradesh remain the only two states where there has been no or negligible compliance with the Supreme Court order.
A recent survey (January – April 2003) conducted by the Centre for Equity Studies, New Delhi[10] shows a heartening situation in the three states studied, namely Chattisgarh, Rajasthan and Karnataka with much appreciation for the MDMP by the community at large.

[10] Mid-Day Meals Responsible for Leap in Female Enrolments in Primary Schools. Centre for Equity Studies, New Delhi.

Though the MDMP is known more as a significant educational and social intervention than one in the area of health, it completes the comprehensive 'school health' package in concept. (the reality is that abbreviated versions of school health services are piggy backing the MDMP rather than vice versa as many states add packages of iron, vitamin A and antihelminthics to it). Undoubtedly, the surety and comfort of a hot mid day meal at school contributes to the overall food security of our children and institutionalises another system to buffer children against starvation in acute situations of drought and famine. It needs to be promoted and nurtured as a routine service that should be available to all school going children.

Conclusion

It is clear that there is no lack of theoretical understanding of the role of preventative health and nutritional services for keeping children healthy. Nor is there any debate on the fact that this makes great sense in terms of economy and development. Nevertheless, services for children suffer from inadequate schematic implementation mechanisms, lack of funds, corruption and apathy.

In particular, the ICDS scheme which has great potential for improving the health of a vast number of children under the age of six years, needs universalisation, regularisation, better support in terms of funds and personnel, better convergence with other systems of health and education, decentralisation of programme and greater value and demand from the community.

The picture that comes through from the facts stated above confirms the general apathy and low priority that surrounds the rights of children. Where resources are stretched, the least vocal and least powerful people are the ones to be neglected most. However, there is a growing environment of strong articulation on behalf of children, both internationally and within the country. As basic minimum public services suffer the threat from privatisation, there is also a growing and strengthening public understanding of their role and requirement. Surely, this must and will lead to the simple, straightforward action of providing more and better comprehensive services for all our children.

Reproductive Health Services - The Transition From Policy Discourse to Implementation

Sama Team

Introduction

To discuss the current 'status of reproductive health services for women in India' it is imperative to locate it within the larger narrative of needs and issues that women confront on a regular basis. In this context, it bears pointing out that women are not a monolithic category. They live in very different economic, cultural and social circumstances. This fact has been completely ignored by the planners in India, which has resulted in the targeting of the underprivileged sections, particularly poor women being forced to undergo sterilisation and other family planning measures. When we focus on the present scenario of reproductive health services for women in India, we need to analyse the developments chronologically looking at different plans and policies of population control in India and also observe the shifts over time in ideology and approach. Reproductive health services no doubt are an essential part, but not the whole of the package of interventions and policies necessary for the promotion of women's reproductive health. This is because reproductive health is not purely about techno-centric strategies and neglect of general health problems. It is to some extent the articulation of the social and structural constraints that women confront. This paper tries to address the evolution of the concept of 'reproductive health' – providing a brief historical background of reproductive health services and its focus on population policies. Secondly, we discuss the issues that have been highlighted in the 'reproductive health' agenda while delineating the shifts in the family planning strategies. Furthermore, this paper touches upon the assessment and availability of the reproductive health services for women, with an analysis and critique of the reproductive health approach and also highlighting the major contentions and debates of the reproductive and child health (RCH) programme.

Unravelling the Historical Context

It is important to map the historical trajectory of the country's family planning programme (FPP) which clearly brings out the planners' obsession with demographic goals, especially with its continued focus on fertility control and on women as targets of services. The population field has undergone many changes, as lessons from experience have been incorporated into policy and action. No doubt, the ideological underpinnings of the visionaries or planners have undergone a reorientation in the past five decades, yet their approach remains techno-centric and top-down, subsequently thrusting their ideas and belief systems on the poor, particularly the women, whose voices and opinions are easily suppressed.

While interest in Malthusian and eugenicist ideas dated to the late nineteenth century, it was in the 1920s that discussions about population size and experiments in birth control and family planning began among Indian nationalists and colonialists. The earliest advocates of reproductive control in India were primarily male Indian and British bureaucrats, statisticians, social scientists, and other social reformers who had been influenced by the new theories. Crucial to these developments was the availability of new information from the censuses (which began in 1881) that gave analysts a better sense of

[*] Contributed by Dharashree Das with Manjeer Mukherjee and N.B.Sarojini.

the size and rate of increase of the population.[1] Advocates or the supporters of British rule lauded the benefits of birth control, arguing that the poor were the cause of their own poverty. Some Indian nationalists claimed that mass destitution was the result of colonial exploitation and had nothing to do with the rate of growth of the population. Many others saw birth control as a means to national regeneration through improved maternal and infant health and survival, which in turn would improve national health and the economy. Opponents of birth control came from a number of camps: those who associated birth control with immorality, which included Mahatma Gandhi, who also advocated sexual restraint to lower fertility; those who felt it conflicted with religious sanctions and was destructive of female purity; and finally, those who saw it as a threat to the political power of minorities.

Social and political activists, particularly the All India Women's Conference, joined the public discussion on fertility regulation in the early 1930s. Within the context of nation building they supported the use of contraception to improve female and infant health. They put greater emphasis on female health, particularly for the poor or working-class women, than did their male counterparts. However, their promotion of birth spacing for such women, rather than women's right to reproductive control, signalled their public investment in the hegemonic nationalist image of the Indian woman as mother. In fact, only a small minority of Indian women saw birth control as a means to greater female autonomy.

In this context, it is important therefore to highlight the differences in the nature of demands that women made in different parts of the world. In some of the Western countries, by the 1970s, the social and economic conditions had by and large improved. Women had begun to assert their rights over their bodies, to demand the right of abortion and the choice to be the sole decision-maker in the matter of having or not having a baby.[2] Whereas women's movements in the third world were linked with nationalist struggles against powerful political and economic forces. Women asserted their entitlement rights, and the right to equal wages and work. The birth control movement with its promotion of contraception, gained supporters in the west as women believed that it would enable them to have greater control of their lives. But this argument was seen as culturally problematic within the Indian context given the different needs and demands of women.

A Paradigm Shift

Since the late 1940s, the Indian state has been deeply involved in planning the nation's future, creating a certain vision or desire for an ordered society through its population policies, as a part of its development goals. In 1945 the Bengal Famine Inquiry Commission called for population control as an integral part of planned development. This was followed in 1946 with a recommendation from the Bhore Committee for the development of a population policy from a public health perspective. Finally, in 1949, the Family Planning Association of India was born out of sustained interest on the part of voluntary organisations and private advocates of birth control.[3] There was an emergence of neo-Malthusian concerns that too many people reproducing too rapidly retards economic growth, increases poverty and over stretches social services etc. As a consequence, the Indian State was the first in the world to initiate an official Family Planning Programme in 1952, commencing in

[1] Chatterjee, Nilanjana and Riley, Nancy E. (2001) 'Planning an Indian Modernity: The Gendered Politics of Fertility Control', Journal of Women in Culture and Society; Signs: vol.26, no.3, pp. 811-845.
[2] Qadeer, Imrana (1998) 'Reproductive Health: A Public Health Perspective', Economic and Political Weekly, 10th October, pp. 2675-2684.
[3] Chatterjee, Nilanjana and Riley, Nancy E. (2001) op cit

the first Five Year Plan with a 'clinic approach'. This 'clinic approach' was strongly influenced by the Planned Parenthood movement in the West.

Apparently, it was noticed that few people made use of the services of family planning clinics, thereby in the Second Five Year Plan a number of changes were introduced. Initially, the main objective of the Family Planning Programme was to improve women's health because it was perceived that the reasons for women's ill health were narrowly spaced pregnancies and births, expedited by marriage at a very early age. Reducing fertility through family planning services provided by the government was considered to be an offshoot of the process of securing women's health. Thereby, the first decade of the programme focused on providing education, marriage and child counselling, rather than medical intervention for birth control.[4] It is interesting to note that the government's effort in promoting fertility control has changed from decade to decade. It is only in the following year i.e., in the 1960s (due to the 1961 census that marked a significant rise in population growth rates) that the focus shifted from improving the health of women and children and was geared towards controlling the rise in population growth. Family planning centres were expanded and new depots set up for the distribution of contraceptives. The government's approach became method-specific – the sterilisation programme was intensified and intra-uterine contraceptive devices and condoms promoted .

Subsequently, in declaring that 'development is the best contraceptive', India called for a broad integrated approach to population control at the first United Nations World Population Conference in Bucharest in 1974. In this context, it is interesting to note that despite India's opposition to target oriented fertility control policy at the Bucharest conference, in 1976 the government declared the impracticality of 'waiting for education and economic development to bring about a drop in fertility'. The government's next resort was what it described as a 'frontal attack on the problem of population'.[5] This resulted in an emergency and in 1977 the Congress government fell, and one of the main charges levelled against it was the imposition of a coercive fertility control programme. As a result, attention was focused on female sterilisation, which formed an important component of the Sixth and Seventh Plan periods. Thereafter, the system of monetary incentives and the women-centric programme of sterilisation within the FPP in India came in for criticism.

Nevertheless, in the past five decades there has been a reorienting of strategy. The child survival movement and safe motherhood initiatives have resulted in the Indian FPP collaborating with other programmes. The vast network of sub-centres, primary health centres and community health centres also provides valuable health services for mothers and children inclusive of the family planning services.[6] Therefore, the FPP expanded its services to include— Maternal and Child Health (MCH) and Child Survival and Safe Motherhood (CSSM) programmes.

More recent initiatives are also in the pipeline, for instance, interventions and programmes for the prevention of HIV/AIDS and sexually transmitted infections (STIs). The challenge is to strengthen all these services by expanding their reach and improving their quality and to effectively integrate these services within the ongoing programmes.

---

[4] Rishyasringa, Bhanwar in Ramasubban, Radhika and Jejeebhoy, Shireen J., ed. (2000) 'Social Policy and Reproductive Health' in Women's Reproductive Health in India, Rawat Publications, Delhi.
[5] Chatterjee, Nilanjana and Riley, Nancy E. (2001) op cit
[6] Rishyasringa, Bhanwar in Ramasubban, Radhika and Jejeebhoy, Shireen J., ed. (2000) op cit

A Genealogical Sketch of the Concept of 'Reproductive Health' and its Transition to RCH

It is imperative to note that the 1980s saw the emergence of a new perspective on family planning. Furthermore, the Ministry of Health and Family Welfare proclaimed in a policy statement that 'compulsion in the area of family welfare must be ruled out for all times to come. Our approach is educational and wholly voluntary'.[7] Even the name of the programme was changed from that of 'family planning' to 'family welfare'. As a Family Welfare programme, it brought a fresh perspective by emphasising the importance of responsible or planned parenthood. It focussed on promoting change not only in attitudes about family size and planning but related issues such as age at marriage, dowry, son preference, and female foeticide. During the 1980s, the Indian State also reiterated its commitment to population control as an integrated part of general development.

In fact, the global women's movement had played a vital role in changing the course of the FPP. Women's groups' world-wide were critical of the over-emphasis on 'demographic goals' and the targeting of women solely as 'procreators' in FPP's. Applying the feminist principle, women activists argued that every woman has the right to control and enjoy her own sexuality, to regulate her fertility through access to information and services, to remain free of reproductive morbidity and to bear and raise healthy children.[8] As a consequence, the emphasis was to suggest changes in the existing family planning approaches to reallocate resources among different current programmes, to adopt the life-cycle approach in order to include women of all age groups, and to empower women to enjoy and manage their sexuality without the fear of unwanted pregnancies. Therefore, the impetus provided by the women's movement and the forceful voicing of concerns regarding women's health at the third decennial International Conference on Population and Development (ICPD) at Cairo in 1994 (see box), led to a paradigm shift in India's FPP. It moved from the existing numerical, method-specific target approach towards an approach of reproductive health care and women's rights and empowerment.

The ICPD Draft Programme of Action: The ICPD document defines reproductive health as physical, mental and social well being (not just the absence of disease), and the ability to exercise one's human sexuality without health risks. Sexual health is defined as the integration of physical, emotional, intellectual and social aspects of sexual being, and the objective of sexual health services should be to encourage personal relationships and individual development, not just treatment of reproductive health problems and sexually transmitted diseases.The document declares that sexual and reproductive rights include certain human rights that are already officially recognised: basic rights of individuals and couples to decide on the number and spacing of their children, and right to information and accessible services to that end; the right to respect for security of the person and physical integrity of the human body; and the right to non-discrimination and freedom from violence.

Source: (S. Correa, 1994: see chapter 2, 'Sexual and reproductive health and rights: the southern feminist approach', p.67).[9]

[7] Chatterjee, Nilanjana and Riley, Nancy E. (2001) op cit

[8] Social Assessment of Reproductive and Child Health Programme-A Study in 5 Indian States; Assam, Haryana, Maharashtra, Orissa and Uttaranchal (Part-I), coordinated by Shalini Bharat (Prof. and Head, Unit for Family Studies,Tiss) and supported by Ministry of Health and Family Welfare and DFID, New Delhi, Sept.2003

[9] Correa, Sonia (1994) 'Population and Reproductive Rights: Feminist Perspectives from the South' , Kali for Women publishers,New Delhi.

The concept based itself on the belief that it 'moves birth control out from under the umbrella of family planning and planned parenthood, with their patriarchal connotations, into the realm of individual rights to sexual and reproductive health'. Thus, reproductive health was posed as an ideal, a dream to move towards – but this necessarily requires us to come up with different strategies specific to the varying social contexts prevailing in different parts of the globe.[10] In this regard, what needs to be pointed out is the fact that our planners often fail to understand that there is a common thread linking reproductive health, general health and socio-economic conditions. And to our utmost surprise, the concept of reproductive health has failed to clearly articulate these inter-linkages.

However, reproductive health issues suddenly catapulted to centre-stage by the media and by international agencies when the ICPD Programme of Action focused centrally on these issues. At this historical juncture, it is important to state that the demand for reproductive rights and health did not originate in Cairo, and that it is not an original idea formulated by population control agencies or international agencies that have supported them.[11] The women's movements' definition of reproductive rights since its inception has included reproductive health as an integral part of it.

The definition of reproductive rights is essentially understood as the right of women to:

- regulate their own fertility safely and effectively, by conceiving when desired, terminating unwanted pregnancies, and carrying wanted pregnancies to term;
- bear and raise healthy children;
- remain free of disease, disability, fear, pain or death associated with reproduction (and the reproductive system) and sexuality.

Reproductive health is thus seen as a part of women's reproductive rights.

In addressing the needs of women and men, such an approach places an emphasis on developing programmes that enable clients to make informed choices; receive screening and education and counselling services for responsible and healthy sexuality; access services for preventing unwanted pregnancy, safe abortion, maternity care and child survival, and for the prevention and management of reproductive morbidity including reproductive tract infections (RTIs), sexually transmitted infections (STIs), and gynaecological problems.[12] But the problem lies in the fact that there exists a wide social and cultural gap that exists between the providers and users of services. Thereby, the user's perspective needs to be emphasised within the overall framework of the service delivery system and particularly that of women as they face a host of problems to access the health services. More important, the RH services must be integrated within the ongoing existing programmes.

'Package' of Reproductive Health Services

Two separate packages of reproductive health services – an essential package and an expanded package are discussed here. The services included in the essential package are recommended as a part of the government's programme. All these services are theoretically included in the national programme and are specified in the numerous

[10] Qadeer, Imrana (1998) 'Reproductive Health: A Public Health Perspective', Economic and Political Weekly,10th October, pp.2675-2684.

[11] Ravindran, Sundari T.K. (1998) 'Reclaiming the Reproductive Rights Agenda: A Feminist Perspective' in Reproductive Health in India's Primary Health Care, published by Centre of Social Medicine and Community Health, New Delhi.

[12] Pachauri, Saroj (1996) 'A Shift from Family Planning to Reproductive Health: New Challenges' in Population Policy and Reproductive Health (ed.) by K.Srinivasan, Hindustan Publishing Corporation (India), New Delhi.

policy and programme documents. However, there have been serious problems with regard to its implementation at various levels of the health delivery system. There exist major gaps between what is on paper and what is on the ground .[13] Even though the essential package is recommended, there are major constraints that impedes programme implementation such as —access to services, quality of care-included lack of equipment, supplies and skills with the service providers, supervision and support, and programme financing. These constraints must be given due importance, particularly in regions and states with weak infrastructural capacity if the essential package of reproductive health services is to be implemented.

It is also important to look at the expanded reproductive health services package, which at present has limited application. But it has been discussed for two reasons. Firstly, because it is imperative to plan for additional services, particularly for the most advanced states as well as for urban areas where it is possible to establish referral linkages with multiple health facilities that are operating in these areas. Secondly, we should look at the feasibility of implementing this package of services in a few selected areas within the more advanced states even today.

Table 1
Essential and Expanded Packages of Reproductive Health Services

Essential Reproductive Health Services Package	**Expanded Reproductive Health Services Package**
Prevention and management of unwanted pregnancy	Prevention and management of unwanted pregnancy
Services to promote safe motherhood	Services to promote safe motherhood
Services to promote child survival	Services to promote child survival
Nutritional services for vulnerable groups	Nutritional services for vulnerable groups
Prevention and treatment of reproductive tract infections and sexually transmitted infections	Prevention and treatment of reproductive tract infections and sexually transmitted infections
Reproductive health services for adolescents	Reproductive health services for adolescents
	Prevention and treatment of gynaecological problems including cervical cancer and infertility
	Screening and treatment of breast cancer
Health, sexuality and gender information, education and counselling	Health, sexuality and gender information, education and counselling
Establishment of effective referral systems	Establishment of effective referral systems

Source: Saroj Pachauri in K.Srinivasan ed., 1996.[14]

[13] Pachauri, Saroj (1996) op.cit.
[14] Ibid.

Reproductive health services are an essential part, but not the whole, of the package of interventions and policies necessary for the promotion of women's reproductive health.

Rhetoric and Reality

There exists a wide gulf between rhetoric and reality in the planners' vision of promoting the RH approach and the actual implementation of the RH services.

Reproductive Health Services

Population control programmes have been too narrowly focused on limiting population through the provision of family planning services. In India, the focus has been primarily to achieve demographic targets by increasing coverage with contraceptives with a focus on female sterilisation. Stressing only the family planning dimension of reproductive health and subsequently neglecting women's choices has failed both to improve the reproductive health situation substantially and to satisfy the unmet need for family planning. The current focus on reproductive health, including the shift in 1997 to the reproductive and child health programme, signifies the need to reorient programme strategies. The need is to centre more on a holistic reproductive health approach, informed client choices and women-based services – services that respond to clients' and especially women's health needs in ways that are sensitive to the socio-cultural constraints women and adolescent girls face in acquiring services and expressing health needs.[15] We also need to encourage male participation by ensuring that men take responsibility for family planning, and child rearing.

Following the Cairo conference, the Government of India set in motion a process to translate the ICPD Programme of Action within the national context. In November 1994, a joint mission of the Government of India and the World Bank was set up to undertake a sectoral review. In 1995, the World Bank submitted a report entitled 'India's Family Welfare Programme: Toward a Reproductive and Child Health Approach' to the Government of India. The government decided to adopt the policy and as a first step, removed method-specific contraceptive targets nation-wide. As part of India's commitment to the ICPD, the government launched the National Reproductive and Child Health programme in October 1997. The RCH programme was designed to be 'people-centred' and 'rights-oriented'. The thrust of the programme was on effecting changes both at the level of policy as well as at programme management and implementation levels.

The new approach encourages smaller families by helping clients meet their own health and family planning goals. Instead of birth control being the sole focus, it seeks to provide a full range of maternal and child health services.[16]

The Reproductive and Child Health Programme, lays emphasis on a comprehensive approach which includes a 'package' of services for the prevention and management of unwanted pregnancies; promotion of safe motherhood and child survival; nutritional services for vulnerable groups; services for the prevention and management of reproductive tract infections; and reproductive health services for adolescents.[17]

The magnitude of women's reproductive health problems in India is immense. The rates of mortality and morbidity related to pregnancy and childbirth continues to remain

[15] Ramasubban, Radhika and Jejeebhoy, Shireen J., ed. (2000) 'Introduction' in Women's Reproductive Health in India, Rawat Publications, Delhi.
[16] Rishyasringa, Bhanwar in Ramasubban, Radhika and Jejeebhoy, Shireen J., ed. (2000) 'Social Policy and Reproductive Health'...
[17] Maita, Kuhu (2001) 'Priority Actions for Safe Motherhood-Emerging Challenges', Health for the Millions, May-June, vol.27,no.3,pp.7-9.

high. This is primarily due to the inaccessibility of timely and quality emergency obstetric care for a majority of pregnant women in rural areasand lack of safe abortion care. India accounts for 19 per cent of all live births world-wide, and for as many as 27 per cent of all maternal deaths. It is essential to understand that women bear a disproportionate burden of reproductive health problems.

Services to Promote Safe Motherhood

Services for maternity care should be designed to ensure timely detection, management and referral of complications during pregnancy and delivery. Antenatal services should be strengthened – so as to detect complications and also offer information to women on nutrition, hygiene and immunisation etc. Post-partum services should be provided for both mother and child. More importantly, PHCs must be upgraded to provide facilities for delivery and also be able to handle other complications. But when we study the ground reality, the absence of certain basic services is quite conspicuous.

The two National Family Health Surveys (NFHS), carried out in 1992-1993 and in 1998-1999, found maternal mortality to be high (437 and 540 respectively). Moreover, complications during pregnancy are greater for adolescents (under age 16) and older women (over age 40).[18] In both NFHS-1 and NFHS-2, the rural MMR (Maternal Mortality Rate) is much higher than the urban MMR (434 compared with 385 in NFHS-1 and 619 compared with 267 in NFHS-2).[19] Moreover a majority of maternal deaths are preventable given that both knowledge and means of prevention are available. MMR for India is 408 per 1,00,000 live births and ranges between 29 in Gujarat, 76 in Tamil Nadu and 677 in Rajasthan. The table below provides the maternal mortality rate across states.

Table 2
Maternal Mortality Rate, Various States, India, 1997

State	Deaths per 1,00,000 live births
India	408
Low Human Development	
Bihar	451
Madhya Pradesh	498
Andhra Pradesh	154
Orissa	361
Rajasthan	677
West Bengal	264
Medium Human Development	
Gujarat	29
Karnataka	195
Maharashtra	135
Tamilnadu	76
Kerala	195

Source: Economic Survey 2000-01, India (cited in Jeyaranjan and Swaminathan, Hivos).[20] (Maternal mortality rate is defined as the number of maternal deaths to women age 15 to 49 per 1,00,000 live births).

What has to be seriously taken note of, is the fact that maternal deaths are not only an outcome of biological factors but of women's poverty, powerlessness, low social status and lack of control over resources, lack of access to health care, along with the poor quality of delivery system. Malnutrition, infection, early and repeated childbearing and high fertility also play an important role in poor maternal health conditions in India.

[18] Maita, Kuhu (2001) op.cit.

[19] NFHS II (National Family Health Survey-2) 1998-99, India, IIPS (International Institute for Population Sciences) Mumbai and ORC Macro, USA, 2000.

[20] Jeyaranjan, J. and Swaminathan, Padmini 'Understanding Persistent Poverty in India' by Hivos (Humanist Institute for Co-operation with Developing Countries, Netherlands.

The high level of mortality during childbirth or soon after childbirth indicates the inadequacy of facilities available for antenatal care and deliveries across the country. The NFHS confirms that few women have access to adequate antenatal care. The table below provides us with empirical evidence that substantiates our argument.

We can see that the antenatal visits are generally infrequent and occur late in pregnancy. There are substantial differences in the number of antenatal check-ups by residence. The median number of check-ups is higher in urban areas (4.2) than in rural areas (2.5). The number of antenatal check-ups and the timing of the first check-up are important for the health of the mother and the outcome of the pregnancy (NFHS-2).

Women's lack of autonomy in decision-making, their limited physical access to facilities and the poor quality of services and care they receive at facilities are major obstacles to timely health care. Moreover, access is related to a woman's social status,

Table 3
Number and Timing of Antenatal Check-ups and Stage of Pregnancy

Per cent distribution of births during the three years preceding the survey by number of antenatal check-ups and by the stage of pregnancy at the time of the first check-up, according to residence, India, 1998-99

Number and timing of check ups	**Urban**	**Rural**	**Total**
Number of antenatal check -ups			
0	13.6	39.8	34.0
1	6.0	8.8	8.2
2	10.5	14.1	13.3
3	14.5	14.2	14.3
4+	54.7	22.4	29.5
Don't know/missing	0.7	0.8	0.7
Total percent	100.0	100.0	100.0
Median number of check-ups (for those who received at least one antenatal check-up)	4.2	2.5	2.8
Stage of pregnancy at the time of the first antenatal check-up)			
No antenatal check-up	13.6	39.8	34.0
First trimester	55.1	26.6	33.0
Second trimester	24.2	25.5	25.2
Third trimester	6.9	7.6	7.4
Don't know/missing	0.2	0.4	0.4
Total percent	100.0	100.0	100.0
Median months pregnant at first antenatal check-up (for those who received at least one antenatal check-up)	3.0	3.9	3,5
Number of births	7,191	25,202	32,393

Note: Table includes only the two most recent births during the three years preceding the survey.
Source: NFHS II (1998-99)

as determined by her level of education, income and decision-making power within the family. Even when health services are available, women may not be able to utilise them due to various socio-cultural constraints, which pervade many societies. The table below explains the reasons why women do not often receive antenatal- check up, both in urban and rural areas.

It shows Per cent distribution of births during the three years preceding the survey to mothers who did not receive an antenatal check-up by main reason for not receiving an antenatal check-up, according to residence, India, 1998-99

The table shows the per cent distribution of births in the three years preceding the survey where mothers did not receive any antenatal check-ups in a health facility or at home by the main reason for not receiving check-ups. For almost three-quarters of the births to mothers who did not have any antenatal check-ups, mothers did not consider having a check-up to be necessary (60 per cent) or customary (4 per cent) or were not allowed by their families to have one (9 per cent). High costs account for another 15 per cent of cases and lack of knowledge, distance, and lack of transport are other reasons (NFHS-2).

In India, due to several socio-cultural practices followed in the community, the majority of births, even now, occur at home. Only 33 per cent of deliveries take place in health facilities. Among deliveries at home, a traditional birth attendant attends to 50 per cent of them, while a health professional attends to less than one in every eight.

It is also an established fact that most deaths occur in the early postnatal period and traditional practices prohibit newly delivered women and their babies from leaving the house for the first 40 days after delivery. For example, reports suggest that up to 60 per cent of all maternal and neonatal deaths occur within five days of delivery and only one in eight cases occurred after 15 days or more .[21] Yet health workers visit only about one-third of the newly delivered women in the first week

Table 4
Reason for not receiving an antenatal check-up

Reason for not receivingAntenatal check-up	Urban	Rural	Total
Not necessary	63.4	59.1	59.5
Not customary	3.8	4.3	4.3
Costs too much	11.3	15.0	14.7
Too far/no transport	0.9	3.9	3.7
Poor Quality Service	1.6	0.8	0.8
No time to go	2.6	1.7	1.8
Family did not allow	11.3	8.2	8.5
Lack of knowledge	3.2	4.2	4.1
No health worker visited	0.2	1.6	1.5
Other	1.7s	1.1	1.2
Total percent	100.0	100.0	100.0
Number of births	978	10,040	11,018

Note: Table includes only the two most recent births during the three years preceding the survey.
Source: NFHS II (1998-99)

[21] Maita, Kuhu (2001) op.cit.

after delivery. The NFHS-2 also indicated that only 17 per cent of non-institutional births were followed by a check-up within two months of the delivery. These findings clearly indicate that pregnancy- related illnesses take a heavy toll on women's lives during the postpartum period. In this context, it is worth mentioning that a recent study on factors contributing to maternal death in Andhra Pradesh, Madhya Pradesh and Orissa revealed that out of the 170 maternal death cases investigated, 106 deaths had occurred during the postpartum period. The commonest form of complication was fever and bleeding.

Establishment of effective referral systems

The referral systems are of paramount significance, as these are vital for implementing all the mentioned essential packages of reproductive health services. For this we have to establish linkages at the community level. In this regard decentralised participatory planning is required for implementing basic health services in the remotest areas. This would also be of importance in saving women's lives during any obstetric emergencies, etc.

There are many reasons why women are unable to access health care facilities, even in times of emergency. To begin with, health services may not be available at a convenient time and place. The table here gives us an account of the outreach of our health service system.

The above table summarises the findings on distance from a health facility. The unit of analysis is ever-married women age 15-49 who reside in rural areas. 13 per cent of rural women live in a village with a Primary Health Centre, 33 per cent live in a village with Sub-Centre, and 37 per cent live in a village with other facilities are 10 per cent for hospitals and 28 per cent for dispensaries or clinics. Nearly half of women (47 per cent) live in a village that has some kind of health facility. Median distances from particular health facilities are 4.9 km for a Primary Health Centre, 1.3 km for a Sub-Centre, 6.7 km for a hospital, and 2.4 km for a dispensary or a

Table *5*
Distance from the Nearest Health Facility

Percentage distribution of ever-married rural women age 15-49 by distance from the nearest health facility, India 1998-99

Distance	Health Facility PHC	Sub-centre	Either Sub-centre	Hospital PHC or	Dispensary / Clinic	Any health facility
Within village	13.1	33.0	36.5	9.7	28.3	47.4
<5 Km	28.4	39.7	40.8	25.0	32.4	38.9
5-9Km	29.2	16.3	15.3	25.1	17.4	9.7
10+Km	28.8	9.6	7.0	40.0	21.7	3.9
Don't know/ missing	0.5	1.4	0.3	0.2	0.2	0.2
Total %	100.0	100.0	100.0	100.0	100.0	100.0
Median distance	4.9	1.3	1.0	6.7	2.4	0.0

Note: the category '< 5 km' excludes cases where the facility is within the village cases and cases with a facility less than 1 km. from the village are assigned a distance of zero.
Source: NFHS II (National Family Health Survey-2) 1998-99, India, IIPS (International Institute for Population Sciences) Mumbai and ORC Macro, USA, 2000.

clinic. 14 per cent of rural women need to travel at least five kilometres to reach the nearest health facility.

The other key findings of NFHS-2 with regard to reproductive health care, are as follows:

- 99 per cent of currently married women know of at least one modern method of contraception, but only 48 per cent use a contraceptive method;
- mothers of only 20 per cent of live births received all the required components of antenatal care.

Prevention and Management of Unwanted Pregnancy

The family planning programme has relied heavily on female sterilisation. In this case, the service providers should be sensitive to client preferences and choices of contraceptives. They must also ensure that contraceptives are delivered safely and there should be proper follow-up and counselling services.

In this context it is relevant to note the prevailing data. As the NFHS-II reveals that almost 16 per cent of currently married women in India have an unmet need for family planning. Based on the population of around 1027 million, this indicates approximately 40 million women with an unmet need for contraception. The unmet need for family planning includes the unmet need for spacing and the unmet need for limiting births. In India the unmet need for spacing births is the same as the unmet need for limiting the births (8 per cent). If all the women who say that they want to space or limit future births were to use family planning the contraceptive prevalence rate would increase to 64 per cent of currently married women. This indicates that 75 per cent of the total demand for family planning is being met. However, only 30 per cent of the demand for spacing is being met.[22] In fact, the unmet need is highest among the youngest women and women with only one child, who also have the highest unmet need for spacing. There are huge differences in the unmet need by States. The unmet need varies from less than 10 per cent in Punjab, Haryana, and Andhra Pradesh to 25 per cent in the larger States of Uttar Pradesh and Bihar to more than 30 per cent in small Northeastern States of Nagaland and Meghalaya .

At this juncture, it is important to note that the knowledge about contraception is nearly universal in India i.e., around 99 per cent of currently married women know at least one modern method of contraception. Female sterilisation is the most widely known method (98 per cent) followed by male sterilisation (89 per cent). Knowledge of the officially sponsored spacing methods i.e. pill (80 per cent), condoms and intra-uterine devices (IUDs) (71 per cent each), however is less widespread. Nonetheless, there has been an increase by about 10-13 percentage points in the knowledge of temporary methods since NFHS-1. However, the knowledge of temporary methods is much lower in rural areas than in urban areas. Across states the knowledge of temporary methods is particularly low in Andhra Pradesh, Madhya Pradesh, and Orissa. In spite of the increase in the knowledge, the use of modern temporary methods increased only from 6 per cent in NFHS-1 to 7 per cent in NFHS-2.

The situation appears to be worse in case of abortions, as the need for MTP (Medical Termination of Pregnancy) services is exploited, and illegal abortions are rampant, invariably using crude methods to induce abortions in the most unhygienic settings. India was one of the first countries to pass a law – Medical Termination of Pregnancy Act (MTP Act) in 1971, which was implemented in the country in 1972. Despite the fact that the MTP Act has been implemented, data on the magnitude and the patterns of induced

[22] Gupta, K. (2001) 'Fertility and Contraceptive Prevalence in India-Glimpses from NFHS-II', Health for the Millions, May-June, vol.27, no.3, pp.13-15.

abortion in India remain incomplete. There is considerable inter-study variation in estimates of the abortion ratio. While rates based on government statistics and large scale surveys using fewer probing questions suggest a ratio of 1.3-2.1, national estimates based on various sources and assumptions arrive at figure of 18 and 45.[23] Small-scale community-based studies however suggest rates somewhere in between. One of the most thorough investigations of abortion in rural India indicates 14 induced abortions per 100 live births. However, today a majority of the abortions are carried out illegally which has lead to increased maternal morbidity and mortality in our country. A large number (13%- AAP-I data) of abortions occur after the detection of a female foetus. Abortions following sex-determination are necessarily delayed into second trimester and often beyond the legal limit of 20 weeks placing women at huge health risks . Also according to the Sample Registration Survey, 1998, 8.9 per cent of all maternal deaths are due to unsafe abortions (9,000 to 10,000 maternal deaths per year) and many more women are impaired permanently by complications.[24]

Prevention and Treatment of Reproductive Tract Infections Including Sexually Transmitted Infectionsand Other Gynaecological Problems.

There is another dimension of reproductive ill health among women – one that is endured silently or considered a normal part of womanhood. These are RTIs and other gynaecological morbidities, and include a range of conditions such as menstrual problems, white discharge, infertility, cancers, prolapse and problems of intercourse. Several community and hospital-based studies conducted in the country during the last decade indicate that approximately 26 to 77 per cent of women were clinically observed to be suffering from one or more gynaecological morbidities. The proportion of women reporting for vaginal discharge ranged from 13 to 68 per cent .[25] Studies in India have documented the high prevalence of RTIs including sexually transmitted infections among women at a community level. Seminal work by Bang et al (1989)[26] in rural Maharashtra, showed that in a sample of 650 women from 2 villages, 92 per cent of all women examined had at least one or more gynaecological or sexual disease.

It is imperative to state that frequent pregnancies, abortions and unclean cervical procedures increase the risk of infection. Untrained personnel, who can not ensure clean delivery practices, often attend to a majority of births. As per the NFHS-2, trained personnel attended only 42 per cent of births during the three-year period preceding the survey . Consequently, poverty, gender inequalities and cultural norms, and the interaction between these factors are critical to understand the dynamics of gynaecological morbidity among women. High prevalence of RTIs indicates serious gender imbalances. Gender-based inequalities influence women's vulnerability to infections i.e. in most of the cases women are not able to control their husband's sexual activities or negotiate with their husband for protection from STDs.[27] More important, contraceptive use (IUDs and tubectomy) has been shown to be associated

[23] Ramasubban, Radhika and Jejeebhoy, Shireen J., ed. (2000) 'Introduction' in Women's Reproductive Health in India, Rawat Publications, Delhi.

[24] Vishwanath, Sneh and Tiwari, Sudha (2001) 'Manual Vacuum Aspiration -An Option for making early abortion safe', Health for the Millions, May-June, vol.27, no.3, pp.36-37.

[25] Agarwal, D. (2001) 'Reproductive Tract Infections -Challenges and Responses' Health for the Millions, May-June, vol.27, no.3, pp.21-23.

[26] Bang, R, Bang ,A. Baitule, M, Chaudhury, Y.,Sarmukaddam, S, and Tale, O.1989, High Prevalence of Gynaecological Diseases in Rural Indian Women.Lancet, 8629: 85-88

[27] Ooman, Nandini in Ramasubban, Radhika and Jejeebhoy, Shireen J., ed. (2000) 'A Decade of Research on Reproductive Tract Infections and Other Gynaecological Morbidity in India: What We Know and What We Don't know' in Women's Reproductive Health in India, Rawat Publications, Delhi.

with RTIs. IUDs, for instance, are believed to facilitate the ascent of pathogens into the upper tract causing RTIs. Some studies have also found that women mention that 'Copper-T', a common term in India for IUDs, as a possible reason for menstrual problems and RTIs .

Besides the above cited issues regarding the rhetoric and reality surrounding reproductive services, there are also other factors like the burden of household work which also includes the task of child caring and rearing, that results in high morbidity and mortality among women. Other basic issues of livelihood like inadequacies of food, shelter, provision of water and proper sanitation facilities have led women to become susceptible to a host of diseases. Not to deny the constraints of class, caste and gender and issues of entitlement, employment and educational status of women that further creates unequal power relations and oppresses women.

Assessment of Reproductive and Child Health Services/Current Scenario and Status of RCH Services

In its first phase (1997-2002) the objective of the RCH programme was to benefit poor rural women between the ages 15-49 and children below 5 years by improving their health condition and accessibility to services. The programme also aimed to provide user-friendly services to couples to enable them to space or limit births according to their needs. In more specific terms the programme was redesigned to include district level planning and monitoring to enhance responsiveness to local needs, increased client focus and improved quality care, decentralisation and local ownership and improved referral system for health care seekers. At the level of service delivery the programme aimed to revitalise the existing network of rural health functionaries through better supplies of drugs and equipment, training and better IEC.[28]

This first phase of the RCH programme has ended and the government has entered the next phase wherein the focus is 'on promoting state ownership and provision of RCH services in a cohesive manner in partnership with all stakeholders' . In order that the design and development process of RCH II be informed by the previous phase, the MOH&FW proposed an assessment of RCH I from the perspective of its accessibility and responsiveness to different beneficiary groups, particularly the poor and the marginalised; their participation in planning, implementation and monitoring; the capacity of the public sector to deliver quality services and the viability of public-private partnership. In this regard, a 5-state (Assam, Haryana, Maharashtra, Orissa and Uttaranchal) social assessment of RCH I has been carried out to draw up policy and programmatic recommendations, which we have briefly discussed in the following section.

The major objective of this study has been to analyse the RCH policy and programme from a human rights and gender based perspective and to undertake a qualitative assessment of RCH programme beneficiaries and a stakeholder analysis to identify issues related to access and of equity of health services.

By design all the sites, with the exception of Mumbai, were chosen to represent states with poorer performance on family planning indicators namely, number of births, couple protection rate etc. The indices range from a low of 13.87 to a high of 94.90. Among the study locations Gurgaon district in Haryana has the lowest ranking with composite index value of less than 40. In other words, the district has lower ANC coverage, poorer couple protection, lesser child immunisation rate, more than 3 birth orders, adverse female to male child sex ratio, low female literacy and comparatively higher non-institutional child deliveries. The other districts, except for

[28] Social Assessment of Reproductive and Child Health Programme-A Study in 5 Indian States; Assam, Haryana, Maharashtra, Orissa and Uttaranchal (Part-I), coordinated by Shalini Bharat.

Mumbai, have indices between 40 and 60, which is still in the low-average category. Mumbai on the other hand has a higher performance rating compared to all other study locations.

This study in a nutshell provides us the existing ground realities and certain facts from the field that helps us identify the various constraints experienced by vulnerable groups in accessing the health care services. One of the objectives of this study was also to assess the capacity and constraints of government field workers and other staff to deliver RCH services to the marginalised and the socially disadvantaged groups.

At all the study sites it was recognised that non-availability of health services during timings suitable to the slum beneficiaries kept away most of the potential users from availing the services. Class and caste dimensions are perceived as interfering with service delivery in the communities. In Haryana and Assam, beneficiaries claimed that ANMs visited the homes of only the rich and the upper caste groups. There is also the feeling that the poor are not attended to because they are 'poorly dressed' and lack sophistication. Reports from Osmanabad support these observations where health providers did not touch patients who dressed shabbily and appeared dirty. Widely reported cases of abuse (both physical and verbal), by hospital service users across communities have contributed to a very poor image of government health facilities among slum residents. There is widespread feeling among the poor and the socially disadvantaged that they are subjected to abusive treatment because of their poverty and low social and educational status. Motivation to use government health facilities is severely affected, as a result, and the poor use it only as the last option. In fact it is interesting to point out, that there is inadequate coverage of the children and female members of migrant and other mobile populations for immunisation and other health services. The unresponsiveness of the health system to problems of mobile populations, compromises their fundamental right to health and health services.

It was seen that treatment of gynaecological morbidities among women continued to receive low priority from healthcare providers. Counselling and referral services received still lower priority. Ill-health due to untreated side-effects of contraceptives and post-delivery complications continue to burden women, raising questions about the seriousness of the government health services to move away from fertility focused agenda towards improving the reproductive health of women. The inability of the program in involving men in the responsible use of contraception methods and in ensuring women's reproductive health brings the gender dimension of the RCH program to sharp focus and subsequently points to the urgent need of balancing the gender equation in it. Insufficient emphasis on involving men in RCH means a heavy burden on women for planning families and essentially renders the RCH programme 'women-centric'. In all the study locations, men perceived the RCH programme to be women and child focused reinforcing their view that family planning is all about women taking the major responsibility. It has also been assessed that adolescent health is completely neglected and is seen to be 'culturally outside the purview of the RCH program'. Certain observations have revealed the loopholes and the inadequacies of the RCH approach in reaching out to 'unmarried' adolescents. In fact, the RCH programme works with the notion that marriage alone brings adolescents under the fold of reproductive health services. Consequently, the needs of those not married go unrecognised and unaddressed.

The RCH programme is now being implemented based on an incremental approach. The National Population Policy, 2000 (NPP 2000), affirms the commitment of Government of India to the philosophy of RCH and provides a policy framework for

prioritising strategies to meet the RCH needs of the people and to achieve 'replacement level fertility by 2010 AD'.

In accordance to the ongoing approach, i.e. the Reproductive and Child health (RCH) approach implemented after ICPD 1994, it should be noted that the programme has switched over to being 'Target Free in 1996', and the Government of India since then is in the process of integrating various existing vertical programmes and incorporating various new services like management of Reproductive Tract Infections (RTIs) and Sexually Transmitted Infections (STIs) into primary health care. Thus the age-old target based system for family planning was dispensed with resulting in a paradigm shift in the entire approach. The relevant programme of actions of ICPD, 1994, states 'reproductive health program must make significant efforts to improve quality of care'.[29]

Looking at the present ground reality, it is ironical to state that the year 1996-97 was the landmark year of change in regard to the concept of quality of care in India. At the same time in 1996-97 the government at the centre and all the state governments were to introduce an absolutely new system called 'decentralised participatory planning' for implementing the RCH programme. In fact, the most important feature in RCH is that an innovative assessment programme was undertaken as a World Bank project to assess simultaneously

- the perception of the clients about RCH services,
- to assess the quality of services that the clients are supposed to receive from the service deliveries under the RCH programme and
- to assess the availability of the service facilities in various health centres.

Unfortunately since most of the state governments could not start implementing RCH programme even in the third year 1998-99, the assessment programme undertaken through the machinery of large scale objective sample surveys called 'Rapid Household Surveys' (RHS) at district level did somehow 'misfire' without achieving the original objective of evaluation. Stated below are the indicators of the RCH survey of (1998-99):

Essential Indicators (Percentage) on RCH Care Include (as in 1998-99):

- Percentage of illiterate women in Rep. Age group: 56.1
- Percentage of women with knowledge of modern methods of FP : 57.8
- ANC –at least 3 visits: 44.2
- Delivery at health institutes: 34.0
- Safe delivery: 40.2
- Children with birth weight below 2500 gm: 16.9
- Fully immunised children: 54.2
- Women with pre-natal complications: 41.3
- Symptom of RTI/STI: 29.7
- Males with symptom of RTI/STI: 12.3
- Awareness of women on HIV/AIDS: 41.9
- Awareness of males in 20-5 on HIV/AIDS: 60.3

Concluding Observations

Despite the guidelines of the RCH programme and the existing reproductive health services, there are certain issues that have been completely neglected and ignored by the experts. Women are unable to seek care for problems that are not related to pregnancy and other gynaecological complications. For instance there are no services for occupational health problems, domestic violence or abuse and mental health. In addition to this, the policies deny a commitment to respond to women's health needs throughout their life cycle and to go beyond the constricted

[29] Saha, P.K., (2004)-Paper presented on Quality of Reproductive and Child Health Care in India: Assessing the Status on 4th March, in Centre of Social Medicine and Community Health, JNU, New Delhi.

conceptualisation of their reproductive roles focussing concern only with childbearing. The policy often overlooks the fact that reproductive morbidity refers to health problems related to reproductive organs and functions, including and outside of childbearing. It covers both gynaecological and obstetric morbidity as well as related morbidity, such as urinary tract infections, anaemia, high blood pressure and obesity..

Thereby the policies and programmes provide a fractured solution. The point that needs to be reiterated is that there should be a proper primary health care system with proper referral systems for women, men and children. It would be counterproductive to have reproductive health as yet another vertical programme. Reproductive health services must be integrated within the strengthened primary health care system. It is an undeniable fact that reproductive health constitutes an important aspect of women's health. However, the challenge is to define priorities within it according to the objective and subjective definitions of women's needs, and to make it a part of a larger developmental programme, based on equity of distribution and also on access and control of productive resources. If the current image has to be overthrown then policies for health must be linked with adequate social policies for all underprivileged sections. The ongoing programme must be completely integrated with basic comprehensive services and priorities of people must be taken into account. Above all, people's felt and expressed needs must be first considered, and not the State's imperative for fertility control.

These issues explain that although reproductive health problems, per se, are rooted in the biomedical sphere, their origins often lie in human behaviour that is embedded in social and culturally constructed patterns of gender relations. The need of the hour for the policy makers is to prioritise and shape programmes and policies accordingly, that can make the concept a reality. Clearly, the answer to reproductive health and rights lies in developing a holistic perspective. This involves fundamental changes in power dynamics through greater opportunities. This is because reproductive health and rights are not issues that can be solved within the confines of population and health policies as they themselves are subject to the vicissitudes of changing paradigms and ideologies. While emanating from the dominant ideology, they tend to fall short of grasping intersectoral linkages that would create enabling circumstances to achieve any degree of success, not only in medicine and technological interventions alone but, also in addressing the socio-economic context and gender inequality that impinges upon reproductive and sexual health issues.

Gender-based Violence and the Role of the Public Health System

Padma Deosthali and Purnima Manghnani

Introduction—Violence as a Public Health Issue

Violence is widely recognised as a global public health concern. Research indicates that violence – in the form of war, conflict situations, homicide, suicide, domestic violence, maltreatment, and communal violence – is widespread and leads to significant adverse health and social consequences for victims and their communities.[1] For the purposes of this paper, we are employing the World Health Organization's (WHO) definition of violence: "The intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation".

Violence often occurs when there is an imbalance of power between individuals or groups of people or nations. Due to inherent social inequalities and hierarchies in society with regard to sex, religion, race/ethnicity, sexual orientation, class, caste, and nation status, violence prevails. Indian society is deeply hierarchical and organised according to structural inequalities. Gender-based violence, torture, and caste and communal violence are a few of the predominant manifestations of these hierarchies and inequalities, and demand serious attention and intervention by the Indian public health care system. Gender-based violence is unmistakably linked to the systematic discrimination against females and societal norms that devalue women.[2] While any analysis of gender-based violence is incomplete without accounting for social inequity due to gender, it cannot alone account for the occurrence of such violence. Other factors—personal, situational, and socio-cultural must also be taken into account.[3]

In this paper, gender-based violence is presented primarily within the public health framework. It should be noted, however, that the authors recognise violence against women as a fundamental violation of human rights and a crime against women and society. The authors adhere strongly to the belief that all people have the right to live a life free of violence and that governments around the world are compelled to protect their citizens from such abuse. All citizens also have the right to bias-free, affordable and accessible legal, social and health care services that can help to mitigate the negative consequences of the inflicted violence.

Within the public health framework, violence is conceptualised as a problem that can be prevented and its consequences alleviated through social and health based interventions. Public health strategies can function at various levels in responding to violence – at the individual, community, and societal levels. As victims and survivors of violence approach the health care system for relief of the resulting physical and

---

[1] Mercy JA, Krug EG, Dahlberg LL, and Zwi AB. 2003. "Violence and Health: The United States in a Global Perspective." *American Journal of Public Health*, 93 (2): 256—261

[2] United Nations Development Fund for Women (UNIFEM). 2003. *Not A Minute More: Ending Violence Against Women*. Accessible via the Worldwide Web at: www.unifem.org

[3] Heise, Lori L. 1998. "Violence Against Women: An Integrated, Ecological Framework." *Violence Against Women, The Hidden Health Burden*. The World Bank: Washington, D.C., 1994.

psychological trauma, health care professionals play an important role in the treatment of such injury, rehabilitation of victims, and prevention of further trauma (secondary and tertiary levels of care). With regard to prevention – or primary level care – community-based public health interventions can be instrumental in changing social norms, creating social pressures against violent behaviour, and educating the public about the health, social, and legal consequences of violence. While the public health system is recognised as one of the most critical sites for addressing violence, it currently lacks the capacity and sensitivity to adequately and effectively respond to the needs of victims and survivors.

This paper focuses on the nature and types of gender-based violence, the health consequences of such violence, and the current limitations of the public health system in responding to victims of gender-based violence. The paper also presents a public health model for responding specifically to victims of domestic violence – at the primary, secondary, and tertiary levels – and presents the Dilaasa Crisis Centre for Women at K.B. Bhabha Hospital in Mumbai, India, as a case study of one of many efforts to address violence against women.

Gender-based Violence

Gender-based violence refers to violence experienced by females throughout the various stages of their life. Such violence is rooted in social inequality between males and females – an outcome of the females' lack of access to social, health, educational, and political privilege. In her paper promoting an integrated and multi-leveled framework for explicating the causes of violence against women, Heise [4] argues that previous theories focused almost entirely on either individual factors or socio-structural factors. She propounds that a complete understanding of violence against women must incorporate factors at multiple levels which have been deemed significant by the current body of research at the –

- *individual* level (witnessing marital violence as a child; being abused during childhood; growing up with an absent or rejecting father),
- *microsystem* or situation in which the abuse takes place (male dominance in the family; male control of wealth in the family; marital conflict; use of alcohol),
- *exosystem* or informal/formal social structures (unemployment among men; low socioeconomic status of family; social isolation of women and their families; associations with negative or sexually aggressive peers), and the
- *macrosystem* or the larger set of social and cultural beliefs and norms that influence the other levels in this framework (cultural definitions of masculinity linked to dominance, toughness, or male honour; rigid gender roles; men's sense of ownership or entitlement over women; approval of physical punishment of women; cultural belief that condones the use of physical violence as a means of to resolve interpersonal conflicts)(Ibid.).

While *violence against women* and *gender-based violence* are used interchangeably, the term *violence against women* is limited to acts of violence and abuse directed against adult females. In 1993, when the United Nations adopted the Declaration on the Elimination of Violence Against Women, the General Assembly defined violence against women as: "Any act of gender-based violence that results in or is likely to result in, physical, sexual or psychological harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or private life" (Economic and Social Council, 1992). Gender-based violence is defined elsewhere as: "Any act of verbal or physical force, coercion or life-threatening deprivation, directed at an

[4] a)Heise L, Raikes A, Watts CH, and Zwi AB. 1994. "Violence Against Women: A Neglected Public Health Issue in Less Developed Countries." *Soc Sci Med*, 39 (9): 1165—1179.

Table 1
Gender-based Violence Throughout the Life Cycle

Life Phase	Types of Violence	
Pre-birth	• Sex selective abortion • Abuse of women during pregnancy (emotional & physical impact on woman; impact on birth outcome) • Unequal access to food and health care	
Infancy	• Female infanticide • Physical, sexual, & psychological abuse	• Unequal access to food & health care
Childhood	• Forced child marriage • Female genital mutilation • Physical, sexual, & psychological abuse	• Incest • Child prostitution • Unequal access to food, health care, & education
Adolescence	• Dating and courtship violence • Sexual coercion • Unequal access to food, health care, & education • Psychological, physical, sexual abuse by family members	• Sexual assault and rape • Forced prostitution • Traffickingv Incest • Sexual violence in the workplace • Partner homicide
Child-bearing Years	• Domestic violence (social isolation; physical, psychological, sexual, & economic abuse by family member/s) • Rape (including marital rape) • Dowry demands; Dowry-related homicide • Partner homicide	• Forced abortions/forced pregnancies • Sexual violence in the workplace • Unequal access to food and health care • Forced prostitution and pornography (sexual exploitation)
Old Age	• Physical, sexual, and psychological abuse by family members and/or other caretakers • Neglect and maltreatment by family members and/or other caretakers • Forced suicide or homicide of widows • Unequal access to food and health care	

individual woman or girl that causes physical or psychological harm, humiliation or arbitrary deprivation of liberty and that perpetuates female subordination".[5]

Gender-based violence manifests itself in many forms: sex-selective abortion, incest, trafficking, marital rape and other forms of sexual assault, sexual harassment in the workplace, forced suicide, dowry-related homicide, and various forms of physical and emotional abuse perpetrated by intimate partners. While uniform global and national prevalence rates of gender-based violence do not exist due to differences in the definition of violence and research methodologies, research studies conducted both internationally and within India indicate that the abuse is widespread and grossly underreported.[6] What follows is a chart summarising the various types of violence to which females are vulnerable throughout their life cycle (adapted from Heise et al., 1994)[7]

Health Consequences of Gender-based Violence

Gender-based violence has severe consequences for the physical, emotional, and social well being of women victims and survivors. Research demonstrates that this violence impacts women's health in myriad ways – both directly and indirectly – and can lead to chronic debilitating conditions and even death.

The most severe health consequence of gender-based violence perpetrated by intimate partners and family members is homicide.[8] In the United States, domestic violence accounts for more than one-half of the homicides of women each year.[9] This body of research also indicates that the majority of murdered adult women are killed by their husband, partner, ex-husband, or ex-partner and in the majority of murder cases, the woman was battered when she was alive.[10]

It should be emphasised that the relationship between gender-based violence and health is not unidirectional; violence produces negative health effects while certain health conditions can increase a woman's vulnerability to victimisation. For example, pregnancy increases a woman's risk of being battered. Additionally, some studies indicate that women who have been battered during pregnancy are at an increased risk of being killed or of killing—in self-defence—their abuser.[11]

Physical health consequences directly linked to intimate partner violence include broken bones, facial trauma (such as fractured mandibles), tendon or ligament injuries, chronic headaches (a likely result of neurological damage from the untreated loss of consciousness often reported by battered women), undiagnosed hearing, vision and

---

[5] a)Heise L, Raikes A, Watts CH, and Zwi AB. 1994. "Violence Against Women: A Neglected Public Health Issue in Less Developed Countries." *Soc Sci Med,* 39 (9): 1165—1179.
b) Heise L, Germaine A, and Pitanguy J. *Violence Against Women: The Hidden Health Burden*. The World Bank: Washington, D.C., 1994.

[6] Ellsberg M, Heise L, and Shrader E. *Researching Violence Against Women: A Practical Guide for Researchers and Advocates*. Center for Health & Gender Equity and the World Health Organization, 1999; Jesani, Amar. 2002. "Violence Against Women: Health Issues Review of Selected Indian Works." *Samyukta: A Journal of Women's Studies*, 2 (2): 57—73

[7] See footnote 4.

[8] Campbell J, Lewandowski L. 1997. "Mental and Physical Health Effects of Intimate Partner Violence on Women and Children." *Anger, Aggression, and Violence (The Psychiatric Clinics of North America),* 20 (2): 353—374.

[9] Fagan J, Browne A. 1994. "Violence Between Spouses and Intimates: Physical Aggression Between Women and Men in Intimate Relationships." *Understanding and Preventing Violence*, Volume 3: Social Influences. Washington, D.C., National Academy Press.

[10] Ibid.

[11] Wilson M, Daly M. 1993. "Spousal Homicide Risk and Estrangement." *Violence and Victims*, 8: 316.

concentration problems (also possible due to neurological damage from injuries sustained), chronic irritable bowel syndrome, and other stress-related problems.[12] Abuse during pregnancy can lead to low birth weight outcomes, infection (particularly related to forced sex during pregnancy), worsening of chronic problems already demonstrated by the pregnant woman (such as hypertension and diabetes), as well as miscarriage.

In their review paper, Campbell & Lewandowski (1997) described a study conducted by Plichta (1996),[13] in which women facing physical violence by a spouse or live-in partner were significantly more likely than other women to describe their health status as fair. Yet their poor health was often diagnosed as due to sexually transmitted infections (STIs) and other gynaecologic illnesses, and they recounted needing medical attention but not receiving it. It is noteworthy that the increased risk of STIs among women facing violence, including HIV/ AIDS, is not a consequence of risky sexual behaviours on the part of women but, rather, a direct result of sexual assault/rape by their partners and to lack of protection during sexual intercourse at the male partner's insistence. In addition to the increased STIs risk, women facing sexual violence are vulnerable to pelvic inflammatory disease, vaginal and anal tearing and trauma, unexplained vaginal bleeding, bladder infections, sexual dysfunction, pelvic pain, dysmenorrhea, other genito-urinary health problems, and unintended pregnancy.[14] With regard to intervention, it is interesting to note that research in the West demonstrate that women respond without objection when asked directly by health care professionals about sexual abuse. In fact, the health care system is identified as '...the only place where women are likely to receive appropriate care for this aspect of their battering experience.'[15]

With regard to mental health, the primary mental health consequence of battering within an ongoing intimate relationship is depression and the strongest risk factor for identifying women facing violence in one study based in a primary health care setting was found to be depressive symptomology.[16] Research on the association between depression and domestic violence consistently demonstrates greater depressive symptomology among battered women as compared to other women.[17] In fact, the frequency and severity of current physical violence and stress are greater predictors of depression among battered women, than are prior histories of mental illness or demographic, cultural, and childhood factors. High rates of Post-traumatic Stress Disorder (PTSD) are also well-documented in battered women and the greatest indicator of PTSD illustrated by research to date is the severity of current violence.[18]

[12] Campbell J, Lewandowski L. 1997. "Mental and Physical Health Effects of Intimate Partner Violence on Women and Children."...

[13] Plichta, SB. 1996. "Violence, Health and Use of Health Services." In *Women's Health and Care Seeking Behavior*. Baltimore: Johns Hopkins University Press, pages 237—270.

[14] Eby K, Campbell J, Sullivan C, Davidson WS. 1995. "Health Effects of Experiences of Sexual Violence for Women with Abusive Partners." *Health Care for Women International*, 16: 563—576.

[15] Campbell J, Lewandowski L. 1997. "Mental and Physical Health Effects of Intimate Partner Violence on Women and Children." *Anger, Aggression, and Violence (The Psychiatric Clinics of North America)*, 20 (2): 353—374.

[16] Hamberger LK, Saunders DG, Hovey M. 1993. "Prevalence of Domestic Violence in Community Practice and Rate of Physician Inquiry." *Family Medicine*, 24: 283—287; Campbell J, Lewandowski L. 1997. "Mental and Physical Health Effects of Intimate Partner Violence on Women and Children."

[17] Gleason, WJ. 1993. "Mental Disorders in Battered Women: An Empirical Study." *Violence and Victims*, 8: 53—68; McCauley J, Kern DE, Kolodner K, et al. 1996. "The 'Battering Syndrome': Prevalence and Clinical Symptoms of Domestic Violence in Primary Care Internal Medicine Practices." *Ann Intern Med*, 123: 737—746; Ratner PA. 1993. "The Incidence of Wife Abuse and Mental Health Status in Abused Wives in Edmonton, Alberta." *Can J Public Health*, 84: 246—249.

[18] Campbell J, Lewandowski L. 1997. "Mental and Physical Health Effects of Intimate Partner Violence on Women and Children."

Herman (1992)[19] proposes that the mental health impact of ongoing and recurrent abuse and trauma is distinct from the impact of exposure to a single traumatic event. It is suggested that there are three different levels of mental health response to violence – alterations in affect (depressive affect), alterations in the perception of the abuser (the perception of the abuser as all-powerful and invincible by severely battered women), and alterations in sense of self (feelings of self-blame or diminishing sense of self also reported by severely battered women).[20] This framework for looking at the mental health impact of violence is extremely salient in light of the fact that research uniformly demonstrates that battering perpetrated against women by their family members and/or intimate partners increases in both frequency and severity over time.

Other mental health consequences of violence include: feelings of anger and helplessness, self-blame, anxiety, phobias, panic disorders, eating disorders, low self-esteem, nightmares, hyper vigilance, heightened startle, memory loss, and nervous breakdowns. Violence can also give rise to unhealthy behaviors, such as smoking, alcohol and drug abuse, sexual risk-taking, and physical inactivity. Self-harming behaviours—such as fasting—are also serious consequences of victimisation.

The Public Health System as a Site for Intervention

The public health system has been identified as an important site for the implementation of anti-violence intervention programmes for a number of reasons. First, the health care system is often the first contact for victims and survivors of violence, who approach health care providers for treatment of the resulting physical and psychological trauma. Second, the public health system occupies an important role in the struggles of victims and survivors to achieve justice. It serves as the only institution that can produce medical and forensic evidence formally recognised by the criminal justice system. For example, only a public hospital has the authority to register medico legal cases (MLCs). For victims and survivors of violence, the public hospital is also the only place where treatment can be obtained because private practitioners often turn away cases of suspected violence, such as suspected rape or assault. In addition to providing an opportunity for intervention with victims and survivors of violence, the system provides a place where gender- and violence-sensitisation programmes targeting the general public, health care providers, administrators, policy makers, and project developers can be carried out.

Barriers to Intervention

Despite the critical role of the public health system in responding to victims of violence, there are a number of barriers inherent to it. One of the most challenging barriers is that medical professionals are not equipped to respond adequately and sensitively to the issue of violence against women. This is due to a number of factors, including general indifference to victims of domestic violence and the likelihood that health professionals also subscribe to dominant societal norms which legitimise violence against women. There is evidence that even when women facing violence are identified within the health care system, health care providers have a tendency to focus on the physical consequences of abuse, to be condescending and distant, and to blame women for the violence they face.[21] Within India, the medical

[19] Herman, J. 1992. *Trauma and Recovery*. New York: Basic Books.

[20] Dutton, MA. 1992. *Empowering and Healing the Battered Woman*. New York: Springer

[21] Campbell J, Lewandowski L. 1997. "Mental and Physical Health Effects of Intimate Partner Violence on Women and Children."...; Kurz D, Stark E. 1988. "Not-So-Benign Neglect: The Medical Response to Battering." In K. Yllo and M. Bograd (Eds.) *Feminist Perspectives on Wife Abuse*. Newbury Park, CA: Sage; Layzer JI, Goodson BD, de Lange C. 1986. "Children in Shelters." *Children Today*, 15: 6—11; Vavarro FF, Lasko D. 1993. "Physical Abuse as Cause of Injury in Women: Information for Orthopaedic Nurses." *Orthopaedic Nursing*, 12: 37—41; Warshaw, C. 1989. "Limitations of the Medical Model in the Care of Battered Women." *Gender and Society*, 3: 506—517

education system does not mention violence as a health problem, nor does it include training or information on responding to victims and survivors. This discretion could be a result of the fact that within the medical context, violence is comprehended as a social problem and/or private family matter, as it does not fit into the traditional illness model. As noted elsewhere, 'The concern for violence is conspicuous by its virtual absence in medical discourses. The special medical needs and rehabilitation of victims and survivors of violence are hardly ever discussed by doctors.[22]

Formative research, conducted in 2000 by the Centre for Enquiry into Health and Allied Themes (CEHAT) during the planning and implementation stages of the Dilaasa Crisis Centre for Women at K.B. Bhabha Hospital in Mumbai, illuminated a number of behaviour patterns, perceptions, and beliefs held by medical professionals with regard to their roles in responding to the needs of victims of violence. The Dilaasa team conducted in-depth face-to-face interviews with all levels of medical, paramedical, administrative, and labour staff within the Hospital. The team also conducted systematic non-participant observation of the Bhabha Hospital Casualty Department. What follows is a brief summary of the key data findings.

- Hospital staff—at all levels—do not recognize domestic violence as a health issue (despite the fact that they recognize the health implications of violence).
- Health care professionals perceive domestic violence as a personal and family matter, in which they should not interfere. (For example, if the injuries examined contradict the reported history, they will refrain from further probing into the matter or questioning the given history.)
- Health professionals do not see their role in addressing domestic violence, as it is perceived to be a law and order problem and an issue that requires intervention by the police.
- Women self-reporting assaults are not informed about the importance or purpose of the medico legal procedure.
- At all levels of hospital staff, domestic violence is not understood as a violation of the rights of women. Rather, it is accepted as a norm and as an integral part of married life.
- Research findings also indicate that hospital staff's approach to domestic violence is a victim-blaming one, in which women are blamed for the abuse perpetrated against them.
- Hospital staff members are class oriented and nurture a communal bias when confronted with domestic violence: it is perceived to be more prevalent among the poor, the uneducated, and within religious minority communities.
- Overall, the perceptions held by hospital staff demonstrate that they too have been socialized by mainstream (and therefore sexist) belief systems regarding women's status, women's rights, and gender roles.

During this research phase, the Dilaasa team also examined and analysed the medico legal register within the Casualty Department to gain a greater understanding of the types of cases of violence registered here. This examination brought to light the improper and incomplete documentation of all medico legal cases, including those cases of gender-based violence.

The data findings from Dilaasa's unpublished studies further substantiate earlier research

[22] Jesani, Amar. 1995. "Violence and the Ethical Responsibility of the Medical Profession." *Issues in Medical Ethics*, January—March, 3 (1). Accessible via the Worldwide Web at: www.issuesinmedicalethics.org.

conducted by Shally Prasad.[23] In her research on the medical, legal, and police responses to victims of gender-based violence in New Delhi, Prasad concluded that the medico-legal responses to domestic violence, dowry-related violence, and rape are grossly inadequate. Her conclusion was that state procedures and systems designed to address violence against women actually impede women's access to needed services, further perpetrating injustice and abuse against victims. Key data findings of her study—gathered primarily from semi-structured interviews with female survivors of abuse, police officers, case workers, NGO leaders, lawyers, physicians, and government officials are summarised below:

- Police continually turn away and create many obstacles for women in their attempts to report their victimisation.
- Physicians—both private and state-employed—seldom make efforts to identify cases of domestic violence.
- Police and physicians frequently interfere with the filing of rape cases—by questioning the victim's story, delaying medico-legal authorisations, and not collecting needed medical and forensic evidence.
- There is great disparity between medico-legal protocol and actual implementation of those protocols, such as rape examinations.
- Victim-blaming attitudes are rampant within the health care, legal, and criminal justice systems, resulting in victims' reluctance to approach these systems for redress.

Opportunities for Intervention

The public health model places utmost importance on the prevention of injury and ill health (*primary-level intervention*). With regards to gender-based violence, this would encompass the elimination and prevention of all forms of abuse against women and girls. However, due to the fact that such violence is ubiquitous and that the immediate and long-term adverse consequences of such violence are well documented, public health efforts must also focus its strategies on harm reduction (*secondary-level intervention*) and treatment and rehabilitation (*tertiary-level intervention*).

Within the public health system, doctors and other health care providers, programme planners, and policy makers play specific roles in both responding to victims of gender-based violence and contribute to violence prevention efforts at all three levels noted above. These roles, as well as those of policy and the media, are summarised below and employ primary, secondary, and tertiary public health prevention strategies.

Primary Prevention

Primary prevention strategies refer to those efforts that can prevent violence from occurring in the first place. In order to achieve a no-tolerance approach towards gender-based violence, norms and assumptions about violence against women and girl within all facets of society must be challenged and changed. 'Society' here refers to the public, the public health system and to the government and the criminal justice systems.

In this regard, various forms of media and public awareness campaigns can play a critical role in fostering a greater public understanding of discrimination against and exploitation of women. Media can also play a role in limiting derogatory images of women and erroneous myths about violence committed against women, such as the belief that women who are being abused must have done something to provoke the violence. Simultaneously, the media can also promote positive images of girls and women. They could portray parents' joy after giving birth to a baby girl; women whose success is determined by education or occupation rather

[23] Prasad, Shally. 1996. "The Medicolegal Response to Violence Against Women in India: Implications for Women's Citizenship." Paper presented at the International Conference on Violence, Abuse, and Women's Citizenship, Britain, UK.

than by her physical appearance and of men (such as men standing up to other men who are abusers and resist perpetrating violence in their own families). The public should also be educated on the international, central government, and state laws prohibiting violence against women, as well as the punitive consequences they may face should they violate these laws.

Media campaigns carried out elsewhere to increase public awareness about interpersonal violence, gang violence, domestic violence, rape, and sexual harassment through multiple media forms such as television, radio, and informational booklets have demonstrated increased public knowledge about these various topics. It has often resulted in a positive shift in attitudes and social norms concerning domestic violence and gender relations. Evaluations of these campaigns have also documented willingness to positively alter women's own behaviour and to stand up against the occurrence of gender-based violence in their own communities. [24]

Within the Indian health care setting, community health volunteers (CHVs) can be instrumental in carrying out primary prevention public health efforts. From the public health system, these workers are the primary and vital link to both men and women in the community. Their role requires them to conduct home visitations and respond to various health needs, including immunisations, family planning, and disease surveillance. Due to their visibility in communities and the fact that CHVs generally belong to the community in which they work, they are very conscious of and alert to the culture, norms, and practices of their respective communities. They generally practice within a culture-appropriate framework and are not viewed as outsiders, thus granting them credibility and authority within the community to initiate discussions around sensitive topics such as violence against women.

In conducting anti-violence work at the primary prevention level, the role of men cannot be omitted. Male CHVs can be trained to organise and implement educational and awareness-building activities for adolescent boys and men on gender inequality, positive gender roles, and healthy relationships. These programmes should also educate men concerning the various tools men use to control and exert power over women, alternatives to using violence in relationships, the laws which condemn violence against women, the health and social consequences of violence against women, as well as the consequences they could face if they break the law. The key to preventing domestic violence is to change the social norms that sanction the use of violence against women. In addition to working with boys and men (potential perpetrators of violence), CHVs can also engage with adolescent girls and women. Awareness-building activities for girls and women can increase their ability to identify the various forms of violence they may encounter in their lives. These activities should increase their knowledge about their rights, increase their understanding of what constitutes a healthy relationship, increase their self-esteem and the belief that they do not deserve to be abused. This would instil in them a belief in gender equality, and increase their capacity to stand up to and challenge violence and/or the threat of violence. Efforts to promote women's empowerment, economic independence, and political representation also constitute primary prevention strategies. As these characteristics represent 'essential markers of gender equality,' they are essential to ending violence against women.[25]

[24] World Health Organisation 2002

[25] United Nations Development Fund for Women (UNIFEM). 2003. *Not A Minute More: Ending Violence Against Women*. Accessible via the Worldwide Web at: www.unifem.org

Secondary Prevention

Secondary prevention strategies involve efforts to minimise harm already done and to prevent further injury from occurring. Such strategies to combat violence against women include policy changes criminalising all forms of violence against women and prosecuting the perpetrators of that violence. In India today, there are certain forms of gender-based violence that are not considered criminal by current law. For example, rape is defined strictly as forced penile-vaginal intercourse outside marriage and excludes forced anal sex, forced oral sex, and the use of other objects and body parts. This current legal definition of rape not only fails to protect women from other methods of rape, it precludes the legal protection of non-female victims of rape and women who are raped by their husbands.

Under the Indian Domestic Violence Bill, domestic violence is a criminal offence. The Bill – written by the Lawyer's Collective[26] in collaboration with various grass roots women's organisations is currently pending in Parliament. Despite this progress, several aspects of the Bill are problematic and limit victims' ability to seek justice. After the Bill was submitted by the Lawyer's Collective, the Ministry maintained the same structure and content of the proposed Bill, but added new language and clauses that will likely create great barriers in prosecuting perpetrators. One added clause states that in order to hold offenders accountable, victims must demonstrate that the occurrence of domestic violence is habitual. The new language also excludes from the definition of domestic violence any act of violence committed in 'self-defence'. While the Indian Government claims to protect women from domestic violence through this legislation, the new clauses create opportunities for perpetrators to justify their offences. There is indication that there is no strong political will in India to chart out and protect the rights of its women citizens.

In response to the various loopholes created by the added clauses, women's groups in India have come together to create an external committee comprised of various experts in the field of gender-based violence, human rights, and the law. The role of its members is to review the Bill in consultation with women's groups and advocates, vocalise reservations about the new version of the Bill, and communicate recommended changes to the Ministry of Law.

In addition to the creation of new policies prohibiting all forms of violence against women and girls, it is critical that efforts are also made to ensure that laws already in existence are properly implemented. Such efforts should attempt to increase feelings of social responsibility among those whose duty it is to implement law and protect citizens. These efforts should also seek to diminish (and ultimately eliminate) the widespread corruption and bribery that prevent victims from attaining or even seeking justice due to their lack of faith in the system. While many forms of gender-based violence are illegal according to Indian civil law, many practices such as sex-selective abortion and dowry-related homicides are rampant, reaching epidemic proportions.

Another secondary public health prevention strategy is to develop a trustworthy, accessible, and co-ordinated reporting system that protects the safety, confidentiality and anonymity of women reporting violence, their supporters and advocates, and those witness to the acts of violence. Such a reporting system should involve not only the public health system but should also include the police and other constituents of the criminal justice system, and should incorporate elements and approaches that are gender-sensitive and rights-based. The public health

[26] The Lawyer's Collective is a New Delhi-based NGO working to increase the criminal justice system's response to gender-biased violence and other forms of oppression against women and girls.

system cannot be viewed in isolation from the criminal justice system in any discussion about preventing and responding to violence against women.

Within the health care setting, both health care and social service providers can play important roles in facilitating women's reporting of the abuses they are facing and in educating women about available medical and social services. Health care providers such as doctors and nurses can be educated in regard to all forms of gender-based violence and helped to consider the issue as an important public health concern. These providers can also be trained to identify abuse among their patients by employing careful and sensitive probing techniques, providing a safe and confidential space within the health care setting for the sharing of histories of violence, and by assuming a non-judgemental and caring demeanour and attitude. These providers can also be trained to carry out proper and thorough documentation of recent incidents of abuse, the resulting injuries, and the history of violence, and to subsequently make referrals to the appropriate agency or department for further care and emotional and social support.

Research suggests that, in addition to provider training programmes, instituting changes in in-patient care procedures (such as placing reminders for providers in patient charts to screen for abuse or incorporating abuse-related questions in standard patient intake forms) significantly impact the behaviour of health care providers. At the Dilaasa Crisis Centre for Women, a hospital-based intervention program providing emotional and social support for women facing domestic violence in Mumbai, a number of such strategies were used. On the case paper forms used by medical staff for each patient of the hospital, 'domestic violence' was added to the list of health problems for which doctors routinely screen. There is also a place in the case paper form for medical staff to indicate whether cases of domestic violence were referred to Dilaasa. In addition to this, placards listing the vital signs and symptoms of domestic violence are displayed in all outpatient departments in order to assist doctors in screening and increase the visibility of domestic violence as a health issue.

For patients, media can also be a powerful tool to increase awareness of domestic violence as a health issue. Placing posters in hospitals and other public places conveys a message that violence against women is a crime and does not have to be endured silently. Pamphlets, brochures, and placards also increase awareness of the existing organisations and programs that provide useful and needed services for victims.

In addition to sensitising health care providers, patients, and the general public, it is imperative for policy makers to acknowledge domestic violence as a public health issue of great concern and importance. Decision makers' ability and willingness to establish policy and protocols within the health care system to respond to gender-based violence is contingent upon their commitment to the issue. Only then can they advocate for the allocation of resources to train health care providers, monitor/evaluate anti-violence efforts, and co-ordinate with other service agencies for victims of gender-based violence. Within any large or bureaucratic system, mandate from the higher level is necessary for any institutional change to occur.

With regards to CHVs (see above sections), at the secondary prevention level, they can play a role in organising both men and women on the issue of gender-based violence. They can use methods such as protesting outside a known abuser's home to exert social pressure[27] and identify resource agencies within the community who can respond to the needs of victims. Through work conducted by

[27] Exerting social pressure through such means can also function as a primary prevention strategy by deterring other men in the community from perpetrating violence against women.

Dilaasa with CHVs, the Centre realised the crucial link between the domestic violence victims and the health care system that these workers form. During sensitisation training conducted for CHVs by Dilaasa, it was discovered that while these community-based health workers are easily able to identify women facing violence, their training and background do not equip them with the necessary skills to adequately respond to the emotional needs of women facing violence even though women openly shared their histories of violence with them. While CHVs may be unable to provide the social and psychological support women seek, they can provide supportive and gender-sensitive messages and aid women in accessing needed physical and mental health care.

Tertiary Prevention

Tertiary prevention efforts refer to strategies aimed at addressing previous exposures to physical, emotional, sexual violence, and their sequel. Within the public health framework, such strategies would involve the delivery of mental health and support services based within community or health care settings. Such services would involve gender-sensitive counselling, advocacy, referrals to other needed social services (such as shelter, legal aid, educational and job training programs, and medical services), and assistance in negotiating and accessing these various, and often fragmented, service systems. Such interventions should focus on empowering women and helping them to attain violence-free lives without judgement or imposition of our own ideas and opinions. This can be accomplished through validation of the trauma associated with abuse, education about various options women have, and help with identification of personal and social network strengths.

Once women enter the health care setting, the levels of violence—as well as their physical and psychological injuries—are likely to have reached unbearable and severe states. Because of this, doctors and nurses working within clinical settings are most likely called upon to intervene at the tertiary level. As noted in the previous section, doctors and nursing staff are expected to fulfil the following roles: (1) screening, (2) documentation, and (3) referral. Health care providers – particularly doctors – are in a unique position to identify victims of violence. In addition to the fact that they are often the first contact for victims seeking treatment, they are highly regarded and seen as neutral entities to whom patients can easily confide. This unique position affords doctors the ability to enquire into the current (or most recent) episode of violence, as well as the history of abuse. Furthermore, within the public health system, doctors are the only individuals with the authority to register medico-legal cases, conduct autopsies, collect important forensic evidence, and carry out post mortem examinations. All these procedures are necessary to prove the incidence of violence and punish the perpetrator.

Dilaasa as a Model

The Dilaasa Crisis Centre for Women is a joint initiative of the Brihanmumbai Municipal Corporation (BMC) and CEHAT. It is a public hospital-based crisis centre that provides social and psychological support to women facing domestic violence. In addition to providing emotional support through ongoing counselling, Dilaasa provides women with referrals to medical care, filing of complaints at the police station, shelter, legal agencies, and other social services and helps to facilitate women's access to these needed services. The other key functions of Dilaasa are training, research, and networking. Dilaasa is the first project of its kind in India with the aim of sensitising the public health system to gender-based violence and establishing a hospital-based crisis centre in India for women victims and survivors of violence.

With regards to training, the entire staff of K.B. Bhabha Hospital has been sensitised to the issue of gender and trained in the area of domestic violence as a health issue. In

addition to this widespread training, a core group of hospital staff demonstrating leadership and passion for this issue have emerged and been trained as key trainers. The formation of the core group will hopefully lead to one of the most important objectives of Dilaasa's training program—the formation of a permanent and institutionalised training cell within the public health system. The ongoing training of health care professionals will hopefully instil in them the attitudes, knowledge, and tools to respond sensitively and effectively to victims of violence. Their ability to view, screen, document, and refer victims is integral to their roles as health care providers and could undo many of the common misconceptions they hold about violence against women, victimisation, and their role in responding to this public health problem. Regarding research activities, in addition to the formative research described above, research conducted to evaluate the impact of hospital staff training is ongoing and the Centre is currently conducting an exploratory study on the impact of crisis counselling on the lives of women coming to Dilaasa.

Through networking efforts, Dilaasa has also helped to create visibility of domestic violence as a health issue within other health facilities of the BMC. Gender-sensitisation and training on domestic violence for staff from other hospitals is currently underway. Dilaasa is also outreaching to other organisations to establish additional referral links. Besides this, relationships with primary health care facilities are being developed to increase identification of victims and survivors, and to increase referrals to the Dilaasa Crisis Centre.

Some of the successes of the Centre to date include the following:

- Increased referral rates to the Centre, an indicator of its accessibility and usefulness to women facing violence
- Increased awareness and an enhanced understanding of women's health care needs among health care providers
- The establishment of the Centre itself demonstrates the successful mainstreaming of domestic violence within the public health system.
- The BMC has shown willingness to replicate the Dilaasa model in other hospitals under its authority.
- CEHAT has trained the deputed staff of the BMC to conduct ongoing awareness building and training activities, as well as manage the Centre's functioning once CEHAT withdraws from the project.

The activities of Dilaasa do assume a more clinical and 'treatment-based' orientation and operate primarily at the secondary and tertiary levels of the public health prevention model. This is due to a number of factors. Firstly, the Centre is based in a hospital and serves women who have already been victimised by violence in their homes. Due to the characteristics of this population, it is essential that services provided are tailored to their needs— to save lives, to prevent further injury and harm, and to help bring healing to the injuries and trauma they have already suffered.

Despite the focus on secondary and tertiary strategies, the ultimate goal of this work is to eliminate all forms of violence against women and prevent violence from ever occurring. However, the distressing truth is that violence against women is rampant and within our context – where services are so sparse and the issue remains a taboo topic, efforts have primarily focused on the crisis needs of women. While it takes an extremely long time to change social norms and attitudes, which remains the key element in preventing violence against women, all such work is important and essential. Thus, in the next phase of the Dilaasa project, primary prevention activities will be designed and carried out. In particular, Dilaasa will create formal linkages with constituents representing all levels of the health care delivery system in order to institutionalise anti-violence work throughout the system.

Conclusion

While global, national, and local anti-violence movements have made significant contributions to the field, violent crimes committed against women remain a huge health and social problem and the prevalence of such violence has not been reduced dramatically.[28] Creating new programs and protocols to respond to women facing violence, conducting cutting edge research on the epidemiology of gender-based violence, and increasing public visibility of this issue through activism is vital. According to UNIFEM's most recent report, *Not A Minute More* (released November 2003)[29], one in three women around the world will be raped, coerced into unwanted sexual relations, or abused in one or other form during her lifetime. It is clear that the labour and the advancements made in the last decade are not enough.

Violence against women can be prevented and its impact reduced in the same way that public health efforts have prevented and reduced pregnancy-related complications, occupational hazards, and infectious diseases resulting from contaminated food and water. The factors that contribute to the prevalence of violence – socially and institutionally entrenched sexist beliefs/practices and gender inequality – are mutable. While these social and structural changes are extremely difficult to achieve, such work is essential and unavoidable in order to end gender-based violence

In addition to primary prevention efforts, one cannot ignore the fact that a large number of women are already accessing the health care system for complaints arising from violence. There is therefore also a need to plan and implement programmes within the health care system that provide the much-needed social and psychological support required by women in crises and to reduce harm caused by the violence. Violence against women has only recently been acknowledged as a public health concern and thus greater efforts must be made to sensitise all levels of the system to the roots, nature and consequences of such violence, as well as to the opportunities for intervention.

Operating at the various levels described throughout the paper is essential to ensure all women's right to live a life free of violence.

[28] United Nations Development Fund for Women (UNIFEM). 2003. *Not A Minute More: Ending Violence Against Women*. Accessible via the Worldwide Web at: www.unifem.org
[29] Ibid.

SECTION 4
HEALTH SYSTEMS AND RESOURCES

Indian Systems of Medicine (ISM) and Public Health Care in India

Leena Abraham

Introduction

In contemporary India, alongside the large network of allopathic medicine (also called modern medicine or bio-medicine), traditional medical systems such as ayurveda, unani, siddha and naturopathy provide health care services to a vast population. However, these systems, officially called 'Indian Systems of Medicine' (ISM) and popularly known as 'indigenous systems', have received little attention in the public health care discourse in India. The dominant medical discourse projects ISM as the 'unscientific other' and assigns it a peripheral, residual role in the overall health care system, which is designed and organised on the principles and practices of allopathy. The Government of India, under the banner 'Indian Systems of Medicine', recognises ayurveda, unani, siddha, naturopathy and yoga as valid medical systems[1]. This has provided political visibility to these systems although the financial allocation by the state, for all these systems together, constitutes only around five percent of the total, with ninety five per cent being allocated for the allopathic system. Despite formally recognising ISM, state has not formulated any clear policies to utilise its services in providing public health care in India. Although marginalised by the medical discourse and neglected by the State for over a century, ISM not only survived but has emerged as a powerful sector in the field of health care. It has grown mainly through the informal private sector in health care.

The ISM sector today includes a vast network of practitioners, training institutions, research institutions and drug manufacturers with national and international recognition. ISM can no longer be ignored not only because of its numerical strength (Table 1) but because it is actively engaged in the political, economic and to some extent the epistemological discourses of contemporary times.

At the political level ISM symbolises cultural nationalism and contributes to strengthening of the national identity, in the context of globalisation. At the economic level, ISM opens up several avenues for newer commodities and services that can be profitably marketed and exported. At the epistemological level, it is engaged in a process of validation of traditional knowledge selectively using elements of modern science and besides, it represents alternative world views.[2] Thus ISM has emerged as an important player in India, influencing the overall health culture in a significant manner. The issues concerning ISM are complex and far too many. In this paper a modest attempt is made to highlight some of these issues that have implications for public health care in India.

- The first three sections of the paper will provide an overview of the development of ISM focussing on the historical, cultural and institutional contexts.

[1] Homeopathy, a distinct system from ISM, is also recognised by the state as a valid medical system. Homeopathy came to India during the colonial times and has become a popular system of health care. Although it has a distinct history of development in India, in this paper, homeopathy has been discussed along with ISM as the overall state policies and the medical discourse treats it as a marginal system.

[2] Bode, Maarten (2004) 'Ayurvedic and Unani Health and Beauty Products: Reworking India's Medical Traditions'. University of Amsterdam, Ph.D. Thesis.

- The section that follows will provide a description of the spread of resources and infrastructure in ISM and
- the last section will draw attention to some of the current issues concerning ISM that have implications for public health care in the country.

Development of ISM Discourses of Tradition and Modernity: The Historical Context[3]

The vast colonial historiography of medicine has expanded our knowledge of the contexts that led to the establishment of allopathy and its hegemony in India[4]. We also know of the colonial character of the health care system that was established. However, we know very little about the history of ISM. While there is some anthropological and sociological research on ISM in more recent times, they have been very sketchy. The general neglect of research on ISM by the social sciences has followed the general neglect of these systems by the State.

The reasons for the neglect of ISM by the state are both historical and political. The traditional medical systems such as ayurveda and unani, the main providers of health care until the turn of the twentieth century, met with mixed responses from the colonial powers. Until the 1830s, indigenous systems were looked upon as a cheap source of health care and at times were admired for the vastness and depth of their knowledge. There were occasions even later, in the second half of the nineteenth century especially after the mutiny, when the colonial administration relied on practitioners of these systems in order to extend health services to the rural masses [5] or used them as carriers of modern medicine in order to make it more acceptable to the masses.[6] However, the colonial state systematically refrained from officially

---

[3] This section is based on a research study on the social history of ISM education in India, Abraham, L (2001), The Social History of Medical Education (ISM) in India. Mumbai, Tata Institute of Social Sciences (unpublished monograph).

[4] There is a large volume of literature on the colonial history of allopathic care in India: Jaggi, O.P. (1969-1980) History of Science, Technology and Medicine in India, 15 Vols., Delhi, Atma Ram and Sons. Arnold, D. (ed.) (1988) Imperial Medicine and Indigenous Societies, Delhi, OUP; Ramasubban 1988, Imperial Health in British India, 1857-1900' in Disease, Medicine and Empire edited by MacLeod and Lewis, London, Routledge; Jeffrey, Roger (1988). The Politics of Health in India. Berkeley, University of California Press; Bala, P. (1991) Imperialism and Medicine in Bengal: A Socio-historical Perspective, New Delhi, Sage Publications; Harrison, M (1994) Public Health in British India: Anglo-Indian Preventive Medicine 1859-1914. Cambridge History of Medicine Series, New Delhi, Cambridge, University Press; Kumar, A. (1998) Medicine and the Raj: British Medical Policy in India, 1835-1911. Delhi, Sage; Pati, Biswamoy and Mark Harrison (eds.) (2001) Health, Medicine and Empire: Perspectives on Colonial India. New Delhi, Orient Longman.
ISM history is a relatively neglected area of research. The few studies on ISM include: Brass, P.R. (1972) 'The Politics of Ayurvedic Education: A Case Study of Revivalism and Modernization in India', in Education and Politics in India edited by Susanne H. Rudolph and Lloyd I. Rudolph, Delhi Oxford University Press; Bhardwaj, S.M. (1980) 'Medical Pluralism and Homeopathy: A Geographic Perspective', Social Science and Medicine, Vol.14B, 209-216; Bhardwaj, S.M. (1981) 'Homeopathy in India', in The Social and Cultural Context of Medicine in India, edited by Giri Raj Gupta, Main Currents in Indian Sociology, Vol. 6, New Delhi, Vikas Publication House; Bala P. (1984) 'Ayurveda and the British Raj : Factors Influencing State Policy in British India', Studies in History of Medicine, Vol.7, Nos.1-2, 13-15; Pannikkar, K. N. (1995) Culture, Ideology, Hegemony: Intellectuals and Social Consciousness in Colonial India. New Delhi, Tulika; Visvanathan, Shiv (1997) A Carnival for Science: Essays on Science, Technology and Development, Delhi, Oxford University Press. (Chapter 4. Modern Medicine and its Non-Modern Critics: A Study in Discourse); Hausman, G. J. (2002) Making Medicine Indigenous: Homeopathy in South India, Social History of Medicine, Vol. 15, 303-322. Recently there have been some publications in the early history of ayurveda, unani and homeopathy. They include Meulenbeld, G. J. and Dominik Wujastyk (eds.) (1987) Studies on Indian Medical History, Egbert Forsten, Groningen and Zysk, K. G. (1991) Asceticism and Healing in Ancient India: Medicine in the Buddhist Monastery. New York, OUP.

[5] Arnold, D. (ed.) (1988) Imperial Medicine and Indigenous Societies, Delhi, OUP.

[6] Hume, J. C. (1977) Rival Traditions : Western Medicine and *Ynan-I-Tibb* in the Punjab, 1849-1889, *Bulletin of the History of Medicine*, pp.214-231.

recognising the indigenous systems as well as from any financial assistance that contributed to the development of these systems. Various economic and political contingencies prevented the colonial administration from banning these systems, although it was considered on a few occasions.

The colonial health policies were based on western science and mostly aimed to meet the requirements of the colonial power. By the early 20th century, the exclusive state patronage of the allopathic system and the development of the allopathic profession had shaped a medical discourse that privileged 'scientific' medicine and led to the hegemony of allopathy. The neglect by the colonial state and more importantly the discrediting of ISM and the humiliation experienced by its practitioners, led to the formation in 1907of their political organisation, the All India Ayurvedic Mahasammelan (Ayurvedic Congress). By then it became clear to the proponents of ISM that the traditional systems had only rhetorical value for the Nationalist movement, which did not embody any genuine concern for their development. Under the new organisation, attempts were made to address the issues of the 'scientific status' and the criticism that these systems of knowledge had declined from a glorious past and were in a state of degeneration and disarray. The leadership was provided by stalwarts like Hakim Ajmal Khan, Pandit Shiv Sharma, Vaidyaratnam P. S. Varrier and others.

The Ayurvedic Congress began to address the issue of state recognition vigorously. They challenged the 'unscientific' status ascribed to them which they argued was unfair and politically motivated. Their attempts to revive the status were not confined to such political measures alone but efforts were simultaneously made towards modernising and institutionalising training, research and manufacture of drugs by some of the *vaidyas* and *hakims*. This period of ISM history, especially the end of the nineteenth and the beginning of the twentieth century, is a period that brought fundamental changes in the character of these systems. New medical colleges in ayurveda and unani were started, some of the traditional *patsalas* and *tols* (schools) were converted to modern medical colleges and manufacturing and marketing of ayurvedic and unani products using modern technology were established. All this changed the practice of the hitherto traditional systems. Some of these developments were used to counter the argument that they were 'unscientific', to demonstrate that they adapt to changing modern situations as well as to show that they were not 'closed systems' by adopting elements of modern medicine including pharmacology. Later some of the pharmaceutical companies even set up research units that were modern and that appear similar to the pharmaceutical firms of allopathy. Ayurvedists were at the forefront of this movement with the active involvement of *hakims*.

The counter ayurvedic discourse however fundamentally changed both the form and content of ayurveda. This period, which extended upto the 1960s, is also marked by intense debate within ayurveda, between the purists (adherents of shuddha/classical tradition or the revivalists) and the modernists (advocates of modernisation and innovation) which even led to a radical attempt at integrating allopathy with ayurveda in their medical colleges.[7] This attempt was a failure not only due to the unresolved theoretical incompatibility of the two systems but also due to the inability to prevent attempts made to use this as a back door entry into the allopathic system. The aspirants to the much coveted allopathic medical profession found this to be easier route to enter the profession which invited severe criticisms from the allopathic profession. There were prolonged

[7] Brass, P.R. (1972) 'The Politics of Ayurvedic Education: A Case Study of Revivalism and Modernization in India', in Education and Politics in India edited by Susanne H. Rudolph and Lloyd I. Rudolph, Delhi Oxford University Press.

nationwide strikes in allopathic medical colleges against the integration and what was termed as 'diluting' and 'corrupting' the 'scientific' knowledge. The professional interests of the allopathic community and the political pressure that they were able to bear upon the state brought an end to this experiment. The traditional systems, especially ayurveda, survived despite such turmoil from within the system and attack from outside. This is evident from the fact that the number of medical colleges, practitioners and pharma companies in ayurveda and unani has grown many fold over the years. Thus the ISM sector today is characterised by pluralism, where traditional practices continue along with the modern.

In post independent India, the development model that was adopted, based on modernisation and 'scientific development', not only promoted allopathy but could not find any relevance for traditional systems in this model[8]. This strengthened the hegemonic position of allopathy and reaffirmed the status of the traditional systems as being 'unscientific'. However, a banning of these systems was never considered for various reasons; they continued to provide health care services to the masses of India, there were practitioners and supporters of these systems who were politically powerful and moreover, the cause of these medical systems were used in the rhetoric of cultural nationalism against western imperialism of the colonial powers. While the ground reality became the instrumental factor for the continuation of traditional systems, the economic and political power of the lobbyists, especially of ayurveda and unani, forced the government to extend legitimacy to these systems and their practices. In the nationalist rebuilding of India, the rhetoric of the 'glorious past' which included ayurvedic knowledge continued to be evoked.

ISM and Medical Pluralism: The Cultural Context

Although the public health care system excludes ISM, the health culture in India continues to be pluralistic in nature as people negotiate therapies of the various medical systems. They use all or some of these systems either simultaneously or sequentially, for a single ailment or for different ailments. The choice of therapy may vary according to gender, age group or other social and economic status of individuals within the family. This phenomenon is so ubiquitous that perhaps there are no families in India that have not contributed to therapeutic pluralism. This is a unique situation where a dynamic therapeutic pluralism is supported by epistemologically and culturally divergent medical systems and practices that compete and co-exist with each other.

In the building of modern India, however, it was visualised that the traditional, indigenous practices along with their practitioners would gradually give way to modern medicine as modern education and health care facilities spread through the country. The latter did happen, but the indigenous systems did not disappear. Instead, a medical pluralism based on a hierarchy of medical systems has emerged. The politics of health care in the colonial and postcolonial period that shaped the present day biomedical discourse also transformed medical pluralism from being non-hierarchical in the pre-colonial times to a hierarchical one in post-colonial times[9]. The 'scientific' status as well the economic and political power that each system wields, both nationally and internationally, determine their positioning in the hierarchy. Allopathy occupies the privileged and incomparable position in this regard, followed by Ayurveda and other systems. It is privileged by the ideology of science, as being the only legitimate scientific system which places it in

[8] The Bhore Committee Report (1946) which provided the blue print for health care planning in independent India found no place for ISM.

[9] Abraham, L (2001), The Social History of Medical Education (ISM) in India. Mumbai, Tata Institute of Social Sciences (unpublished monograph).

a superior position vis-à-vis all other medical systems.

The development of medical pluralism, the structural and cultural bases of pluralism and the economics and politics that shape this phenomenon have not yet received adequate academic attention. However, there is some social science literature on why people continue to use traditional systems. Social science research in the 1960s and 1970s argued that allopathy was physically inaccessible to a large segment of the Indian people, especially to the rural masses, and it was this vacuum that the other systems occupied.[10] This line of argument continued with the added note that the physical distance between the rural poor and the elite doctors was exacerbated by social distance.[11] In general, it was argued that poverty, social inequality and backwardness resulting from lack of education, drive people to traditional practitioners, described often as 'quacks'. In the 1980s, several anthropologists argued that it is the cultural belief systems of the rural people that largely determined their health seeking behaviour.[12] Some authors elaborated the folk classificatory models of illness[13] while others argued that people's health care behaviour was influenced by a broad cultural framework that was derived from the ayurvedic system.[14] Some of the authors also demonstrated that people extend the same ayurvedic framework to the understanding of modern systems such as allopathy.[15] Briefly stated, sociologists argued that people use non-allopathic systems because they were inexpensive, easily available and the interaction with practitioners took place in the comfort of a familiar social and cultural setting. Unlike the sociologists who stressed the material aspects of health care, anthropologists stressed the cultural, idiomatic and the cognitive aspects of healing.

Apart from some of these reasons, in recent years, as personal anecdotes and media reports show, there is a growing disenchantment with the claims of allopathy in providing satisfactory cures for many ailments and also with rising unethical practices such as excess medication and use of unnecessary and invasive methods of diagnosis, with the side effects of several

---

[10] Gould H.A. (1965) 'Modern Medicine and Folk Cognition in Rural India ', Human Organisation, Vol.24, 201-208; Madan, T.N. (1969) 'Who Chooses Modern Medicine and Why? ', Economic and Political Weekly, Vol.4, 245-253; Paul, B.D. (ed.) (1975) Health, Culture and Community, New York, Russell Sage Publication; Minocha, A. (1980) Medical Pluralism and Health Services in India, Social Science and Medicine, vol.14, 217-223; Banerji, D. (1981a) 'The Place of Indigenous and Western Systems of Medicine in the Health Services of India', Social Science and Medicine, Vol. 15A, 109-114.

[11] Djurfeldt, G. and Lindberg S. (1976) Pills against Poverty: A Study of the Introduction of Western Medicine in a Tamil Village, New Delhi, Oxford and IBH Publishing Co.; Banerji, D. (1981b) 'Crisis in the Medical Profession in India', Economic and Political Weekly, Vol. 24, 1091-1092; Banerji, D. (1982) Poverty, Class and Health Culture in India. New Delhi, Prachi Prakasan.

[12] Leslie, C. (1980) 'Medical Pluralism in World Perspective ', Social Science and Medicine, Vol.14, 191-195; Gupta, G.R., (ed.)(1981) The Social and Cultural Context of Medicine in India, Main Currents in Indian Sociology, Vol. 6, New Delhi, Vikas Publication House; Nordstorm Carolyn, R. (1988) 'Exploring Pluralism – The Many Faces of Ayurveda', Social Science and Medicine, Vol.27, No.5, 479-489.

[13] Nichter Mark (1980) ' The Lay Person's Perception of Medicine as Perspective into Utilization of Multiple Therapy Systems in the Indian Context', Social Science and Medicine, Vol. 14B, 225-233.

[14] Kakar, S. (1982) Shamans, Mystics and Doctors : A Psychological Inquiry in India and Its Healing Traditions, Delhi, Oxford University Press; Zimmermann, F. (1987) The Jungle and the Aroma of Meats: An Ecological Theme in Hindu Medicine. Berkeley, University of California Press; Lambert, H. (1992) 'The Cultural Logic of Indian Medicine : Prognosis and Etiology in Rajasthani Popular Therapeutics', Social Science and Medicine, Vol.34, No.10, 1069-1076; Langford, J. (1995) 'Ayurvdic Interiors : Person, Space and Episteme in Three Medical practices', Cultural Anthropology, Vol. 10, No.3, 330-366.

[15] Leslie Charles (1992) Interpretations of Illness: Syncretism in Modern Ayurveda, Paths to Asian Medical Knowledge, (eds.) Charles Leslie and Allan Young, Berkeley, University of California Press, 177-208; Leslie, C. and A. Young (1992) Paths to Asian Medical Knowledge. Berkeley, University of California Press.

medications used in the treatment of chronic ailments coupled with the increasing use of surgeries; practices that are often driven by an overriding motivation for profits. The inability of the allopathic system to deliver services, the market induced demand for alternative care, the growing popularity of 'natural' cures and the government policy of recognising multiple health care systems provide the broader social and political contexts for the growth of medical pluralism. By neglecting ISM, social science research has abdicated the responsibility of critically evaluating the largest segment of health care and failed to contribute to an understanding of the complex health care reality in India, research that would have contributed to designing more equitable and wide spread health care services[16]. This is because the researchers remained committed to allopathy[17] and continued to stay with the conviction that modern medicine by virtue of the superiority of its scientific knowledge will eventually replace traditional and other systems of care. The social science research in health closely followed the objectives of allopathy and was critical only in so far as its practices deviated from its stated goals or when the state showed unwillingness to adequately supply allopathic care. The bulk of social science research has been advocacy research for the allopathic system as well as for the state[18]. There has been no engagement with the critique of the various medical systems, their structural bases, cultural manifestations and their shifting axis of power. What has been lost is a body of research that produced incisive analyses of medical pluralism and how it is shaping the health care realities of people on the one hand and how people use pluralism in an enabling manner to shape their own health care destinies on the other.

The class analyses undertaken provided excellent expositions of the class bias in service delivery and the class character of allopathic medical education. At the same time the health care scenario was visualised where the English speaking, elite professionals provided primary care to the vast public. Medical care would be elitist, upper class, but was expected to fulfil the dream of equity in a society that is vertically and horizontally divided along class, caste, gender and ethnic axis. When health care, including primary care, was seen as a highly specialised area of knowledge it only strengthened the hegemony of the allopathic profession. It was either unfashionable or inconceivable to recognise the services of the non-allopathic practitioners and to consider their inclusion

[16] Documents such as the one prepared by Naik, J.P. (1977) An Alternative System of Health Care Services in India: Some General Considerations, in An Alternative System of Health Care Services in India: Some Proposals, by J. P. Naik. Bombay: Allied Publishers Private Ltd., pp. 3-30; Banerji, D. (1977) Formulating an Alternative Rural Health Care System for India: Issues and Perspectives, in An Alternative System of Health Care Services in India: Some Proposals, edited by J.P. Naik, Bombay, Allied Publishers Private Ltd., 31-50; ICSSR and ICMR (1981) Health for All: An Alternative Strategy, Pune, Indian Institute of Education have paid very little attention to the issue of ISM and the army of indigenous practitioners. Subsequent publications on public health care in India continue to show the same apathy. For e.g., this glaring neglect can be seen in the two major publications on the health status of Kerala (Panikar, P.G.K. and C.R. Soman (1984) Health Status of Kerala. Trivandrum, CDS; Kannan, K.P., et al. (1993) Health and Development in Rural Kerala. Trivandrum, Kerala Shastra Sahitya Parishad) which do not mention ayurveda or homeopathy although these two systems are widely used in the state.

[17] Perhaps this was also because some of the leading social science researchers in health were themselves trained allopathic doctors.

[18] It is interesting to note that the focus of many research studies was 'compliance': why are people not 'complying' with allopathic care? And why are the allopathic practitioners not 'complying' with the plans and the programmes of the government.

into the formal health care system[19]. However, the continued political pressure from the ISM sector and the repeated recommendations of a number of committees set up by various governments led to the setting up of various institutions of ISM by the state.

Development of ISM in Independent India

The neglect of ISM by the state which began during the colonial times did not significantly change after the independence. Although several committees were set up after Independence to look into various aspects of ISM and Homeopathy and several recommendations were gradually implemented, the Indian state did not actively intervene until the 1970s (See Appendix I). Until then, the state neither actively supported ISM nor strictly regulated their practices. The minimal yet continuous support extended by the state provided legitimacy for the existence and practice of these systems. More importantly, the lack of active support led to several paths of institutional development initiated from within, especially in the areas of medical training and pharmaceutical production[20]. The flip side of the argument is that, by neglecting this sector, the state allowed an unregulated growth of the private sector, which has resulted in a scenario that appears quite chaotic.

The ISM sector, as Figure 1 shows, consists of a large category of practitioners and institutions unlike the more homogenous and monolithic allopathic system. It includes both a formal sector and an informal sector, a division that can be made based on state recognition of the practitioners (registered) and institutions. It includes a small public sector and a large private sector based on the sources of financing. Then there are trained practitioners and untrained practitioners, and there are practitioners who have received their training through an institution or through apprenticeship.

The classification presented in Figure 1 combines categories used in the analyses of medical systems and lay categories. In the field all these categories overlap in complex ways. This classification must be used as a heuristic device for the purpose of analysis and communication rather than as mirroring the reality. Distinctions can be made not only between medical systems and practices, but are discernible also within each system and each category of practitioners. Ayurveda, for instance, is not a unified system of medicine. Seeing it thus obscures the diversity of textual interpretations and therapeutic practices that goes on in the day-to-day practice of ayurveda. Broad classifications also tend to obscure 'cross practices' followed by practitioners of all systems of medicine. Nevertheless, we use these categories as signposts to explore the ISM sector in India.

The Informal Sector

Along with the state recognised medical practices, there is a vast spectrum of informal health care services that may be based on the medical knowledge and practices of ISM. Some of these services may also combine spiritual and ritual healing along with medical care (Fig 1). A distinguishing feature of this folk spectrum of care is that the knowledge and skills are not codified in texts. They are vested

[19] For instance, the responses to train the *dais* were lukewarm and the policy to keep them at the lowest level of health care services was never questioned. The resistance by the allopathic profession towards integrating different systems of medicine and their opposition to introduce allopathic subjects into the ISM courses were endorsed by the social scientists. The catch 22 situation continued: practitioners of ISM lacked scientific knowledge and therefore their practices were invalid while scientific knowledge could not be given to them because their practices were invalid.

[20] The contributions of several individuals and pharmaceutical establishments are significant. Noteworthy are names such as P.S. Varier of Kerala, Nanal of Maharashtra, the Azziz brothers of Lucknow etc. Firms such as Zandu, Dabur and Himalaya drug company popularised the 'ayurvedic' brand name. This period is marked by several innovations in modernising the traditional systems.

with individual healers and transmitted orally. Although their practices are strictly speaking, 'illegal' they are not banned by the state. They are 'quacks' in the eyes of formal medical systems but there is no concerted effort to discredit or displace them. They continue to provide health care services both in the hinterland of rural India and in the heart of cities. The folk practitioners are roughly estimated to be over a million (1991 estimates). There is really no way of arriving at a reliable count of these practitioners. Yet, as one anthropologist observed on the basis of his extensive stay and field visits through the country, these practitioners along with the ISM practitioners are 'the most accessible and most used source of medical care in the country'[21]. Thus the overall contribution of ISM to health care in India has been almost exclusively through the private informal sector. The services of the informal sector cut across class, caste and gender barriers and they treat not only somatic illnesses but a range of psychosomatic conditions as well. Thus a large informal sector carries on unregulated, while a much smaller formal sector is developed by the state.

ISM and the State: Legitimacy Through Institutionalisation

The state financed institutional development of ISM and Homeopathy in post-colonial India really took off only in the 1970s and 1980s when institutions structurally similar to those in allopathy were established in ayurveda and homeopathy. Till then there was confusion in the administration in terms of the direction that these 'indigenous' systems should take, how they would modernise and to what extent. The confusion is evident from the number of committees that was set up and the contradictory recommendations contained in the reports of these Committees[22] (Appendix 1).

There have been two lines of institutional development initiated by the state: one for the regulation of educational standards and professional practices and the other concerned with the promotion of research. The Central Council of Indian Medicine established in 1971 and the Central Council of Homeopathy established in 1973 are responsible for maintaining uniform standards of education in these systems throughout the country and also for the regulation of the professional practice of these systems. There are four separate central councils to support research in ISM and Homeopathy. Since 2003 all the activities associated with ISM and homeopathy have been brought under the administration of a separate ministry called the Ministry of AYUSH.

Several institutes were set up under the Ministry of Health and Family Welfare as autonomous organisations to provide leadership in training and research. They include the Rashtriya Ayurveda Vidyapeeth at Delhi, the National Institute of Ayurveda at Jaipur, the National Institute of Homeopathy at Calcutta, the National Institute of Unani Medicine at Bangalore, and the National Institute of Naturopathy at Pune. Apart from the above institutes, the Gujarat Ayurveda University at Jamnagar and the Banaras Hindu University at Varanasi also offer post-graduate training and research in ayurveda.

The training and research institutions in ISM are structurally designed along the model of allopathic institutions. They offer degrees similar to that of allopathy and are affiliated to various universities. The guiding principle of these institutions is to 'modernise' the traditional systems using the 'scientific approach'. For instance The National Institute

[21] Rhode, Jon Eliot and Hema Viswanathan (1995) The Rural Private Practitioner, Delhi, Oxford University Press.
[22] For details of the recommendations of the important committees, see Brass (1976)

of Ayurveda at Jaipur was established in 1978 as 'an apex institution of ayurveda in the country to develop high standards of teaching, training and research in all aspects of ayurvedic system of medicine with a scientific approach'[23]. There are several institutes in ayurveda that are engaged in teaching, training and research at under-graduate and post-graduate levels and offer Ph.D. degrees[24]. Similarly, the National Institute of Homeopathy (NIH) at Calcutta was established in 1975 to provide leadership in scientific development and institutionalisation of homeopathy. It is affiliated to the University of Calcutta and has been conducting the degree course in homeopathy (Bachelor of Homeopathic Medicine and Surgery, BHMS) since 1984[25]. The NIH has an out patient department, haematological and biochemical laboratories, rural mobile units, medical and surgical specialities, modern radiological facilities and a 50 bed hospital. While these facilities bring homeopathy structurally and organisationally in line with similar institutions in allopathy, some facilities such as a herbal garden, address the specific need of homeopathy. The herbal garden maintained by the Institute meant for acclimatising imported species of plants and as a repository of authentic specimens of medicinal plants, is perhaps the only structure that retains the 'identity' of homeopathy. The state financed institutional developments in unani, naturopathy and yoga are at a basic level. The activities through The National Institute of Unani Medicine at Bangalore, established in 1987 in collaboration with the Government of Karnataka, and The National Institute of Naturopathy at Pune established recently are yet to really take off.

Four apex bodies were also established to promote research in ISM and Homeopathy. They are the Central Council for Research in Ayurveda and Siddha (CCRAS), Central Council for Research in Unani Medicine (CCRUM), Central Council for Research in Homeopathy (CCRH), and Central Council for Research in Yoga and Naturopathy (CCRYN). The objectives of these bodies, as stated in the annual reports, are to initiate, guide, develop, co-ordinate and fund 'scientific research' in the respective medical systems. The four Councils are autonomous bodies fully financed by the Government of India and are conceived as counterparts of the Indian Council of Medical Research (ICMR) for allopathy.

As the annual reports for various years (1988 to 2001) show, research studies are undertaken by these councils especially the CCRAS and CCRH. The Ayurveda research council conducts clinical studies of diseases[26] and undertakes medico-botanical surveys, cultivation of medicinal plants and carries out chemical, pharmacological and toxicological studies of ayurvedic drugs. Drug standardisation research is stated to be an important area of research. The CCRAS also publishes three journals: 'Journal of Research in Ayurveda and Siddha', 'Bulletin of Medico-Ethno-Botanical Research' and the 'Bulletin of Indian Institute of History of Medicine'. The homeopathic research council (CCRH) constituted in 1978, carries out clinical research through the two research institutes at New Delhi and Mumbai and through a number of Clinical Research Units (14) spread across the country. It also conducts drug research and disseminates information

[23] Government of India 1996, Annual Report 1994-95

[24] The Institute for Post-Graduate Teaching and Research at Jamnagar offers a M.D. (Ayurveda) degree in different specialisations. It is also a WHO collaborative centre that offers training in ayurveda to foreign scholars. The Rashtriya Ayurveda Vidyapeeth at Delhi was established in 1988 to impart advanced training beyond the post-graduate level.

[25] Earlier, the institute conducted a two year diploma course called Dip. NIH.

[26] A list of 25 such diseases was mentioned under this programme in the Annual Report of 1994-95. Many of the diseases covered are the ones commonly prevalent in India.

through its publications, 'Quarterly Bulletin' and 'CCRH News'. The volume of research work carried out by these three councils, through a net work of small units spread throughout the country, is minimal but is of symbolic significance as it provides state legitimacy to these systems. There is little or no research is being done through the councils of unani, yoga and naturopathy[27].

There have been a few attempts to involve these councils and incorporate their research outcomes into the government health programmes. For example, the CCRAS participated in the plague prevention and the malaria control programmes of the government. It has patented and commercialised a drug called Ayush – 64 for the treatment of *Vishmajwara* (Malaria) developed at the Regional Research Institute at Jaipur. An oral contraceptive called 'Pippalyadi yoga' developed by the CCRAS has been incorporated into the National Family Welfare Programme. The integration of ISM into the state health care system has so far been limited to such experiments.

The state has also been involved in the production and regulation of ISM drugs. To address the issue of uniform standards in drug preparation, government has established two pharmacopoeia committees, one for ISM and another for homeopathy. These committees are expected to prepare the official drug formularies or pharmacopoeia which could then be used to ensure uniform standards throughout India[28]. The government has also established two pharmacopoeia laboratories at Ghaziabad near Delhi for testing of drugs in ISM and homeopathy. Quality and reliability of the drugs have been a concern of the state from early on as these issues have been raised in public debates from time to time. The Pharmacopoeial Laboratory for Indian Medicine (PLIM) was established in 1970, before the establishment of the medical and research councils in ISM and Homeopathy. More recently the drugs of ISM have been brought under the purview of the Drugs and Cosmetics Act, 1940. A drug control cell for the Indian Systems of Medicine was set up in 1992 to assist the Drugs Controller of India to deal with issues concerning ISM drugs. Besides supporting the structures and institutions for standardising and testing of drugs, the government also undertakes manufacture of ayurvedic and unani medicines. The Indian Medicines Pharmaceutical Corporation Ltd (IMPCL) at Almora in Uttar Pradesh was started in 1983 for this purpose.

'Scientific' Development and Subordination

As the foregoing discussion shows, the state supported institutionalisation of ISM and Homeopathy which began in the 1970s is steadily growing. It is quite evident that the development of the structures and organisations for training and research in ISM and Homeopathy has closely followed the allopathic model. However, the different systems have been allowed to retain their individual identities. Through these processes of institutionalisation and modernisation based on the allopathic model, the issue of 'scientific status' of ISM which was a strong and recurrent theme in the medical discourse in post colonial India has been partly addressed by the state. From time to time,

[27] The work of the Central Council for Research in Yoga and Naturopathy, established recently, is limited to providing financial assistance to voluntary yoga and nature cure institutions and supporting nature cure training programmes.

[28] The Ayurveda Committee published the Ayurvedic Formulary of India in two parts containing 444 and 190 compound formulations respectively and Ayurvedic Pharmacopoeia of India Part I containing 80 monographs on single drugs of plant origin so far. The second and third volumes of Ayurvedic Formulary of India (English version) has been recently (2000-2001) published. The first part of the National Formulary of Unani Medicine (Urdu version) containing 441 formulations was released in 1994. The work of the Siddha Committee and the Homeopathic Committee are only in their initial stages.

the support extended by state to the 'traditional' or 'unscientific' systems came under fire from the powerful allopathic profession and the intellectual elites of the country as spreading quackery. The state financed institutional development certainly set in motion a process of 'scientisation'[29], of carrying out research to validate the medical theories, practices and drugs using concepts, methods and theoretical knowledge of modern science. The aim of these modern institutions of ISM and homeopathy is to conduct 'scientific research' and to 'prove' the 'scientific value' of their knowledge. This is most evident in the testing and 'proving' of the drugs. The initiatives by the state reflect an approach towards mainstreaming ISM using the strategy of scientisation.

The state not only acts as an agency that monitors and regulates the practice of medicine but is also actively involved in the production of practitioners as well as of drugs. The volume of state production, as the next section on the infrastructure shows, is small in comparison to the contribution of the private sector. Yet, it reflects the state's commitment towards modernising and institutionalising the traditional systems. The need for institutionalisation, a need acutely felt by many prominent advocates of ISM and recommended by the numerous committees set up by the government since Independence, was addressed by the state by superimposing a blue print of the allopathic structure onto the traditional systems. This move was devoid of any consideration of the epistemological basis of these systems as well as their systemic requirements. The objective of institutionalisation proposed and initiated by ayurvedists, both the traditionalists as well as the modernists, was to restore the status of ISM to a legitimate official status equal to that of allopathy.[30] The state supported institutionalisation, by modelling it on the allopathic system, in effect, has reaffirmed the subordinate status of ISM and H by forcing the latter into a continuous process of validation through the theories and methods of the former. The futility of setting such goals and their likely consequences for the medical systems were known to the advocates of ISM and was publicly debated even before independence. Varier's articles in 'Dhanvantari' [31] as well as Srinivasamurthi's note in the Report of the Committee on Indigenous Systems of Medicine (1923) articulate these concerns well. The structures and network of institutions that the state have established are elaborate and to dismantle these structures or to withdraw its commitment would be a difficult proposition for the state as it has been deeply entrenched in the promotion of a hierarchical medical pluralism in India.

Prior to the state sponsored institutional development of ISM, various models of institutionalisation had been initiated by ayurvedists and *hakims*[32]. Their efforts were focussed around manufacturing and marketing of drugs. For instance, P.S. Varier of Kerala, staying clear of the 'scientisation' process, initiated a line of development by modernising the manufacturing of ayurvedic medications by ingeniously adopting elements from modern science and technology to increase efficiency of production while adhering to the classical formulas of medications. The aim was to spread the cause

[29] Banerjee Madhulika (2004) Local Knowledge for World Market: Globalising Ayurveda, Economic and Political Weekly, Jan 03, Vol. 39.
[30] Brass, P.R. (1972) 'The Politics of Ayurvedic Education: A Case Study of Revivalism and Modernization in India', in Education and Politics in India edited by Susanne H. Rudolph and Lloyd I. Rudolph, Delhi Oxford University Press.
[31] Pannikkar, K. N. (1995) Culture, Ideology, Hegemony: Intellectuals and Social Consciousness in Colonial India. New Delhi, Tulika; Krishnankutty, Gita (2001) A Life of Healing: A Biography of Vaidyaratnam P.S. Varier, New Delhi, Viking by Penguin Books India.
[32] Gangadhara Ray of Bengal started large scale manufacture of ayurvedic drugs as early as 1884 (Bala 1991).

of ayurveda rather than to subordinate its interests by chasing the elusive goal of 'scientific' status. The profits gained from the sale of drugs were used in activities to support other areas of development such as starting training institutions and research. Similar attempts were made by others in Bengal, Maharashtra and Tamil Nadu. Yet another line of development focussing again on the drug manufacturing, combined modern science (elements of modern pharmacology and biochemistry) to modify the ayurvedic drugs to suit the demands of modern times. The focus was on improving the convenience of their use both by the practitioners and the clients. They also used modern techniques of promotional and marketing strategies employed by the allopathic pharmaceutical firms[33]. The multiple strategies of institutionalisation initiated by private agencies contributed significantly to the modern development of ayurveda.

Infrastructure in ISM

In addition to the state financed health care infrastructure in ISM and Homeopathy there exists a vast infrastructure developed and promoted by the private sector[34]. A complete picture of the infrastructure available in ISM and Homeopathy in contemporary India is difficult to draw mainly because data collection and documentation in ISM are restricted mainly to the Government sector. The following section will provide an overview of the infrastructure currently available in ISM in terms of hospitals, dispensaries, practitioners, training institutions and pharmaceutical industries across the country.

Hospitals, Beds and Dispensaries

The infrastructure available in ISM and H (Table 1) is large enough to warrant detailed disaggregated analyses of their distribution across the country. The data on health care facilities such as hospitals, beds and dispensaries in ayurveda, unani and homeopathy in different states (Tables 3 and 4) show that the actual size and spread of ISM and homeopathy is significant and show some interesting features and trends.

Firstly, as the data suggest, the facilities are not evenly distributed throughout the country. They are concentrated in a few states such as Maharashtra, U. P., Karnataka and Kerala. These facilities are virtually absent in the north eastern states, Jharkand, Chattisgarh, Arunachal Pradesh and Assam. The strong presence of tribal medicine in some of these states[35] and the continuation of a history of absence of these systems in these parts of India may have resulted in such a wide disparity in the spread of the facilities. Some of the states have fewer hospitals with in-patient care, but have more dispensaries. States such as Maharashtra, U.P., Karnataka and Kerala have a large number of hospitals and beds with U.P., far exceeding the others in the number of hospitals.

Secondly, if the data is a reliable indicator, different medical systems are popular in different parts of the country and the situation seems to have changed since the 1960s[36]. Although pluralism to some degree is seen in most states, it is more evident in Maharashtra, Madhya Pradesh, U.P. and Karnataka where all the three systems are represented through their health care institutions. West Bengal was historically a centre of both ayurveda and homeopathy; it had a tradition of famous ayurvedic practitioners (Kavirajs) and

[33] Examples of these models of development include Dabur, Zandu and The Himalaya Drug Company.
[34] This excludes the untrained, unrecognised informal practitioners of ISM & H.
[35] Roy Burman, J.J. (2003) Tribal Medicine: Traditional Practices and Changes in Sikkim, New Delhi, Mittal Publications
[36] A comparison with the situation in 1960s provided by Bhardwaj, S.M. (1980) 'Medical Pluralism and Homeopathy: A Geographic Perspective', Social Science and Medicine, Vol.14B, 209-216 is useful here. This comparison illustrates the dynamic character of medical pluralism.

homeopathy took root in India through Bengal and flourished there.[37] Despite this, West Bengal has a smaller presence of medical institutions in these systems. The popularity of ayurveda has certainly declined with the spread of allopathy while the popularity of homeopathy still continues. However, the homeopathic tradition perhaps is continuing through the informal, non-institutionalised sector[38].

Thirdly, the argument that the absence of allopathic facilities is the reason for the popularity of ISM does not hold for many states. Often, states with better distribution of allopathic facilities are also better served with ISM and H facilities. For example, Kerala, Maharashtra and Karnataka seem to support ISM and H along with allopathy. Similarly, the overall development status of the region in terms of education and health indicators do not seem to explain either the presence or the absence of ISM and H. If social and economic backwardness is the reason for the strong presence of ISM and H in U.P, the same cannot be said of Mahrashtra, Karnataka and Kerala.

It is possible that these figures do not entirely represent the ground reality since they leave out the informal sector. However, there surely would have been compelling reasons either for starting these institutions or for supporting the already existing ones. The above data though it reflects only the formal sector, endorses the fact that the health culture of the country is essentially pluralistic in character, a point time and again stressed by anthropological studies and a point that is persistently ignored by the development discourse in the country and by the health care planning machinery. Another point that the above data indicates is the changes that are taking place in the health care culture of the country. While the tradition of medical pluralism continues in some regions, it has weakened in some others.

Practitioners

According to recent data [39] there are nearly 6.9 lakh registered qualified practitioners of ISM and H in India, of which about 2 lakh are non- institutionally qualified (NIQ) (Table 4). This means, as per the 2001 census, there will be about 67 registered practitioners of ISM and homeopathy per one lakh of population. Three fourths of the registered ayurveda practitioners and half of the homeopathy and unani practitioners are institutionally trained which shows the impact of institutional developments in these systems. Most of the practitioners of siddha however do not have any institutional training. (See Table 2, Table 5)

The trend in the growth of practitioners in the various medical systems since 1980 (Table 5) shows that the total number has almost doubled in the last 20 years. The number of institutionally trained practitioners has been steadily growing and shows a four fold increase in the last twenty years while the number of non-institutionally trained practitioners shows a marginal increase up to 1995 and thereafter shows a decline. The increasing number of medical colleges in these systems and the stricter implementation of registration requirements have led to a steady decline in the registration of non-institutionally trained practitioners. However, the non-institutionally qualified siddha practitioners show an increase and this trend

[37] Gupta, B. (1976) 'Indigenous Medicine in Nineteenth and Twentieth Century Bengal ', in Asian Medical Systems, edited by Charles Leslie. Berkeley, University of California Press; Bala, P. (1991) Imperialism and Medicine in Bengal ; Bhardwaj, S.M. (1980) 'Medical Pluralism and Homeopathy; Bhardwaj, S.M. (1981) 'Homeopathy in India', in The Social and Cultural Context of Medicine in India, edited by Giri Raj Gupta, Main Currents in Indian Sociology, Vol. 6, New Delhi, Vikas Publication House.

[38] Some of the major manufacturers of homeopathic medicine are located in West Bengal and several homeopathy short-term courses are being run from the state.

[39] Government of India (2001) Indian Systems of Medicine and Homeopathy in India, 2001. Planning and Evaluation Cell, Ministry of Health and Family Welfare.

may continue so because of the continued practice of registering them and there are not many new training institutions coming up in this system. There is a sudden drop in the non-institutionally trained homeopaths and a sudden rise in the institutionally qualified homeopaths in the last two years; A reduction of over 14,720 practitioners in the former and a rise of 17, 825 practitioners in the latter category. Either this is due to a reporting error or it is due to a real increase as a result of the untrained acquiring degrees/diplomas after registering as NIQ practitioners. Again, the distribution of ISM practitioners shows wide variation across the states (Table 6). Practitioners per lakh population among the larger states range from 146 in Bihar to 24 in Orissa. Assam and Jammu and Kashmir have very few qualified ISM and H practitioners.

What this data however shows is that the government's decision not to register untrained practitioners since 1978 was not strictly adhered to. As Rohde and Viswanathan [40] found, some of the young untrained practitioners used back dated experience certificates to avail registration facility that was extended only to those practitioners who did their apprenticeship under trained or experienced practitioners. The registration rules have become more streamlined and stricter in recent years. This move is likely to curb the registration of untrained practitioners. While the stricter registration rules may to a great extent clean up the formal sector, it may not be effective for the larger informal sector. (See Table 6)

Medical Education

Medical education in ISM has undergone several changes as a result of several political and economic factors.[41] as well as due to the efforts made by forces within ISM to modernise and institutionalise.[42] All these factors have resulted in the growth of modern medical colleges in ISM in place of the traditional training institutions. At present, there are 196 medical colleges that offer undergraduate training in ayurveda (B.A.M.S.), 166 in homeopathy (B.H.M.S), 39 in unani (B.U.M.S.) and 2 in siddha (B.S.M.S.). The annual turnover of graduates from these 403 medical colleges is around 20,000. These are figures that are comparable to that in the allopathic system. The colleges in ayurveda and homeopathy (Table 7) are spread across the Indian states, while that of siddha and unani are concentrated in a few states. The two siddha colleges are located in Tamil Nadu and have a total admission capacity of 150. Out of the 39 unani colleges, 10 are located in U.P., 6 in Maharashtra, 5 in Bihar and Rajasthan, and Madhya Pradesh and Karnataka have 3 each. Others are thinly spread across various other states. The total undergraduate student intake in all the 39 unani colleges is 1410. (See Table 7)

As the data show, at present, the private sector investment in medical education in ISM and H is much higher than the government contribution. At the time of independence however, there were twice as many government ayurveda colleges as private ones. Although the private sector began to grow in the mid 1980s, it shows an unprecedented growth since the 1990s (Table 8). The private sector growth in ayurveda is localised while that of homeopathy is spread across a few states. A large number of medical colleges in ayurveda and homeopathy have mushroomed in Karnataka and Maharashtra under the expansion of the 'capitation' fee regime. This occurred in two spurts. In Maharashtra, the first spurt was during 1989-92, when 18 new private ayurveda colleges were established. In Karnataka during 1991-93, 13 new colleges were started. The second spurt in Maharashtra is more recent, i.e., between 1999 and April 2001, during which 17 new

[40] Rohde, Jon Eliot and Hema Viswanathan (1995) The Rural Private Practitioner, Delhi, Oxford University Press.
[41] Jeffery, R. (1982) 'Policies Towards Indigenous Healers in Independent India '. *Social Science and Medicine*, Vol.16, 1835- 1841.
[42] Leslie, C. (ed.) (1976) Asian Medical Systems: A Comparative Study. Berkeley, University of California Press.

private colleges have been added. The corresponding period for Karnataka is 1996-99 when 25 new colleges were added. Barring these states, Punjab and Madhya Pradesh have shown some growth in ayurvedic education post 1995 with an addition of 5 and 3 colleges respectively. The expansion of the private sector in ayurvedic education in other states has been much less significant.

In the case of homeopathic education, in Maharashtra during 1988-92, 18 new colleges and in the second phase, i.e., during 1999-2001, 5 new colleges were started. Karnataka has not shown the same enthusiasm towards homeopathy while Madhya Pradesh has promoted education in homeopathy in recent years with eight out of 16 colleges coming up during 1999-2000. Similarly, seven out of the 11 colleges in Tamil Nadu have come up during 2000-2001. Gujarat and Bihar are the other two states that have shown some private sector investment in homeopathic education.

The investments in ayurvedic and homeopathic education show some interesting features. The state of U.P. relies almost exclusively on government funding. The government runs nine out of 12 ayurveda colleges and all the 10 homeopathic colleges. In M. P. much of ayurvedic education is government supported and almost all of homeopathic education is privately funded. While in states like Kerala and West Bengal the private and public investment are more or less balanced. These two states have not shown any significant growth in medical education in recent times. There are also instances when the growth depended much on the enthusiasm of state ministers. For instance, in Gujarat, out of the total of 9 ayurveda colleges, five were started during the mid 1960s when Pandit Vyas, a strong advocate of *shuddha* ayurveda, was the health minister.

Most of the Unani medical colleges are concentrated in the three states of U.P., Maharashtra and Bihar. At the time of independence there were more unani colleges than homeopathic colleges in India. The popularity of unani over the years seems to have declined perhaps due to the declining interest in Urdu and Persian languages and literature. Possibly for the same reason, both the practitioners and the clients of Unani have been confined mainly to the Muslim community. The Sanskrit texts of ayurveda have been translated into Hindi and other regional languages as well as into English. These books have a more popular base than the translations of Unani texts, which are not easily available in many Indian languages.

Finally, the periods of growth of educational institutions in ISM and H differ considerably across states: Gujarat during the 1960s, Bihar and Haryana in the 1970s, U.P in the 1960s and 1970s and Maharashtra, Karnataka, M.P and the Punjab in the 1990s. The variation in the patterns of growth as well as the impetus for growth in different states calls for a deeper exploration of the local political and economic alliances and developmental factors. In Maharashtra, one may hypothesise that the opportunity to expand the political and economic bases of the sugar lobby, using Rajiv Gandhi's move to open up the private sector, resulted in the mushrooming of these colleges. These efforts may now benefit from the current political ideology based on cultural nationalism in providing legitimacy for the expansion of ISM colleges, which were started exclusively with a profit motives.

The Pharmaceutical Industry in ISM and H

The pharmaceutical industry is a significant player in health care as it influences the cost and quality of health care services as well as acts as an important source of information. It is an agency that provides continuing education to all categories of practitioners. The industry is continuously expanding in spite of the fact that more than 60,000 allopathic formulations are available in India. While the major issues of quality of drugs, use of banned and spurious drugs, increasing costs, inadequate research and development and

now the issue of WTO regulations are being debated in the context of allopathic care, a rapidly expanding drug industry in ISM and H has not received adequate attention. There are a large number of ISM drugs and products in circulation in India and there is no clear estimate of the volume of their production and their use. For instance, the annual reports state that although the number of drugs mentioned in the ayurvedic classical texts is estimated to be about 15,000, only about 1,500 drugs, mentioned in around 50 texts, are estimated to be currently in use in India. However, there are no uniform standards of preparation of drugs in ISM. Drug Production in ISM is a completely unregulated sector as admitted by the Government in the document 'National Policy on Indian Systems of Medicine and Homeopathy-2002'[43]. According to this document, 'the safety, efficacy, quality of drugs and their rational use have not been assured.... There is no assurance whatsoever that Formularies and Pharmacopoeia standards are being followed by the Indian Systems of Medicine & Homeopathy drug manufacturers.' (p. 4-5). Further, the document states that the lack of enforcement of rules is not the only problem but the secretive and exploitative manner of procuring plant raw materials have not only led to the depletion of plant resources but also to rampant adulteration and substitution of drugs.

It appears that both the traditional as well as the modern sectors of the ISM industry are growing by the increasing number of new products being launched as well as by the annual growth of some of the companies that produce ISM and H products.[44] Both the traditional and the modern sectors[45] have large as well as small manufacturers. Both the categories produce proprietary medicines and a few patented drugs. The products of a number of manufacturers fall in the category of cosmetics, OTC (over the counter) drugs, neutraceuticals or food supplements.

The ISM and H industry in India is estimated to be worth Rs. 4,200 crore with ayurveda alone accounting for more than 80 per cent of the share (Table 9). Large production units in ISM and H industry are few in number, and the manufacture of the bulk of ayurvedic products is carried out through a number of small manufacturers. Although there are nearly 10,000 licensed pharmacies in India (Table 10), the actual volume of pharmaceutical production is difficult to estimate as there could be many small unlicensed producers as well as home based producers especially of ayurvedic medications Table 9: ISM & H Industry in India and Table 10: Number of Licenced Pharmacies in India.

Contemporary ISM Practices: Issues and Concerns

The attempts by the state to regulate ISM medical practices have been feeble so far and there have been no systematic efforts to evaluate the ISM sector. There are several issues related to the contemporary practices of ISM that warrant serious attention. Due to paucity of data on current ISM practices, the issues discussed are based on media reports, anecdotes and observations made by researchers studying allopathic care. Only detailed research in different settings across regions and communities will show the nature and relevance of ISM practices in contemporary India. An attempt is made in the following section to identify some of the important issues and discuss some of the criticisms against ISM. Some of the general criticisms against ISM practices include prescription of allopathic medicines (the 'cross' practices), practice of medicine by untrained persons and authenticity of

[43] Government of India (2003) National Policy on Indian Systems of Medicine and Homeopathy -2002. Ministry of Health.

[44] Cygnus Vol.3, October 2003

[45] Examples of the former include The Kottakkal Arya Vaidya Sala, and The Coimbatore Arya Vaidya Pharmacy. The latter include the Himalaya Drug Company, Zandu Pharmaceuticals, Ajanta Pharma, Dabur etc.

medications and medical claims. Apart from these issues, there are issues of availability of trained ISM practitioners across rural and urban areas, issues concerning degrees and titles and more importantly the issue of erosion of knowledge and that of integration of ISM into the mainstream health care system. Some of these issues have emerged as a result of the historical neglect of the systems by the state and some have resulted from a lack of professionalism within ISM. The state's laxity towards controlling malpractices in health care in general and the ISM sector in particular have led to a situation where health care is emerging as a sector that is controlled by the profit motives of the market.

Absence of Professionalisation

Most people, particularly in rural areas, do not worry much about the qualification of the practitioner (with or without a degree) or the registration status (professional or quack) or the kind of medical system (allopathy, homeopathy or ISM) as long as they get relief and the practitioner is accessible. The apathy of the people, the laxity on the part of the state and a market for health care providers of various kinds have all contributed to the creation of an absurdly large number of titles, degrees, diplomas in ISM and H. Unlike the allopathic doctors who form a relatively homogenous group with regard to their training and professional status, the ISM practitioners are a heterogeneous group.

Based on the nature of training received, the practitioners of ISM and H can be broadly classified into three categories: institutionally trained, non-institutionally trained and untrained practitioners. The first category have received formal training through an institution and hold a degree or diploma. But not all these degrees and diplomas are valid or recognised by the Central Councils of ISM and Homeopathy. The second category of non-institutionally trained practitioners includes those who have completed a period of at least 5 years of apprenticeship under the guidance of a well known trained practitioner. Once again under this category there are well-trained practitioners and those who have neither completed the stipulated years of apprenticeship nor received any useful training. Finally, there are those with no training, formal or informal. Some of them are self-taught using texts and others have picked up skills from 'here and there'. In the field the above classifications are indistinguishable. While the Councils provide the lists of valid degrees, there is no way of knowing the list of invalid degrees/diplomas. It is almost impossible for the learned and the laypersons alike to select a practitioner exclusively on the basis of their training.

Although terms such as 'qualified' and 'trained' have been used frequently in this paper, they represent an array of degrees, diplomas and different qualifying conditions that are difficult to comprehend or even recognise as a medical qualification. For instance, Ashtekar and Mankad[46] in their study of 5 blocks in Nashik district in Maharashtra found 43 different titles being used by the practitioners[47]. The nomenclature and other qualifying conditions have changed several times over the years and vary from state to state. Further, the same form of

[46] Ashtekar, Shyam and Dhruv Mankad (2001) Who Cares? Rural Health Practitioners in Maharashtra, Economic and Political Weekly, Vol. 36, Nos. 5 and 6, 448-453.

[47] They are 1 ABS, 2 AMS, 3 AVV, 4 AV VG, 5 AV VHM, 6 AVR, 7 BAMS, 8 BDS, 9 BEMS, 10 BHB, 11 BHMS, 12 BIAM, 13 BIMS, 14 BOM 15 DMYS, 16 CCH, 17 DAMS 18 DCH, 19 DHB, 20 DHCH, 21 DHMS 22 GFAM, 23 DORL, 24 DSAC, 25 DSCH, 26 DYNS, 27 GAMS, 28 GCAM 29 MD(A), 30 GRMP, 31HMDS, 32 LCEH, 33 LCPS 34 MBBS, 35 MD 36 PMP, 37 MD(G), 38 MEMS, 39 MFAM, 40 MFPAM, 41 MS, 42 NDDA 43, RMP . Ashtekar, Shyam and Dhruv Mankad (2001).

training is called by different names in different places and times[48]. There are Sanskrit and vernacular titles and sometimes there are only abbreviations. In the 1970s, an attempt was made to have uniform titles across the country with titles such as Bachelor of Ayurvedic Medicine and Surgery (B.A.M.S,) and similarly B.U. M. S. for Unani and B.H.M.S. for homoeopathy and B.S.M.S. for Siddha. Very recently, there has been a move to use the Sanskritic versions of these titles. For example, B.A.M.S. is referred to as Ayurveda Acharya and the postgraduate degree in ayurveda (M.D. Ayurveda) as Ayurveda Vachaspati (Government of India 2001). The lack of uniformity in training and qualifications, a feature essential for claiming professional status, has hampered the growth of ISM.

The absence of professionalisation has also led to several practices that are damaging to the systems. Two issues with regard to the type of medicines used by the ISM practitioners are of special concern. Firstly, the (mis)use of allopathic medicines without adequate training and secondly the use of drugs containing high quantities of harmful ingredients such as lead, steroids, etc. The use of allopathic drugs is not restricted to the trained ISM practitioners and is quite common among the untrained practitioners as well.[49] The high doses of harmful substances in many of the ISM medications seems to be a far more serious issue than the common 'cross practices' as the former can result in the failure of vital organs or can be lethal. At present, the mechanisms by the state to control such practices are inadequate and there are no internal safe guards developed by ISM to curb such perilous practices.

Many studies which report the use of allopathic drugs and injections by ISM and homeopathy practitioners, conclude that people are 'tricked' by these 'quacks' through 'irrational' practices. It must be noted however, that some of these practices are no different from what the non-medical staff in PHCs routinely carry out – dispense drugs and give injections in the absence of medical staff. What appears as 'tricking the poor' could also be seen as people's strategy to influence the supply of health care to suit their needs. By demanding 'coloured tablets' (allopathic drugs) and 'sui' (injections) that the private allopaths routinely prescribe or that the PHCs do not stock in sufficient quantities, at a lower price and at their convenience, the local ISM practitioners become conduits between rural people and the distant allopathic care. In this way, people try to overcome the major hurdles in accessing allopathic care. The high cost including that of travel incurred for reaching a private allopathic doctor and the encounter with an indifferent practitioner are thus circumvented. What are generally condemned as illegitimate practices or 'cross practices' are often part of a complex social mechanism of matching the demand and supply of care.

Allopathic medicines dispensed by the ISM practitioners are often compounded at the clinic or repackaged as Rohde and Viswanathan found in their study of rural practitioners of U.P. [50] The ISM practitioners who purchase the drugs in bulk from pharmacies in nearby towns and repack them to bring down the costs of care are in effect acting as agents of allopathy. The local pharmacies are the main sources of information on allopathic drugs for the ISM and H practitioners. Information is also gathered from agencies that carry out various vertical disease control programmes of the government. India produces more drugs than any other country and more than 60 per cent of patients who buy medicines over the

[48] The list of recognised medical degrees in ISM and H on the website of the Ministry runs into more than thirty pages.

[49] Neumann, A.K., J.C. Bhatia, S.Andrew and A.K.S. Murthry (1971) 'Role of the Indigenous Medicine Practitioners in Two Areas of India: Report of a Study', Social Science and Medicine, Vol. 5, 137-39.

[50] Rohde, Jon Eliot and Hema Viswanathan (1995) The Rural Private Practitioner, Delhi, Oxford University Press.

counter do so without a prescription. Large scale unethical use of diagnostic techniques and drugs even within the allopathic system are common[51]. The cost cutting and cross practices of ISM must be viewed in the light of these facts. The misuse by the lower categories of ISM practitioners will be limited to the use of common medicines and saline injections and are likely to be controlled by the high cost of other drugs and diagnostic techniques. The practices that are ridiculed such as the symbolic display of a stethoscope or thermometer or any such equipment can be overlooked in the context of more serious malpractices referred to earlier.

The lack of consensus with regard to interpretations of medical texts and communication of the knowledge across the spectrum of practitioners are two other issues that may come in the way of professionalisation of ISM. The institutional development located in and around urban areas, over the years, has widened the divide between the trained and the untrained practitioners. This certainly would have resulted in the depletion of traditional knowledge, as there has been no attempt so far to strengthen the knowledge base of the traditional practitioners. Further ruptures have occurred in the transmission of knowledge through family tradition as children of relatively better off practitioners are no longer continuing the tradition as it does not increase opportunities for social and economic mobility. The vacuum thus created will be filled, as is always the case, with more and more charlatans.

From Alternative Care to Cosmetic Care

As far as the type of health care services provided by the ISM and H practitioners are concerned, they range from basic primary care to specialised treatment. The data available is insufficient to arrive at any assessment of the volume of the contribution of ISM and H or the quality of services provided. Studies have shown that the practitioners of ISM and H provide basic primary care in places where allopathic care is either unavailable or inaccessible due to the direct or opportunity costs involved. Some of the anthropological studies mentioned earlier, which were carried out in rural areas, show that people's choice of care is determined also by a health culture that classifies ill health into categories based on what is believed to cause these diseases. Such cultural considerations also determine the choice of practitioners or the system of care that villagers seek. From these studies and the author's own observations it is fairly clear that people have no conceptual difficulty in switching between systems or practitioners.[52] What appears to be irrational shopping around for remedies nevertheless has some complex rationale based on local knowledge, peoples' experience of different systems and practitioners, and their material conditions. Different analyses give primacy to one of these factors over the others based on their theoretical and disciplinary positions. Anthropologists tend to focus on the folk health culture and the 'folk classificatory models of illness and cure' while the sociologists and economists focus almost exclusively on the material contexts of diseases and care. However, the actual health care seeking behaviour for each episode of illness may depend on various factors. The nature of choice of medical service by people reveals a complex conceptual bifurcation of illnesses and a structural division of areas of medical care. Illnesses that are seen as non-life threatening, mental illnesses, chronic and lingering ailments are generally seen by people as belonging to the domain of non-allopathic systems. On the other hand, acute and critical conditions clearly pertain to the domain of allopathy.

[51] Greenhalgh, Trisha (1987) Drug Prescription and Self-Medication in India: An Exploratory Survey, Social Science and Medicine, Vol. 25, No. 3, 307-318.

[52] Abraham, L. (1989) Medical Pluralism in Kerala: A Sociological Study. Ph.D. Thesis, University of Bombay, Bombay (unpublished).

The ISM sector expands health care choices available to people as it operates with a broader concept of health taking into account various social and cultural dimensions of illness and care. People from rural areas often use these practitioners because of their overall satisfaction with their experience: low cost, effectiveness and a social interaction that is reassuring. The urban poor also use them because they find them as good or as bad as the allopathic practitioners. The better off urban people use their services for a variety of reasons – in search of an alternative and holistic cure or because they believe these medicines are harmless or because they are just desperate for a cure. Cultural affiliations and family socialisation also influence individual health care habits. For example, it is not uncommon to find migrants from Kerala in a metropolis like Mumbai going in search of ayurvedic medications from the outlets of known ayurveda pharmacies in their home state. Similarly, one often finds educated Bengalis in search of a 'good' homeopath in places where they are now located due to their employment. Over all, the economics of cure, a complex pluralistic health care culture that socialises individuals' orientation to health determines people's 'health care seeking behaviour'. The cultural component may vary in shades and degrees, based on geographic location, caste and community affiliations and educational status. The economics of cure and the culture of health care, in themselves constitute a complex set of factors, and when played out in conjunction with each other and along with other social markers of inequality such as gender, caste, class and ethnic locations, render the health care scenario far more complex. This complexity is not apparent when health care behaviour is viewed from a narrow biomedical perspective merely as treatment of specific diseases. An anthropological perspective sensitises one to the semiotics of health care and forces an analysis of the layers of meanings that are attached to people's relationships to body, birth, death, illnesses, cure and to ecology and cosmos. The former perspective stresses the science of health care while the latter perspective throws light on the art of healing.

In the recent years however, there has been a shift within ISM initiated by the market from being a 'holistic' or alternative health care system to providers of peripheral services. The pharmaceutical industries along with the industries of tourism and cosmetics are increasingly using metaphors drawn from ISM to promote products that are not even remotely concerned with health care. These market driven trends are likely to undermine the value of these systems by reducing them to mere sources of cosmetic care.

Inadequate State Policies and Programmes

As pointed out earlier the state policies and programmes do not reflect any intention of utilising the services of ISM in extending public health care. The institutional development supported by the state has resulted in creating a subordinate layer of service providers who have lost their professional identity[53]. It has also led to the skewed distribution of ISM services across the country. For instance, despite the fact that the less developed state of U.P. and the relatively better developed state of Maharashtra both have an abundant supply of non-allopathic practitioners, trained and untrained, the rural urban distribution of these services remain skewed. The rural areas of Varanasi district, in the 1980s, had between 50-70 traditional practitioners per 1000 population.[54]. These were mainly unqualified practitioners who provided full time or part

[53] They are neither allopathic practitioners (although they gain some knowledge of allopathic subjects) nor are they well trained in their own systems as they are not exposed to the best practices in their own systems. The emphasis on modern scientific development has resulted in their developing a feeling of inferiority or at best has made them poor imitators of the allopathic system. Through this process of allopathisation the ISM practitioners are forced into a defensive position. Such a climate hampers critical interrogation and development.

[54] Shukla, K.P. and C.P. Mishra (1991) 'Traditional Healers in Health Care', in Sociology of Health in India, edited by T.M. Dak, Jaipur, Rawat Publications, 106-122.

time health care of some kind and a majority of them were either illiterate or semi-literate. Although a large proportion of practitioners of ISM and H serve rural areas, studies show that the trained practitioners tend to cluster around more developed regions of the countryside. A recent study in rural Maharashtra shows a practitioner population ratio of 1:1750[55], which includes both, trained and untrained practitioners. The study points out that within rural areas, the economically backward tribal areas are served by fewer trained practitioners of ISM as compared to other relatively prosperous areas. Thus the trained ISM and H practitioners behave much like their counterparts in allopathy in their reluctance to serve economically backward regions. However, the study also found that the more prosperous rural areas have more qualified ISM and H practitioners than allopathic doctors.

While private practitioners of ISM and H serve the rural population, the government-financed institutions such as medical colleges, hospitals and institutions that provide specialist treatment in these systems, are concentrated in urban areas (Table 11). Out of the 600 beds available for specialised treatment in ayurveda, 505 are in urban areas. Extending government services in ISM and H (by college trained practitioners) to the rural areas may be a difficult task, a situation similar to that of allopathic doctors.

The policies of the government will neither attract nor force trained practitioners to the under served areas and populations. Any attempt by the government to identify and ban all charlatans will also be futile. Both these can be achieved only in a society with a critical population of literate and educated persons, where there is some dignity to life beyond the bitter struggle for survival and of course through the spread of critical awareness through political and mass mobilisations. One lesson that the Kerala 'model of development' has shown, a lesson that is not discussed however, is the way its people ensure a steady supply of quality care in *all* medical systems. Of course it has erred by pharmaceuticalising health care and by the overuse of allopathic medical facilities making it one of the state's chief health care problems [56] but tries to balance the ill-effects by seeking antidotes from other systems. In the process the state has accumulated yet another feather in its small cap- the largest consumer of allopathic and non allopathic medicines. This situation is remediable and the next wave of mobilisation will certainly focus on this issue. The essential difference between the two situations is that in one people are pushed further and further into the lap of providence and the other in which people (not individuals) can exercise their right to rewrite health care histories and destinies.

The successive national governments have in recent years actively pursued the processes of formalisation and professionalisation of the ISM and H. A separate department of ISM and H was created under the Ministry of Health and Family Welfare in the year 1995 with the intention of promoting development and propagation of ISM and Homeopathy[57]. Recently, in the year 2003, the Department of ISM and H has been elevated to the status of a separate ministry and is renamed as Ministry of ISM and H, which is also referred to as Ministry of AYUSH (some documents and websites refer to it as Department of AYUSH). However, there are no indications of bringing ISM into the public health care system. From

[55] Ashtekar, Shyam and Dhruv Mankad (2001) Who Cares? Rural Health Practitioners in Maharashtra, Economic and Political Weekly, Vol. 36, Nos. 5 and 6, 448-453.

[56] Saradamma, R. D., Nick Higginbotham and Mark Nichter (2000), 'Social Factors Influencing the Acquisition of Antibiotics Without Prescription in Kerala State, South India', Social Science and Medicine, Vol. 50, 891- 903

[57] The Department is headed by a Secretary to the Government of India who is assisted by a Joint Secretary, four Directors/Deputy Secretaries, four advisors and several Deputy Advisors of Ayurveda, Siddha, Unani and Homeopathy. The administrative set-up of ISM and Homeopathy in various states differ slightly.

the point of view of the development of ISM, these changes are cosmetic in nature and are irrelevant. From a political and ideological point of view such moves may be seen as contributing to cultural nationalism.

Privatisation and Globalisation

Some of the recent trends emerging in the contexts of privatisation and globalisation on the one hand and the growth of cultural nationalism on the other may have important implications for the development of ISM and for achieving universal, community based health care. ISM is ideally located to serve the interests of both cultural nationalism on the one hand and globalisation on the other. Historically ISM was used in furthering cultural nationalism and it can become an ally of such interests in future too. The expansion of markets for specific ISM commodities and services, both domestic and global, diversification into popular 'alternative' and 'holistic' health care, medical tourism and the creation of a large army of private practitioners are likely to bring in a new discourse around ISM. The unregulated private sector growth in health care in a society whose sizable population is disempowered by illiteracy, inadequate food supply and basic amenities of survival can be crippling. The optimistic endorsement of the free play of market forces as equalisers does not seem to hold in the case of primary care in the rural areas. We have seen earlier that the trained ISM practitioners concentrate their services in urban areas and more developed regions. The logic of the market will not drive practitioners who have invested large sums of money in their training through private institutions to rural areas or to cater to the urban poor. They are more likely to be found providing 'alternate care' or 'holistic care' in the urban areas and servicing a growing market that is being created for the middle classes. The furthering of commercial interests through a pharmaceuticalisation of ISM and H may finally lead to a situation wherein the cost of care may escalate and care may be more cosmetic in nature[58].

With the increasing global market for medicinal plants, there is a rush to export them. A WHO projection estimates a global herbal market of US$5 trillion by 2050 from the current level of US$62 billion. The reason for this growth is ascribed to the global trend towards herbal products that are believed to be safer, natural and economical. At present India's share of the global market of US$62 billion is only 0.3 percent. In the year 2002, Indian export of herbal products amounted to Rs. 874.1 crores while that of China was Rs. 9600 crore.[59] However reliable these estimates may be, the point is that both the market in India as well as the government have identified medicinal plants as a potential area for export expansion. Towards this end, the national policy on ISM and H- 2002 advocates the establishment of an Export Authority to boost export capability and a Medicinal Plants Board has been recently established to regulate and to ensure supply of medicinal plants to the pharmaceutical industry. The objective is to meet the stricter international quality requirements for export. One of the consequences will be a further depletion of plant raw materials for the domestic ISM sector, a factor reported to be affecting the quality and quantity of production of medicine.

The bulk of the products of large and medium ayurvedic pharmaceutical industries are food supplements (also called neutraceuticals, a term that camouflages the fact that they are nonessentials), those that fall in the category of tonics and cosmetics and semi-cosmetics (such as medicated hair oils). The proportion of essential medications is negligible and their production is carried out mainly in the traditional sector. Although some of these producers are large and have modernised their

[58] This is already evident in the marketing of selected ayurvedic practices as rejuvenating therapies which are offered for a premium as part of what is called health tourism.
[59] Cygnus, Vol. 3, October 2003.

production technology, they have a restricted clientele. Such skewed growth of ISM products and services, despite the rhetoric of cultural nationalism in contemporary times, is unlikely to strengthen the medical systems.

Universal Health Care Through Integrated Health Services

In an ever expanding, unregulated private sector growth in health care, how can ISM resources contribute to public health problems? As the discussion so far shows, the resources available in the ISM and H sector are vast, varied and useful. The questions that arise are should they continue to grow independently or should they be integrated with the allopathy based public health care system. If the objective of public policy is to make basic health care available to people in an affordable and comfortable manner, then in the present scenario, there seems to be no alternative other than to mobilise all resources towards this end irrespective of the system of cure or practitioners. Studies have shown that the untrained practitioners are willing to undergo training in allopathic care to upgrade their services.[60] The myth that only highly qualified doctors can deal with basic health care has been sufficiently demolished by various experiments of training *dais* and village health workers as well as various NGO experiments of training illiterate or semiliterate persons who successfully provide basic health care in many parts of rural India.[61] China had successfully demonstrated the integration of medical systems decades ago through its 'barefoot doctors'. China's success story may have been partly the result of strictly enforced planning process but at the same time there was a conscious attempt to demystify western medicine and to recognise the role of Chinese medicine in providing primary care.

The colonial and postcolonial history of ISM suggests that the formal integration of medical systems is not an easy task. The study of medical pluralism shows that people resolve issues of medical integration in their everyday life situations by respecting multiple world-views and by adopting a pragmatic approach in the selection of a therapeutic system or a type of practitioner. Such a resolution is not easy at the level of discourse or politics. Such attempts foreground epistemological questions and raise the issue of validating knowledge systems. The wholesome faith entrusted with modern science to validate all knowledge forms will have to be addressed. For any formal integration of ISM and allopathy, a dismantling of the hegemony of allopathy and the hierarchy of medical systems is a requisite and this will be possible only by expanding and democratising the process of knowledge production and validation. Authority based on class, caste, gender, and ethnicity or for that matter scientific methodology or other sources of power will then come under critical interrogation. This may be possible by enhancing the critical role of human agency by increasing access to knowledge and by widespread political participation.[62]

Encouraging learning across borders, through short term courses in different medical systems may be one of the practical ways of initiating the dismantling of hegemony. A critical appreciation of each other is also possible through the sharing of knowledge. There already exists an informal division of areas of expertise and people navigate these divisions using their commonly shared experiences. It would be best to support people's ability to seek care by making information available. Home remedies are commonly used and self medication is

[60] Neumann, A.K., J.C. Bhatia, S.Andrew and A.K.S. Murthry (1971) 'Role of the Indigenous Medicine Practitioners in Two Areas of India: Report of a Study', Social Science and Medicine, Vol. 5, 137-39.
[61] Antia, N.H. and Kavita Bhatia (1993) Peoples Health in People's Hands. Pune, Foundation for Research in Community Health.
[62] Freire, Paulo (1973) Pedagogy of the Oppressed. New York, Herder and Herder

rampantly practised by people throughout India. In such a situation it is wiser to equip people to use health care more judiciously than advise them to stay away from such practices. More specifically, at the organisational level, attempts should be made to include primary as well as specialised care based on ISM in the existing public institutions of health care[63]. By starting integration at the lowest levels of care such as primary care in remote areas, as experimented earlier[64], will reinforce the subordinate status of ISM and such efforts may be subverted, rightly so, by ISM practitioners themselves.

The attempts to integrate medical knowledge and practice will remain inadequate if they are not accompanied by integration at different levels of research and training with a clear objective of working out a model of primary health care based on different systems. The next step should be to develop referral systems to specialised care of different medical systems. The recent move by the government to have a separate ministry of ISM, may succeed in drawing special attention to the needs of ISM, but may sharpen the differences between ISM and allopathy. It is only logical to organise the health ministry according to the type of care primary, secondary and tertiary instead of according to the interests of the medical systems. The existing structure highlights the identity of the medical systems while submerging the issues of health care.

There has been little research into the contribution of the ISM and H, the major developments in this sector over the last fifty years and the future of the different constituents in terms of their potentials and prospects for achieving universal and equitable health care for the country. There is a need to encourage research on the history of ISM, on critical contributions of ISM as well as on issues concerning the erosion of knowledge base and the effects of commoditisation and globalisation on ISM. What ISM really needs to do at the practical level is to critically interrogate its knowledge bases and practices while at the theoretical level provide an alternate world-view, by strengthening its ecological and holistic view of health.

The spread of literacy and education, mass media and expansion of facilities in modern health care especially in the last two decades have influenced people's health care practices. These influences, however, have not widened the gap between allopathy and ISM in people's minds because they see that in practice the gap between systems are narrowing; both rely on the pharmaceutical industry for information, both increasingly engage in syncretic practices, the cost of consultations and drugs are on the rise and an erosion of medical ethics has taken place across the spectrum of practitioners.

Conclusion

However strong the homogenising tendencies of modernity may have been, in the area of health care, a hierarchical medical pluralism continues and with renewed vigour. Historically pluralism has been a characteristic feature of health culture in India with medical systems such as Ayurveda, Unani and Siddha along with numerous traditions of tribal and folk medicines providing basic to specialised care. The encounter with allopathy in the colonial context and the policies of British administration changed the character of medical pluralism from a non-hierarchical to

[63] Specialised care in ISM especially in ayurveda is available in the private sector for those who can afford the high cost.

[64] In the 1980s, some of the state governments (for e.g., Maharashtra) had appointed BAMS and BHMS, degree holders of ayurveda and homeopathy, in PHCs where allopathy doctors refused to serve. However, they were to dispense allopathic medicine. This is reminiscent of the colonial experiment of using indigenous practitioners to take allopathic care to rural India.

a hegemonic and hierarchical pluralism. The colonial and post independent periods brought about major structural and cultural changes in the organisation and practice of ISM. The paths of institutionalisation followed in independent India, modelled on the allopathic system, continue to emphasise the subordinate status and marginal location of ISM. While at the practical level medical pluralism flourished, at the level of discourse, all attempts have been to cleanse the society of the unscientific and the traditional practices through the spread of modern medicine.

The cause of ISM was taken up, although briefly, by the nationalist movement as a weapon against the cultural hegemony of the imperial power, but soon class interests and a development discourse based on modern science dominated over the issue of ISM. Thereafter the state has extended token support to ISM and the subsequent policies reflect different group interests within ISM – those who wanted to modernise and those who wished to reassert its traditional roots. Recent developments promoted by the pharmaceutical sector under privatisation and globalisation have further changed the basic character of these medical systems from being alternative health systems to sources of peripheral health products. The state, pharmaceutical industries and more recently politics rooted in promoting narrow interests of cultural nationalism have charted the course of development of ISM. The impetus for development is not generated from within ISM but is increasingly being driven by narrow political interests and by the dictates of global markets. These interests are reflected in the focus on the export of a few ISM products (almost exclusively of ayurvedic products). Such moves are likely to reduce the significance of ISM to supplier of products such as cosmetics and food supplements rather than strengthen its inherent qualities and capabilities in achieving universal primary health care and providing avenues of alternative care.

Even in a climate of receding welfare measures by the state and the escalating cost of private health care, demand for universal primary health care by integrating resources from various medical systems has not gained significance. While a general understanding of the political economy of health must shape policies, an adherence to seeing people as completely vulnerable who need a prescription for every ailment or as pawns of the market needs serious revision, a revision that accounts for the agency of the people to define their 'needs' and to make 'choices' by expanding and democratising access to knowledge and services. This means taking pluralism into account while planning public health care.

Acknowledgements

I thank Ravi Duggal, Amita Pitre and Leena V. Gangolli of CEHAT for inviting me to write this paper. Manorama Savur, Padma Velaskar and Nakkeeran provided critical comments. I thank Nirmala Momin who meticulously typed many drafts and tables and Justin Thomas who assisted with the tables. K.Subramaniam provided editorial help and valuable criticism.

Figure 1

Classification of Type of Care, System of Care and Type of Practitioners

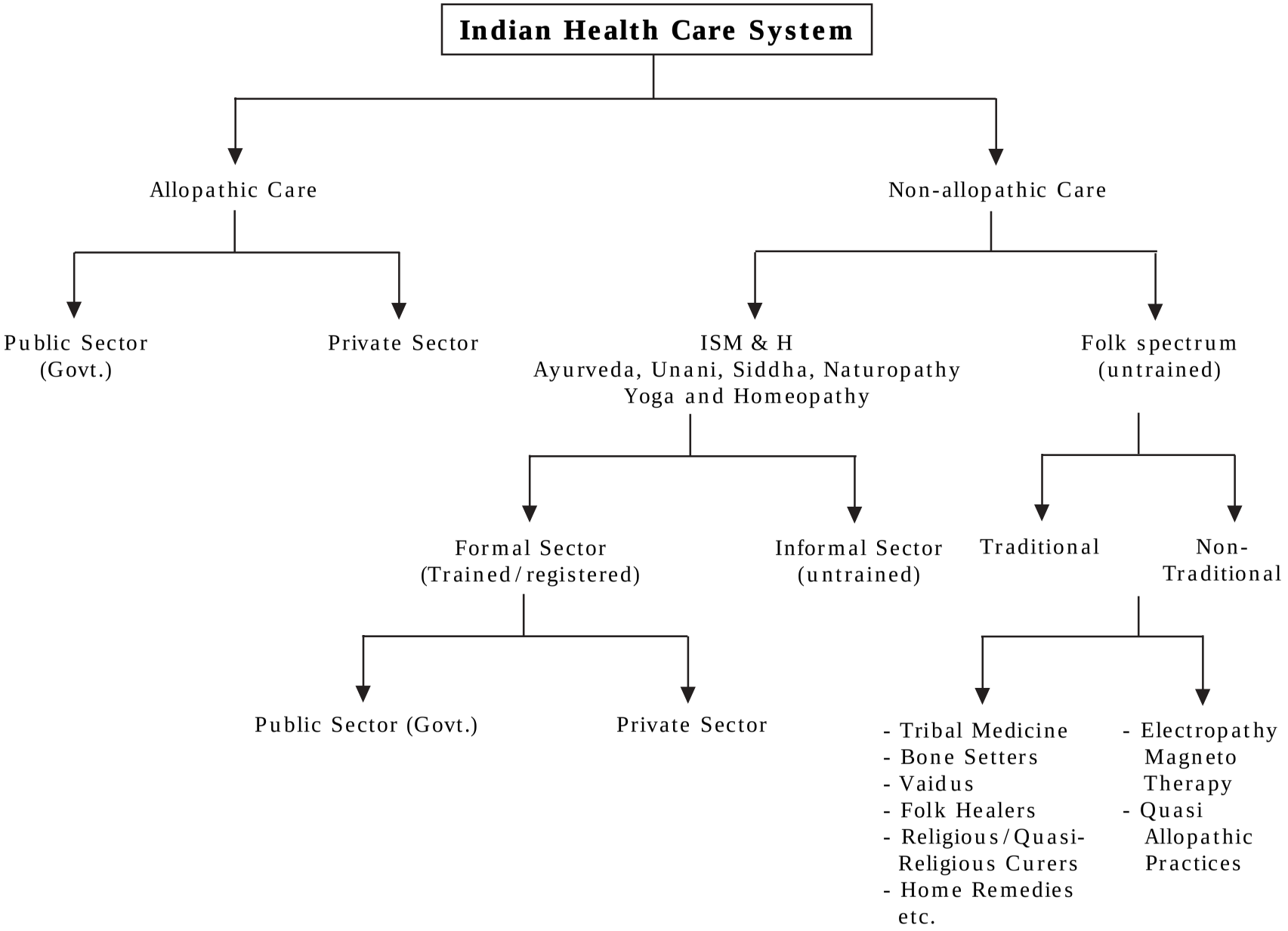


Table 1
Infrastructure in ISM & H Summary (2001)

1. Hospitals	3,841
2. Beds	65,753
3. Dispensaries	23,597
4. Undergraduate Medical Colleges	405
5. Admission capacity	16,845
6. Post-graduate Institutions	77
7. Admission capacity	991
8. Registered Practitioners	6,88,802
9. Plan Outlays	
9th Plan Outlay	*266.35 crores*
Expenditure	*364.43 crores*
10th Plan Outlay	*775.00 crores*

Sources: Tenth Five Year Plan (2002-2007) Health, Sectoral Policies and Programmes. Planning Commission, Govt. of India, Vol. II, pp. 81-164, Indian Systems of Medicine and Homeopathy in India, 2001, Planning and Evaluation Cell, Dept. of ISM an Homeopathy, Ministry of Health and Family Welfare, Govt. of India, New Delhi.

Table 2
Registered Practitioners in Indian Systems of Medicine & Homeopathy

Sr. No.	System of Medicine	Number of Registered Practitioners					
		As on 1.1.2000			As on 1.1.2001		
		IQ	NIQ	Total	IQ	NIQ	Total
1	Ayurveda	330576	96928	427504	333956	96934	430890
2	Unani Medicine	20934	21511	42445	21597	21511	43108
3	Siddha	4381	12218	16599	4613	12484	17097
4	Naturopathy	380	49	429	406	49	455
5	Homeopathy	110317	83830	194147	128142	69110	197252
	Total	466588	214536	681124	488714	200088	688802

Figures are Provisional.

IQ: Institutionally Qualified NIQ: Non-Institutionally Qualified

Source: Compiled from Indian Systems of Medicine and Homeopathy in India, 2001, Planning and Evaluation Cell, Dept. of ISM an Homeopathy, Ministry of Health and Family Welfare, Govt. of India, New Delhi, pp. 87.

Table 3
Number of Hospitals with their Bed Strength under ISM & H as on 1.4.2001

Sr. No.	States/Uts	Ayurveda		Unani		Homeopathy		Total	
		Hosp.	Beds	Hosp.	Beds	Hosp.	Beds	Hosp.	Beds
1	Andhra Pradesh	8	464	6	310	6	300	21	1209
2	Arunachal Pradesh	1	10			1	50	2	60
3	Assam	1	100			3	105	5	230
4	Bihar	11	1120	5	414	11	400	27	1934
5	Chattisgarh					2	115	2	115
6	Delhi	5	535	2	216	3	150	11	951
7	Goa	3	185			1	125	4	310
8	Gujarat	48	1845			14	774	62	2619
9	Haryana	7	695	1	10			8	705
10	Himachal Pradesh	22	390					24	415
11	Jammu & Kashmir	2	100	2	200			5	310
12	Jharkhand	1	120			2	104	3	224
13	Karnataka	118	6937	13	302	21	882	170	8707
14	Kerala	110	2798			32	1070	144	3928
15	Madhya Pradesh	36	1410	2	270	29	1085	67	2765
16	Maharashtra	78	11304	8	1225	83	6277	169	18806
17	Manipur					1	10	3	75
18	Meghalaya							0	0
19	Mizoram							1	14
20	Nagaland							0	0
21	Orissa	8	416			7	175	15	591
22	Punjab	14	1044			6	160	20	1204
23	Rajasthan	80	984	5	120	6	200	93	1326
24	Sikkim							0	0
25	Tamil Nadu	5	425	1	54	11	480	250	2830
26	Tripura	1	10			1	10	2	20
27	Uttar Pradesh	2047	10477	252	1619	36	399	2335	12495
28	Uttaranchal	322	1605	2	8	10	8	334	1621
29	West Bengal	3	309	1	100	14	671	18	1080
30	A & N Islands							1	10
31	Chandigarh	1	150			1	25	2	175
32	D & N Haveli							0	0
33	Daman & Diu							0	0
34	Lakshadweep							0	0
35	Pondicherry							0	0
36	C.G.H.S.	1	25					1	25
37	Cent. Res. Councils	22	515	12	280	6	119	42	999
38	M/o Railways							0	0
39	M/o Labour							0	0
40	M/o Coal							0	0
	Total	2955	43973	312	5128	307	13694	3841	65753

Figures are Provisional.

Source: Indian Systems of Medicine and Homeopathy in India, 2001, Planning and Evaluation Cell, Dept. of ISM an Homeopathy, Ministry of Health and Family Welfare, Govt. of India, New Delhi, pp. 46-47.

Table 4
Statewise Number of Dispensaries under ISM & H as on 1.4.2001
(including Government, Local Bodies and Others)

Sr. No	States/U.T./Others	Ayurveda	Unani	Siddha	Homeo-pathy	Yoga	Naturo-pathy	Amchi	Total
1	Andhra Pradesh	1437	195	-	290				1922
2	Arunachal Pradesh	2		-	41	1			44
3	Assam	329	1	-	75	25	2		432
4	Bihar	522	128	-	181				831
5	Chattisgarh								0
6	Delhi	132	18	-	88				238
7	Goa	59	-	-	16				75
8	Gujarat	821	-	-	216		8		1045
9	Haryana	424	20	-	20				464
10	Himachal Pradesh	1112	3	-	14			5	1134
11	Jammu & Kashmir	240	178	-				25	443
12	Jharkhand								0
13	Karnataka	590	51	-	42		11		694
14	Kerala	713	1	6	2804				3524
15	Madhya Pradesh	2086	56	-	202				2344
16	Maharashtra	463	23	-	-				486
17	Manipur	-	-	-	9		1		10
18	Meghalaya	-	-	-	7				7
19	Mizoram		-	-	1				1
20	Nagaland	-	-	-	2				2
21	Orissa	524	9	-	503	35	30		1101
22	Punjab	481	26	-	105				612
23	Rajasthan	3486	79	-	121		3		3689
24	Sikkim	-	-	-	1			3	4
25	Tamil Nadu	11	6	326	41	1	1		386
26	Tripura	30	-	-	66				96
27	Uttar Pradesh	650	148	-	1376				2174
28	Uttaranchal	70	-	-	48				118
29	West Bengal	285	-	-	899				1184
30	A & N Islands	-	-	-	8				8
31	Chandigarh	6	-	-	5				11
32	D & N Haveli	4	-	-	1				5
33	Daman & Diu	1	-	-	-				1
34	Lakshadweep	2	-	-	1				3
35	Pondicherry	11	-	13	1				25
36	C.G.H.S.	32	10	2	34	3			81
37	Cent. Res. Councils	6	5	2	40			1	54
38	M/o Railways	38	-	-	124				162
39	M/o Labour	126	1	3	29				159
40	M/o Coal	28	-	-	-				28
	Total	14721	958	352	7411	65	56	34	23597

Figures are Provisional.

Source: Indian Systems of Medicine and Homeopathy in India, 2001, Planning and Evaluation Cell, Dept. of ISM an Homeopathy, Ministry of Health and Family Welfare, Govt. of India, New Delhi, pp. 48.

Table 5
Growth of Registered Practitioners under ISM & H since 1980 (As on 1st January)

Year	Ayurveda			Unani			Siddha			Homeopathy			Total		
	IQ	NIQ	Total	IQ	NIQ	Total	IQ	NIQ	Total	IQ	NIQ	Total	IQ	NIQ	Total
1980	88265	83893	220497	7049	11080	27166	1594	16577	18171	26703	79209	105912	123611	190759	371746
1985	100085	96319	251071	8219	16101	28382	1156	10376	11532	43966	79886	123852	153426	202682	414837
1990	216344	100926	337966	13116	21314	35350	1467	10334	11801	69194	79513	148707	300121	212087	533824
1995	251262	104554	355816	16809	24018	40827	2103	10334	12437	89309	83314	172623	359483	222220	581703
2000	330576	96928	427504	20934	21511	42445	4381	12218	16599	110317	83830	194147	466588	214536	681124
2001	333956	96934	430890	21597	21511	43108	4613	12484	17097	128142	69110	197252	488714	200088	688802

Figures are Provisional.
IQ: Institutionally Qualified
NIQ: Non-Institutionally Qualified
Note: Total of IQ and NIQ registered Practitioners of Ayurveda and Unani may not tally for some years as break-up has not been furnished by some States/UTs.

Source: Compiled from Indian Systems of Medicine and Homeopathy in India, 2001, Planning and Evaluation Cell, Dept. of ISM and Homeopathy, Ministry of Health and Family Welfare, Govt. of India, New Delhi.

Table 6
Number of Registered ISM & H Practitioners (IQ + NIQ)
Per Lakh Population as on 1.1.2001

Sr. No.	Name of the State/U.T.	ISM & H Doctors as on 1.1.2001 (IQ+NIQ)	ISM & H Doctors per lakh of population (as per 2001 Census)
1	Andhra Pradesh	28765	38
2	Arunachal Pradesh	-	-
3	Assam	714	2.7
4	Bihar	161010	146.7
5	Goa	-	-
6	Gujarat	22096	43.7
7	Haryana	26031	123.5
8	Himachal Pradesh	8466	139.3
9	Jammu & Kashmir	505	5
10	Karnataka	18442	35
11	Kerala	22968	72.1
12	Madhya Pradesh	55227	68
13	Maharashtra	80950	83.7
14	Manipur	-	-
15	Meghalaya	229	9.9
16	Mizoram	-	-
17	Nagaland	1996	100.4
18	Orissa	8781	23.9
19	Punjab	33429	137.6
20	Rajasthan	32458	57.5
21	Sikkim	-	-
22	Tamil Nadu	36538	58.8
23	Tripura	-	-
24	Uttar Pradesh	94163	54
25	West Bengal	44689	55.7
26	A & N Islands	-	-
27	Chandigarh	297	33
28	D & N Haveli	-	-
29	Daman & Diu	-	-
30	Delhi	11048	80.2
31	Lakshadweep	-	-
32	Pondicherry	-	-
	INDIA	688,802	67.1

Figures are Provisional.
IQ: Institutionally Qualified NIQ: Non-Institutionally Qualified
Figures of Jharkhand are included in Bihar, Chattisgarh in Madhya Pradesh and Uttaranchal in Uttar Pradesh.

Source: Compiled from Indian Systems of Medicine and Homeopathy in India, 2001, Planning and Evaluation Cell, Dept. of ISM an Homeopathy, Ministry of Health and Family Welfare, Govt. of India, New Delhi, p.88.

Table 7
Statewise Distribution of ISM and Homeopathy Medical Colleges in India and Their Admission Capacity as on 1.04.2001

Sr. No	Name of the States/U.Ts.	Ayurveda						Unani						Homeopathic					
		Govt.		Others		Total		Govt.		Others		Total		Govt.		Others		Total	
		No. Colleges	Adm Capacity	No. Colleges	Adm Capacity	No. Colleges	Adm Capacity	No. Colleges	Adm Capacity	No. Colleges	Adm Capacity	No. Colleges	Adm Capacity	No. Colleges	Adm Capacity	No. Colleges	Adm Capacity	No. Colleges	Adm Capacity
1	Andhra Pradesh	3	110	1	40	4	150	1	50	1	50	2	100	4	155	-	-	4	155
2	Assam	1	50	-	-	1	50	-	-	-	-	-	-	3	90	-	-	3	90
3	Arunachal Pradesh	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	50	1	50
4	Bihar	5	38	7	140	12	178	1	40	4	170	5	210	1	80	10	550	11	630
5	Chattisgarh	1	55	-	-	1	55	-	-	-	-	-	-	-	-	2	125	2	125
6	Delhi	1	40	-	-	1	40	1	40	1	50	2	90	2	100	-	-	2	100
7	Goa	-	-	1	40	1	40	-	-	-	-	-	-	-	-	1	50	1	50
8	Gujarat	5	209	4	153	9	362	-	-	-	-	-	-	-	-	14	975	14	975
9	Haryana	1	UP	4	200	5	200	-	-	-	-	-	-	-	-	-	-	-	-
10	Himachal Pradesh	1	50	-	-	1	50	-	-	-	-	-	-	-	-	-	-	-	-
11	Jammu & Kashmir	-	-	1	40	1	40	-	-	2	40	2	40	-	-	-	-	-	-
12	Jharkhand	-	-	1	40	1	40	-	-	-	-	-	-	-	-	2	100	2	100
13	Karnataka	3	150	44	1585	47	1735	1	50	2	60	3	110	1	40	11	555	12	595
14	Kerala	3	120	2	90	5	210	-	-	-	-	-	-	2	100	2	100	4	200
15	Madhya Pradesh	7	155	2	70	9	225	1	30	2	90	3	120	1	50	15	1075	16	1125
16	Maharashtra	4	220	53	2480	57	2700	-	-	6	250	6	250	-	-	43	3305	43	3305
17	Orissa	3	90	3	60	6	150	-	-	-	-	-	-	4	125	3	115	7	240
18	Punjab	1	30	9	360	10	390	-	-	-	-	-	-	-	-	5	290	5	290
19	Rajasthan	2	120	2	80	4	200	-	-	3	50	3	50	-	-	4	150	4	150
20	Tamil Nadu	-	-	4	100	4	100	1	40	-	-	1	40	1	50	10	500	11	550
21	Uttaranchal	2	NP	1	NP	3	NP	-	-	1	NP	1	NP	-	-	-	-	-	-
22	Uttar Pradesh	9	90	3	40	12	130	3	140	7	230	10	370	10	NA	-	-	10	NA
23	West Bengal	1	60	-	-	1	60	-	-	1	30	1	30	5	250	8	350	13	600
24	Chandigarh	-	-	1	40	1	40	-	-	-	-	-	-	-	-	1	50	1	50
	Total	53	1587	143	5558	196	7145	9	390	30	1020	39	1410	34	1040	132	8340	166	9380

NP: Not Permitted UP: Under Process NR: Not Reported NA: Admission not allowed for the year 2000-2001.
Admission capacity of 33 ayruveda colleges is not available.

Source: Compiled from Indian Systems of Medicine and Homeopathy in India, 2001, Planning and Evaluation Cell, Dept. of ISM an Homeopathy, Ministry of Health and Family Welfare, Govt. of India, New Delhi.

Table 8
Growth of ISM and Homeopathy Medical Colleges in India

Year	Ayurveda			Unani			Homeopathy		
	Govt.	Non-Govt.	Total	Govt.	Non-Govt.	Total	Govt.	Non-Govt.	Total
Before 1950	21	12	33	6	3	9	5	3	8
1951-1960	9	11	20	0	1	1	1	10	11
1961-1970	7	5	12	1	1	2	12	12	24
1971-1980	10	15	25	2	1	3	10	23	33
1981-1990	2	21	23	2	5	7	5	31	36
1991-2000	3	72	75	2	11	13	3	46	50
2001 (upto April)	0	1	1	-	-	-	0	1	1
Information not available	1	6	7	1	3	4	-	4	4
	53	143	196	14	25	39	36	130	166

Source: Compiled from Indian Systems of Medicine and Homeopathy in India, 2001, Planning and Evaluation Cell, Dept. of ISM an Homeopathy, Ministry of Health and Family Welfare, Govt. of India, New Delhi.

Table 9
ISM & H Industry in India

Rs. 4,200 crore industry (ayurveda accounts for Rs. 3,500 crore)		
7,000 manufacturers of ayurvedic products		
Large	(> Rs. 50 crore)	10
Medium	(Rs. 5-10 crore)	25
Small	(Rs. 1-5 crore)	965
Very Small	(<Rs. 1 crore)	6,000

Source: Dept. of ISM & H 2001 Tenth Five Year Plan (2002-2007) Health, Sectoral Policies and Programmes. Planning Commission, Govt. of India, Vol. II.

Table 10
Licensed Pharmacies in India

Ayurveda	***8,533***
Unani	462
Siddha	385
Homoepathy	613
Total	9,992

Source: Dept. of ISM & H 2001 Tenth Five Year Plan (2002-2007) Health, Sectoral Policies and Programmes. Planning Commission, Govt. of India, Vol. II.

Table 11
Rural-urban Distribution of Specialised Treatment Available Under the Various Central Councils of ISM and Homeopathy

Sr. No	Name of the Facility	Urban			Rural			Total		
		No. of facility	Doctors	Beds	No. of facility	Doctors	Beds	No. of facility	Doctors	Beds
1	Specialised Treatment in Ayurveda (Hospitals and Dispensaries)	26	134	505	7	21	95	33	155	600
2	Specialised Treatment in Unani Medicine (Hospitals and Research Units)	17	97	280	-	-	-	17	97	280
3	Specialised Treatment in Homeopathy (Hospitals and Research Units)	36	86	44	10	30	75	46	116	119
4	Treatment-cum-propagation centres and patient care centres in Yoga and Naturopathy	41	60	715	19	27	550	60	87	1265
5	Hospitals and Dispensaries of Amchi and Tibetan System of Medicine	-	-	-	-	-	-	70	-	25
	Grand Total	120	377	1544	36	78	720	226	455	2289

Source: Compiled from Indian Systems of Medicine and Homeopathy in India, 2001, Planning and Evaluation Cell, Dept. of ISM an Homeopathy, Ministry of Health and Family Welfare, Govt. of India, New Delhi.

Appendix I
Developments in the History of Ayurveda in the 20th Century

Year	Important Events	Observations, Outcomes
1907	Establishment of All India Ayurveda Mahasammelan (Ayurvedic Congress)	Professional interest group of Indigenous practitioners
1917	Dr. Komar Commission (one-man commission)	To investigate the indigenous system; of medicine
1920	Indian National Congress Convention at Nagpur	Recommended acceptance of Ayurvedic system of medicine in India's National Health Care System
1920	Indian National Congress	Demanding Government patronage for Ayurveda-Provincial Government began to grant assistance.
1921-22	Bengal Government Committee	—
1921	Committee on Indigenous Systems of Medicine, Madras	—
1925	Committee of Ayurvedic and Unani System, United Provinces	—
1925	Council of State Boards and Faculty of ISM	—
1926	Committee on Indigenous Systems of Medicine, Ceylon	—
1928	Committee of Enquiry into the Indigenous Medicine, Burma	—
1937	Committee appointed to examine indigenous system of Medicine C.P. and Berar	—
1938	Indigenous Medicine enquiry committee, Punjab	—
1942	A Committee to go into the question of enquiring into the indigenous system of medicine, Mysore	—
1945	Bhore committee, Government of India	Proposed the creation of a chair of history of medicine in medical Colleges in India.
1945	First Health Minister	Strongly worded resolution stating that provision should be made for training and research in indigenous system of medicine. Persons trained in the system may be absorbed in the state health organisations
1946	Utkal Ayurvedic committee, Orissa	—
1947	Indian systems of medicine, Enquiry committee, Bombay.	—
1947	Screening committee to report on the steps to be taken for the development of Ayurveda in Assam.	—
1947	Government of United Provinces set up reorganisation committee of Ayurvedic and Unani system	—
1946-48	Chopra committee (Prof. R,N. Chopra, Government of India	Made recommendations about general education of students and teachers, control of education research, drug standardisation, medical relief and integration

Year	Important Events	Observations, Outcomes
1955	Dave Committee (Shri. D.T.Dave)	Establishing standards in respect of education and regulation of the practice of ISM.
1956-57	Establishment of Institute of Post-Graduate Training and Research in Gujarat Ayurvedic University, Jamnagar, Gujarat	—
1958	Pharmacopoeial Laboratories for ISM at Ghaziabad	To mark out standards and develop tests for single drugs and compound formulations
1959	UDUPA Committee (Prof. K.N. Udupa) Govt. of India to assess and evaluate the present status of ayurvedic system of medicine	Suggested measures to be applied for research in ayurveda and their recommendation helped in creation of post-graduate institute of medicine, Banaras Hindu University, Varanasi. Central Council for research in Indian systems of medicine and creation of composite drug research schemes.
1959	Mudaliar Committee (Dr. L/Mudaliar)	—
1961	G.Borker Health in independent India by Ministry of Health, Government of India, New Delhi	- reviewed the overall development of ISM till that time.
1962	Pandit Committee (Pt. G.C.Pandit), Govt. of India	Helped in the establishment of Jamnagar institute of ayurveda.
1962	Ayurveda Pharmacopoeia	—
1962	Vyas Committee (Sh. Mohan Lal P. Vyas, health Minister of Gujarat on a resolution passed by central council of health in the annual meeting	Helped in creation of Shuddha Ayurvedic board. Draft syllabus for professional Shuddha ayurvedic degree
1963-64	Establishment of Post Graduate Institute of Ayurveda at Banaras Hindu University, Varanasi, Uttar Pradesh	—
1969	Central council for Research in Indian Medicine and Homeopathy	Established as autonomous body for organising research in ISM and Homeopathy
1969	Drug and cosmetic act, 1940	Amendment approved by the Parliament to include ISM Medicines/drugs
1976	Publication of Part - I of Ayurvedic formulary containing 444 preparations	—
1976	Establishment of National Institute of Ayurveda, Jaipur	—
1976-77	Development of State ISM pharmacies including drug tests laboratories (Centrally sponsored scheme)	For the Development of ISM pharmacies
1978	Central council for research in Ayurveda and Siddha	Central council for research in Indian medicine and homeopathy was bifurcated into four councils and out of these, one devoted to ayurveda and Siddha is called central council for research in ayurveda and Siddha
1981	Indian Medicines Pharmaceutical Corporation Limited (IMPCL) at Mohan, in Almora, Uttar Pradesh.	To supply medicines to Government institutes or research units and also for open market in due course.
1989 1995	National Academy of Ayurveda Creation of separate Department of Indian Systems of Medicine & Homeopathy in Ministry of Health & Family Welfare, Govt. of India	— —

Year	Important Events	Observations, Outcomes
1997	Implementation of Central Scheme in 33 organisations for development of agro-techniques of important medicinal plants	—
1998	Implementation of Central Scheme in 32 laboratories for developing pharmacopoeial standards of Medicinal Plants/ISM Formulations	—
1998	Establishment of speciality clinic of Ayurveda in Central Govt. Hospital (Safdarjung Hospital) New Delhi	—
1998-99	Implementation of IEC (Information, Education and Communication) Scheme for NGOs for propagation and popularisation of Ayurveda & other systems	—
1999	Introduction of Vanaspati Van Scheme for large scale cultivation of Medicinal Plants	—
2000	Publication of 2nd volume of Ayurvedic Pharmacopoeia	—
2000	Introduction of 7 Ayurvedic Medicines in RCH Programme	—
2000	Constitution of Advisory group for research in Ayurveda	—
2000-01	Implementation of Central Scheme of assistance for strengthening of State Drug Testing Laborites and Pharmacies	—
2001	Publication of 3rd volume of Ayurvedic Pharmacopoeia	—
2001	Publication of English edition of 2nd volume of Ayurvedic Formulary of India	—
2002	Task force set up to strengthen Indian Systems of Medicine	—
2002	National Policy on Indian Systems of Medicine and Homeopathy	—
2003	Establishment of Medicinal Plants Board Ministry of AYUSH	—

Compiled from Annual Reports for various years and website of the ISM & H, Government of India.

Public Health Expenditures, Investment and Financing Under the Shadow of a Growing Private Sector

Ravi Duggal

Introduction

Access to healthcare with equity and universal coverage is critically linked with public financing of healthcare services. Countries that have near universal access and relative equity in access to healthcare have organised healthcare systems where public financing accounts for over two-thirds of healthcare spending.[1] Health outcomes like infant mortality rate, life expectancy, under-5 mortality rate are also intimately associated with the proportion of public investment in the health sector. It is not only in developed countries like Canada, Australia, Sweden, United Kingdom etc. where we see such association but also in a number of developing countries that are not very different from the level of economic development in India. Thus countries like Sri Lanka, China, Costa Rica, Thailand, South Korea, Turkey, which have in recent years put in efforts at organising their healthcare systems and where larger public budgets are allocated to healthcare, have far out performed India in health achievements.

The pattern of development of the health sector is closely linked to the political economy and the level of economic development. While economic development can create conditions for better access to healthcare as well as a better average standard of living and hence improved health outcomes, a political economy based largely on private health financing can create large adversities for health not only for the poorer sections of society but also the middle classes. Thus the role of public financing is critical in both developed and underdeveloped economies. In most developed countries where healthcare access is near universal, public financing whether through state revenues and/or social insurance, has been the critical component in realising universal access with equity.[2, 3]

Further, health and development cannot be seen only in terms of averages because differences across regions and within them may be very sharp. Thus the true test of equity and universal access would mean that irrespective of geographic, financial and social differentiation healthcare is accessible to all and this gets reflected in reduced class and geographical differentials of health outcomes, as has happened in the countries referred to above. Such an achievement is only possible with larger public investment and expenditures in the health sector. This is the missing link in India. At one level there are rural-urban hierarchies in type and quality of health services available to the urban sectors, which take away most of the curative care budget and often two to three times the resources in proportion to their strength in the population, and at another level rural areas get mostly preventive and promotive services like family planning, immunisation, ante-natal care and disease surveillance for selected communicable diseases. At another level there are sub-regional hierarchies in the form of pockets of growth (industrial centres, green revolution areas) and exclusion of sub-regions in development (adivasi areas, remote and hilly terrains). Equitable distribution of health resources across various regions and sub-regions can improve access to healthcare

[1] WHO, 2002: World Health Report 2001, WHO, Geneva
[2] Roemer, Milton, 1985: National Strategies for Health Care Organisation, Health Administration Press
[3] OECD, 1990 : Health Systems in Transition, Organisation for Economic Cooperation and Development, Paris

as well as health outcomes substantially, even in the absence of economic development. Thus state intervention in the health sector can make a tremendous difference to the health of the people, especially those who are economically and socially underprivileged.

While India lost the opportunity of implementing a national healthcare system immediately following Independence via the Bhore Committee[4] recommendations and made very poor investments in the public health sector over the years, the mid-seventies became a turning point for major investments, especially in rural India via the Minimum Needs Program. The 5th to 7th Plan period may be regarded as the 'golden era' of public health sector performance in India when not only public investments and expenditures in healthcare peaked but also health outcomes witnessed substantial improvements.

The achievements of the public health sector made during the eighties in improving health outcomes received a set back with the economic crises of 1991 and the subsequent economic reforms which followed under the Structural Adjustment Program (SAP) strategy commandeered by the World Bank. As mentioned earlier, during the 5th to 7th Plan period public health services and public health investment were relatively robust and this got reflected in faster improvements in health outcomes, to begin with in developed states and soon followed by the underdeveloped. This approach received a set back at the turn of the nineties when resource commitments in the public health sector declined, and especially so in the developed states.

This is reflected at one level in slowing down of improvements in health outcomes and the widening rural-urban gap of these outcomes. At yet another level the public health care facilities are getting incapacitated because the necessary inputs that are needed to run these facilities are not being adequately provided for. The 2002 National Health Policy unashamedly acknowledges that the public healthcare system is grossly short of defined requirements, functioning is far from satisfactory, that morbidity and mortality due to easily curable diseases continues to be unacceptably high, and resource allocations generally insufficient:

"It would detract from the quality of the exercise if, while framing a new policy, it is not acknowledged that the existing public health infrastructure is far from satisfactory. For the out-door medical facilities in existence, funding is generally insufficient; the presence of medical and paramedical personnel is often much less than required by the prescribed norms; the availability of consumables is frequently negligible; the equipment in many public hospitals is often obsolescent and unusable; and the buildings are in a dilapidated state. In the in-door treatment facilities, again, the equipment is often obsolescent; the availability of essential drugs is minimal; the capacity of the facilities is grossly inadequate, which leads to over-crowding, and consequentially to a steep deterioration in the quality of the services."[5].

This is largely caused by compression of public spending in the health sector and secondly due to allocative inefficiencies caused by unprecedented increases in salaries as a consequence of the 5th Pay Commission implementation (around 1996-1998). Non-salary components have shrunk considerably as budget increases do not factor for allocative efficiencies for effective running of the public health system. This coupled with privatisation policies, including introduction and/or increase in user charges, have taken the public health system to the brink of collapse.

[4] Bhore, Joseph, 1946 : Report of the Health Survey and Development Committee, Volume I to IV, Govt. of India, Delhi

[5] MoHFW, 2002: National Health Policy 2002, *para 2.4.1*, GOI, New Delhi

With greater dependence on the market for healthcare, access becomes more difficult for an increasing number of people.

The evidence for this is clearly brought out in the changes one sees across the 42nd and 52nd Round NSS surveys[6], when over this decade utilisation of private health services, especially in the hospital sector, increases substantially, out-of pocket spending gallops, indebtedness due to healthcare affects nearly half the users and the proportion of non-utilisation also increases. This coupled with poor commitment of public resources to healthcare is the main cause for poor health outcomes in.

In fact, when we relate health outcomes with expenditures we see that in comparison to similarly developed countries India's performance is the worst despite India having one of the highest total health expenditures amongst these countries.[7] This is largely due to the fact that in India the spending is mostly out-of-pocket because public resources committed are very low. In a scenario of poverty such a mechanism of financing will never show up good health outcomes because out-of-pocket health expenditures for the poor as well as the not so poor means foregoing other basic needs or worse still getting into indebtedness. National surveys show loans for healthcare to be the number one reason for families, especially the poor, getting trapped into indebtedness.[8] This is unflinching evidence supporting the hypothesis of criticality of public financing for good healthcare and health outcomes.

Another dimension of the reform process is that of disinvestments by the state in economic activities. This is supposed to release resources for a larger role of the state in social sectors -the 'human face' in the reforms/adjustment process. While divestment of public sector undertakings has been taking place, there is no evidence of increased support to the social sectors like health and education. This is perhaps due to the simultaneous shrinking of state revenues due to cuts in tax rates, excise duties etc. which reduces the states share in the national income, that is declining Tax/GDP ratios (from a peak of over 16 per cent in the mid-eighties currently down to 13 per cent)[9]. This trend is in itself a threat to public spending because not only are the promised additional resources not available for the social sectors but also some support which was available through public sector enterprises is now getting diminished and is already getting reflected in increased unemployment ratios which are up

[6] NSS-1987:Morbidity and Utilisation of Medical Services, 42nd Round, Report No. 384, National Sample Survey Organisation, New Delhi; and NSS-1996:Report No. 441, 52nd Round, NSSO, New Delhi, 2000

[7]

Health Outcomes in Relation to Health Expenditures

	Total Health Expenditure as % of GDP	Public Health Expenditure as % of total	U-5 Mortality	Life Expectancy	
				Male	Female
India	5	17	95	59.6	61.2
China	2.7	24.9	43	68.1	71.3
Sri Lanka	3	45.4	19	65.8	73.4
Malaysia	2.4	57.6	14	67.6	69.9
South Korea	6.7	37.8	14	69.2	76.3

Source: Changing the Indian Health System – Draft Report, ICRIER, 2001

[8] NSS-1987:Morbidity and Utilisation of Medical Services, 42nd Round, Report No. 384, National Sample Survey Organisation, New Delhi; and NSS-1996:Report No. 441, 52nd Round, NSSO, New Delhi, 2000

[9] DEA, 2003: Economic Survey 2002-03, GOI, New Delhi

from around 2 per cent in the eighties to over 7 per cent presently[10]. Further, data from countries having near universal access to healthcare and/or having much better health outcomes than India shows that Tax/GDP ratios in those countries are in the range of 20-45 per cent[11]. For instance the OECD group of countries which have most of the countries with universal healthcare access average a Tax/GDP ratio of 37 per cent[12]. What is worse in India is that the tax revenues are largely indirect taxes, which means that the burden of taxes is greater on the poorer sections of society. In India the direct tax proportion is only about 20 per cent[13] as compared to most other countries, especially those with reasonable social security support mechanisms, where it is between 45 and 65 per cent.[14]

The social sectors, which are of primary importance for human resource development, are critically dependent on public financing. The latter becomes even more important in the context of poverty because such support creates equity even with high levels of income poverty. In India three-fourths of the people live below or at subsistence levels. This means 70-90 per cent of their incomes goes towards food and related survival consumption. In such a context social security support for health, education, housing etc. becomes critical. Ironically, India has one of the largest private health sectors in the world with over 80 per cent of ambulatory care and 65 per cent of hospitalisations being supported through out-of-pocket expenses.

The public curative and hospital services are mostly in the cities. Rural areas have mainly preventive and promotive services like family planning and immunisation. The private sector has a virtual monopoly of ambulatory curative services in both rural and urban areas and nearly two-thirds of hospital care. Further, a very large proportion of private providers are not qualified to provide modern healthcare because they are either trained in other systems of medicine (traditional Indian systems like ayurveda, unani and siddha, and homoeopathy) or worse, do not have any training, and these are the providers who the poor are most likely to seek healthcare from. In the underdeveloped states the proportion of unqualified or inadequately trained practitioners is much higher. This adds to the risk faced by the already impoverished population. The healthcare market is based on a supply-induced demand and keeps growing geometrically, especially in the context of new technologies. The cost of seeking such care is also increasing. This means that the already difficult scenario of access to healthcare is getting worse, and not only the poor but also the middle classes get severely affected.[15] Thus India has a large, unregulated, poor quality, expensive and dominant private health sector, and an inadequately resourced, selectively focused and declining public health sector despite its poverty, with the former having curative monopoly and the latter carrying the burden of preventive services.

The total value of the health sector in India today is over Rs.1500 billion or US$ 34 billion. This works out to about Rs.1500 per capita which is 6 per cent of GDP (see Table 1 below). Of this 15 per cent is publicly financed, 4 per cent is from social insurance, 1 per cent

[10] DEA, 2003: Economic Survey 2002-03, GOI, New Delhi
[11] World Bank, 2001: World Development Report 2000/2001, Oxford, Washington DC
[12] http://www.oecd.org/document/8/0,2340,en_2649_201185_1962312_119690_1_1_1,00.html (download date 26/12/2003)
[13] Ghosh, Jayati, 2001: Who Pays the Taxes, Frontline, Vol. 18 No. 11, May 26
[14] same as footnote 11
[15] The 52nd Round NSS data reveals that for inpatient care 46% of poorer classes and 34% of the richer classes either sold assets or took loans to pay for treatment. And those using private hospitals were 16% more likely to get into indebtedness than those using public hospitals. (NSS-1996: Report No. 441, 52nd Round, NSSO, New Delhi, 2000)

Table 1
Financing Healthcare in India 2003

	Estimated users in millions	Expenditure (Rs. Billions)
Public Sector	**250@**	**252 (17)***
Of which Social Insurance	55	30 *(2)*
Private Sector	**780@**	**1250 (83)****
Of which social insurance	*30*	*24 (1.6)*
Private insurance	*11*	*11.5 (0.8)*
Out of Pocket	*739*	*1214.5 (80)*
Total	**1030**	**1552 (100)**

@ Estimates based on National Sample Survey 52nd Round, and Labour Year Book
* Finance Accounts of Central and State Governments, and Labour Year Book
** Private Final Consumption Expenditure from National Accounts Statistics
Figures in parentheses are percentages

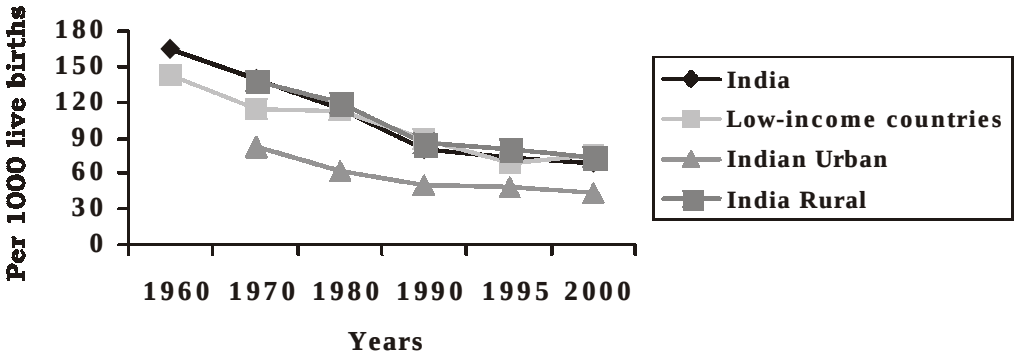
private insurance and the remaining 80 per cent being out of personal resources as user-fees (85 per cent of which goes to the private sector). Two thirds of the users are purely out-of-pocket users and 90 per cent of them are from the poorest sections. The tragedy is that in India, as elsewhere, those who have the capacity to buy healthcare from the market most often get healthcare without having to pay for it directly, and those who are below the poverty line or living at subsistence levels are forced to make direct payments, often with a heavy burden of debt, to access healthcare from the market. National data reveals that 50 per cent of the bottom quintile sold assets or took loans to access hospital care. Hence loans and sale of assets are estimated to contribute substantially to financing healthcare. This makes the need for insurance and social security even more imminent.

Public financing of healthcare comes largely from state government budgets, about 80 per cent, and the balance from the Union government (12 per cent) and local governments (8 per cent). Of the total public health budget today about 10 per cent is externally financed in contrast to about 1 per cent prior to the Structural Adjustment loan from the World Bank and loans from other agencies. Private financing is mostly out-of-pocket with a large proportion, especially for hospitalisations, coming not from current incomes but from savings, debt and sale of assets. Insurance contributions, whether for social insurance schemes or as private insurance premiums, constitute a very small proportion.

Trends in Public Health Expenditures

Public investment in the social sectors in India has been a cause for concern. The decision to be a mixed economy trying to marry socialism and capitalism has not worked either system. In retrospect the large public sector economy failed in realising both economic and social goals. On the contrary it helped accumulation of private capital but the Indian bourgeoisie and the State did not have the vision to promote a welfare state. Right from the first plan onwards the health sector has received on one hand inadequate resources and on the other these resources largely benefited the small urban-industrial economy. Table 1 profiles the investment and expenditures in the health sector since the first plan period. It is clearly evident that the state has over the years committed merely around 3 per cent of public resources for the health sector and this has invariably been less than 1 per cent of GDP. As a consequence the out-of-pocket burden of households has been the main source of financing healthcare. Of the total health expenditure in India the public sector contributes around one-fifth and this has remained more or less constant over the years. This level of state's investment in the health sector is not adequate to ensure universal and equitable healthcare access.

Graph 1
IMR Trends in India and Low-income Countries 1960-95



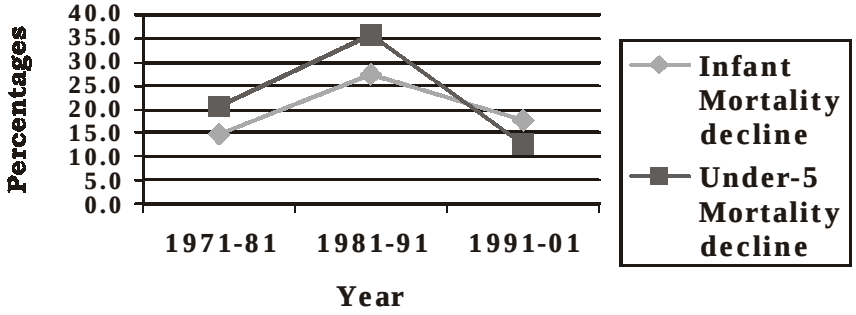
Source: SRS Bulletins and UNDP HDRs

If we look at health outcomes like infant mortality rate (IMR) and life expectancy we find that the change has been very slow. This is clearly linked to poor investments in the public health sector. And as a consequence India has been lagging behind the average IMR of the low-income countries.

From the above graph it is clearly evident that India, with improved public health investments in the eighties (Table 1 and 2), caught up with the rest of the low income countries on the one hand and on the other, the rural urban gap narrowed to some extent, but the sharp declines seen in the eighties has turned to stagnation or slower decline in both IMR and U-5 mortality post 1991 (Graph 2). The post-SAP period saw a declining trend in public resources being committed to the health sector and the stagnation in health outcomes is largely a consequence of this. Graph 3 and Table 2 show the trend of public health spending from 1976 to 2001 and it is evident from this that in the eighties public health expenditures as a percent of GDP as well as the proportion of total government spending peaked and then began to decline. What was worse is the proportion of capital expenditure, which was halved during the nineties as compared to the eighties; and this meant that new investments in public health had almost stopped. This was the period of private sector expansion in the health sector, though post-SAP even private health expenditures showed a decline but in latter half of the nineties they began climbing again. (Table 1 and Table 9) The impact of this changinng political economy has been discussed in the introduction.

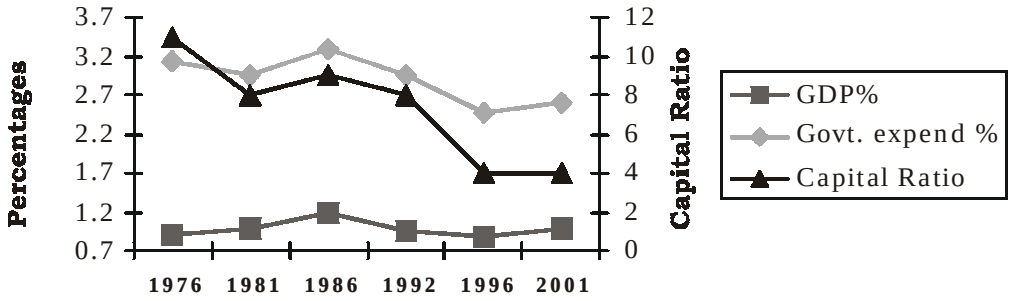
While overall public health investment and expenditures have been low and inadequate to meet the healthcare needs of the population at large, there are hierarchies within this health spending. The most obvious hierarchy is the rural-urban dichotomy in public health investment and expenditures. The rural areas across the country have public health services that largely focus on preventive and promotive aspects. Thus immunisations for children and pregnant women, antenatal care, surveillance of selected diseases and family planning services constitute the key focus of the primary healthcare system provided for rural India. The component for ambulatory curative services is grossly inadequate under the primary healthcare system. In contrast the focus in urban healthcare is largely curative with dispensaries and hospitals taking away most of the health resources. Since India lacks a national health accounting system, disaggregation of public spending across rural and urban areas for the country as a whole is difficult to compile. However we have done

Graph 2
Slowing Down in Rate of IMR and U-5 Mortality Decline 1971-2001



Source: 1. upto 1986 – Combined Finance and Revenue Accounts, respective years, GOI, New Delhi; 2. 1987 –2003 Finance Accounts of States and Union Government, respective years; and RBI – Finances of the State Governments, respective years, RBI, Mumbai; 3. GDP and Population data - National Accounts Statistics, CSO, 2003

Graph 3
Public Expenditure Ratios 1976-2001



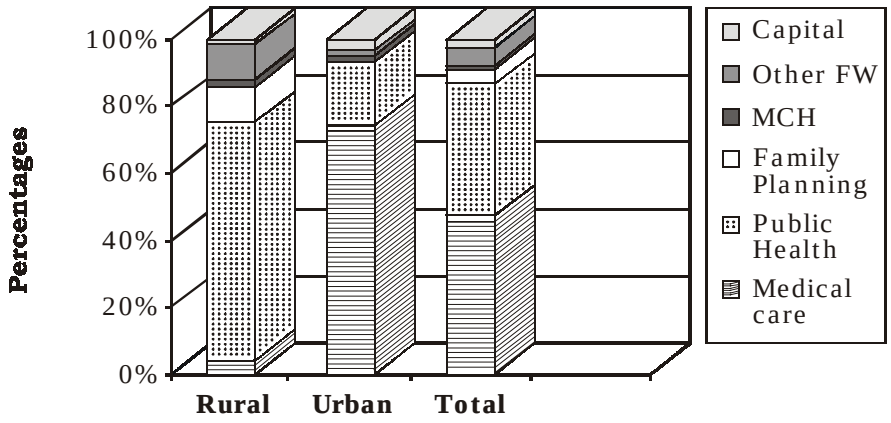
Source: 1. upto 1986 – Combined Finance and Revenue Accounts, respective years, GOI, New Delhi; 2. 1987 –2003 Finance Accounts of States and Union Government, respective years; and RBI – Finances of the State Governments, respective years, RBI, Mumbai; 3. GDP and Population data - National Accounts Statistics, CSO, 2003

this exercise for Maharashtra state to estimate *rural-urban differentials in allocation of resources (Table 6 / Graph 4).*

The rural-urban distribution of resources at one level favours urban health facilities with over 60 per cent of allocations for urban areas where 40 per cent of the population resides, but more important, at another level the service-mix of healthcare in the two regions differs significantly. The rural areas get only half the resources of what urban areas get on a per capita basis, and within this low allocation only 4 per cent is for medical care and a little over one percent for capital expenditures. (Table 6) The rest is on preventive and promotive programmes referred to earlier. In contrast in the urban areas it is a good mix of curative, preventive and promotive services, with curative services comprising nearly half the urban health budget. While this data is from Maharashtra, in other states the rural-urban disparity should not be very different, infact the allocation of resources to rural areas in the under-developed states is likely to be worse.

Apart from state budgets allocating a more favourable proportion of resources to urban areas the latter also have the advantage of local government resources to support urban public healthcare. While municipal budgets

Graph 4
Rural - Urban Differentials in Public Health Expenditure Maharashtra 2000-01



Source: Performance Budgets, Ministry of Health and Family Welfare, Govt of Maharshtra 2002-03, Mumbai, 2003

are not compiled for the country as a whole, some occasional evidence available suggests that urban areas, especially cities and metros, get large resources for healthcare further enhancing what the state governments also contribute. Data of selected municipal corporations show that over the years there seems to be a changing trend in municipal health expenditures wherein state resources for urban areas seem to be expanding.[16] The table below gives a trend of municipal health spending over the years for selected municipal corporations[17] and indicating ratios to state government expenditures, which shows a clear declining trend.

What is evident from the above table is that viewed as a ratio to public spending on healthcare the overall resource commitments in municipal budgets for healthcare are declining. This may also mean that many municipalities over time have been unable to raise resources and hence may be reducing their presence in the health sector. This is borne out by the declining proportion of municipal health expenditure as a ratio to total municipal expenditure, especially so during the post SAP period.

The above analysis is restricted only to municipal corporations but in addition there are other levels of municipal bodies such as municipalities and municipal councils and for rural areas there are local governments like zilla parishads (earlier called district boards) and panchayat samitis. Data for these are more difficult to come by. During the 1950s and early 1960s the ministry of health used to report health expenditures of such bodies in their Health Statistics of India. For instance in 1951 Rs. 22 million (6 per cent of the total expenditure) was reported as expenditure on health by district boards and this was as much as 10 per cent of what governments were spending on healthcare in the same year. This came down to a mere Rs.9 million in 1961, which was less than one percent of what governments were spending on healthcare. This is clear evidence for the fact that health expenditures which were decentralised in

[16] Duggal Ravi, S Nandraj and S Shetty: State Sector Health Expenditures 1951-1985, FRCH, 1992, Mumbai
[17] Interestingly for health expenditures of all municipal corporations in the country Mumbai alone accounts for a whopping 35%

Table 2
Selected Municipal Health Expenditures 1951-1998

Municipal Health Expenditure	1951 (24)	1961 (26)	1971 (29)	1981 (31)	1986 (39)	1991 (36)	1996 (27)	1998 (24)
In Rupees million	12	264	467	1478	3098	5395	5447	7838
% Health to total expenditure	32	29	29	29	28	26	17	19
% to govt health expenditure	55	24	14	12	10	11	5	6

Figures in parentheses refers to number of municipal corporations
Source: CSO: Statistical Abstract of India, respective years, Govt of India, New Delhi

municipal and district authorities were getting centralised at the state level. Thus the decentralisation that existed in the early years post-independence instead of being strengthened, as suggested by the Balwant Rai Mehta committee, was gradually left to wither away.

Another set of data that is available nationally on local government expenditures, both urban and rural, is salaries and wages for medical and public health in local governments. This expenditure for instance was Rs. 22.44 billion in 2000-01 as compared to Rs. 4.97 billion in 1990-91[18]. In addition expenditures on commodities and services would be there but this is not known at the national level. Ofcourse, between 10 to 40 per cent for urban bodies and between 60 and 80 per cent for rural bodies is the grant component from government which is also reflected in the governments expenditure and hence has to be netted.

In the seventies and eighties a number of studies by National Institute of Urban Affairs (NIUA)[19] were undertaken and this provided some comprehensive data on municipal finances and expenditures. Data from these studies show that municipal gross financing of health budgets was Rs. 2156 million in 1975 (ratio of 30 per cent of govt health expenditure), Rs. 3792 million in 1980 (29 per cent of govt health expenditure) and Rs. 6500 million in 1986 (22 per cent of govt. health expenditure). These constituted about 37% of total municipal expenditures. However between 40 per cent and 50 per cent was supported through grants from the governments. What this translates into still is between 11- 15 per cent additional health expenditures for urban populations over and above what governments were spending. Thus urban areas at one level get about two-thirds of government health expenditures for less than one-third of the population that live in urban areas and in addition get about 10 to 15 per cent of this additionally for healthcare support from municipal budgets.

While rural-urban differential health expenditures are not available in the national health accounts, we do have data on expenditures across major health programs. Table 4 shows that until the beginning of the 1990s the proportion across programs maintained an astonishing consistency. What we see since then is a decline in proportion of expenditure on hospitals and dispensaries, capital expenditures, and disease programs. One program that has gained substantially is the Mother and Child Health (MCH) now called Reproductive and Child Health (RCH) together with the family planning program due to an increased focus on antenatal care and child immunisation. Capital expenditures have seen a real beating (Table 5) and hence there have been virtually no new investments in the

[18] CSO, Statistical Pocketbook India 2002, GOI, NewDelhi
[19] A Study of Financial Resources of urban local bodies in India, NIUA, 1983, New Delhi; Upgrading Municipal Services, NIUA, 1989, New Delhi

Table 3
Growth of Private Health Expenditures in India in Comparison to Public Expenditures 1951-2003

		1951	1961	1971	1981	1986	1991	1995	1996	1997	1998	2000	2003
Health Expenditure Rs. Billion	Public	0.22	1.08	3.35	12.86		29.66	50.78	82.17	101.65	113.13	126.27	219.59
	Private		3.65	10.99	52.84	90.54	146.98	278.59	329.23	373.41	459.00	835.17	1250.0
Health Expenditure as percent of GDP	Public	0.25	0.71	0.84	1.05	1.19	0.92	0.95	0.91	0.88	0.81	0.87	1.00
	Private		2.25	2.60	4.06	3.61	2.88	3.04	3.07	3.00	3.30	4.76	5.60
Private: Public ratio (times)		__	3.4	3.3	4.1	3.1	2.9	3.4	3.3	3.3	3.6	4.7	5.7

Source: Public Expenditures from Finance Accounts of state and central govts., and private expenditures from national Accounts Statistics of CSO.

public domain during the 1990s and subsequently. However, the decline under the budget head 'hospital and dispensaries' and 'disease programs' may not be actually so. In the finance accounts there have been changes in reporting in which external budgetary support is shown under a separate head and since such resources have come largely to the hospital sector (health sector reform projects of World Bank, EU etc.) and to disease programs like AIDS and tuberculosis, there is perhaps no real decline in these two heads. So the astonishing consistency seems to continue perhaps reflecting that there is very little drive for change in the method of public health spending.

Further when we look across states the declining trend in public health expenditure during the 1990s is almost universal (Table 8). The collapse is taking place across the length and breadth of the country and this is a very serious concern. Yet one sees increased proportions being allocated in the central government's budget but this is also a matter of concern because most of this increase is due to external funding for vertical health projects like health sector reforms projects of the World Bank and EU, RCH projects of various bilateral and multilateral donors, HIV/AIDS funding etc.

Another concern vis-à-vis public health budgets is that of allocative efficiency of resources. In the 1990s budgets shrank, yet salaries (post-1996) increased very substantially and this upset availability of resources for non-salary components in most states and this added salt to the wounds of the ailing public health system. It is only in the last one or two years that the ratio of salary to non-salary is coming back to the pre 1996 period.

To sum up, the collapse of the public health system during the last decade is somewhere linked to the falling levels of public health investment and the declining public health expenditures and this in a situation of continuing poverty can only lead to increased adversities in health outcomes. Even in a state like Kerala we see stagnation in health outcomes like infant and child mortality rates due to the fiscal crises of the state government but more important due to the unprecedented growth of the private health sector in Kerala.

Private Health Expenditures

The private health sector has always been a very substantial entity in India, especially for ambulatory care. However for hospitalisations until the mid-eighties the private sector was a reasonably small player but since then it grew by leaps and bounds and overtook the public hospital sector around the mid-nineties (Table 9). From the 1970s on private spending

on healthcare grew gradually, peaking around the early 1980s. As mentioned earlier, the eighties was the growth phase of public health investment and hence we see private health expenditures decline during that period because of improved access to public healthcare facilities. The impact of SAP affected both the public and private health sectors but by mid-1990 the private health sector recovered dramatically and since then it has grown at the cost of the public health sector. It must be remembered that 80-85 per cent of private health expenditure is incurred out-of pocket and the burden is directly on household budgets. Further, less than 10 per cent of the workforce is in the organised sector, which may have either social insurance or medical benefits coverage from employers, estimated to cover about 15 per cent of the population. This means that as much as 85 per cent of the population, largely poor and subsistence level households, contribute entirely out-of-pocket to access private health services and as we have seen earlier this is often coming not from current incomes but from loans and sale of assets.

Comparison of utilization and health expenditure data across the 42nd (1987) and 52nd (1996) Rounds of NSS shows a very alarming trend. There is upto 30 per cent decline in use of public healthcare facilities in both rural and urban areas over the decade. Why is this so? Partly the answer is within the same data set. The cost of seeking treatment even in public hospitals has increased over five-fold (in private it is nearly seven times). During the same period the purchasing power of the poorer classes has not changed in any substantial way and as a consequence the 52nd Round shows higher levels of untreated morbidity, especially amongst the poorer groups. The other part of the answer is the declining investment and expenditures in the public health sector. It can be argued that these trends are closely linked with a wide spectrum of changes in the economy since the mid-1980s, which have led to privatisation of services, deregulation of drug prices, increased reliance on market mechanisms to address welfare needs, and weakening of public health systems. Thus the main hurdles to healthcare access are poverty and the changing political economy and the inequities associated with it.

While data on the number of public healthcare facilities is available, the data about its use is not available in any systematic manner. The service statistics lack an epidemiological basis and are reported more in terms of targets and achievements, which have little meaning for the purpose of any analysis. State Performance Budgets do give some relevant utilisation data but these documents are not easily available nor the health statistics authorities compile data from them. In the case of the private health sector data is conspicuous by its absence. However, in recent years, national surveys like the NSSO utilisation surveys in 1987 and 1996, the NCAER surveys in 1990 and 1993, NFHS surveys in 1993 and 1999, and the RCH rapid household survey in 1999, apart from the smaller studies, have provided reasonably good estimates of utilisation of health services and healthcare expenditures. The NSSO data reveals that the share of outpatient services provided by public institutions has declined from 26 per cent to 23 per cent in rural areas over the decade (1986-1996) and from 27 per cent to 22 per cent in urban areas. This decline has been mainly in utilisation of out patient departments(OPDs) of public hospitals, as the use of Public Health Centres (PHCs) and dispensaries has remained the same in the overall proportion. This also means that the weight of PHCs, Community Health Centres (CHCs) and dispensaries in public provision of OPD services has increased significantly, perhaps a result of expansion of the primary healthcare sector, especially in the rural areas. Thus the share of PHCs, CHCs and dispensaries in public facilities for OPD care increased from 31 per cent to 42 per cent in the rural areas during this period and in the urban areas from 11 per cent to 15 per cent. In case of inpatient care the public

Social Health Insurance

Apart from general public health expenditures a select population working in the organised sector gets access to healthcare resources due to their employment. The total employment in India today is estimated at 400 million but of this only 28 million is in what is called the organised sector, which is covered by comprehensive social security legislation, including social health insurance. The largest of this is the ESIS which covers 8 million employees, and including family members provides health security to 33 million persons. In 2002-03 the ESIS Corporation spent Rs.12 billion on healthcare for its member beneficiaries averaging Rs.365 per beneficiary. This effectively covers a mere 3.2% of the population. Another about half per cent of the population is covered through the CGHS. In the same year the CGHS spent Rs. 2 billion averaging Rs. 450 per beneficiary. While these social insurance plans have been around for a long time, their credibility is at stake and large scale out-sourcing to the private sector is taking place. ESIS has private panel doctors in large cities who provide ambulatory care to those covered under ESIS whereas their own doctors in dispensaries and hospitals run by ESIS are increasingly idling. Similarly under CGHS, those covered are being given "choice" to access private healthcare by being given reimbursements which for instance for a by-pass surgery could go upto Rs.150,000 for a senior bureaucrat when the same would cost about Rs.40,000 in a public institution like AIIMS.

Further, other government employees like the Railways, Defence Services and the P&T dept. have significant healthcare services and/or reimbursements for their employees which amounts to a significant Rs.16 billion per annum and this averages a whopping Rs. 1150 per beneficiary. Also welfare funds have been created by Acts of parliament for specific occupational groups, including those in selected unorganised sector groups, like beedi workers, plantation workers, mine workers, building/ construction workers, head load workers to meet social security benefits like healthcare, education, recreation, water supply, housing etc. In 2002-03 these funds expended Rs. 350 million on healthcare, which was about half the expenditure of the welfare funds.

From rest of the organised sector, largely the middle and upper middle classes, about 30 million persons are provided healthcare protection from employers through reimbursements and/or employer provision. This is estimated at about Rs.24 billion per year, averaging Rs.3000 per employee per annum. Thus about 10 percent of the country's population has some form of social insurance cover for health through their employment.

From time to time the government has also introduced social security schemes, including health cover for various groups of population, especially the poor or below poverty line groups, in the unorganised sector, like the Krishi Shramik Samajik Sanstha Yojana, National Social Assistance Program, National family benefit scheme, National maternity benefit scheme, handloom workers thrift, health and group insurance, agricultural workers central scheme, janashree bima yojana, state govt welfare funds, national illness assistance fund and state illness funds etc. But these schemes are not run on a regular basis, that is if a person gets a benefit once there is no guarantee that the same person continues to get access to that scheme on a regular basis. No firm figures of their coverage are available because most such schemes, like the latest community health insurance scheme in the 2003-04 budget, are populist announcements to lend social credibility to the budget and when the next budget comes the scheme gets quietly archived.

- Ravi Duggal, Financing Healthcare in India – Prospects for Health Insurance Express Healthcare Management journal, March 1-16, 2004

sector is still a major provider but here too a declining trend is seen. The NSSO data indicates that in 1986-87 the public institutions accounted for 60 per cent of all hospitalisations and this came down to 44 per cent in 1995-96, the decline being 40 per cent in urban areas and 36 per cent in rural areas. The largest losers were public hospitals, with PHC and CHC showing a marginal improvement like in the case of OPDs.

When we look at this utilisation data of public facilities in the context of public investment and expenditures on healthcare in the last decade or so, the declining pattern of utilisation begins to make sense. Late 1970s and 1980s was a major growth phase for public health infrastructure, especially in rural areas. Even in the nineties rural hospital growth had been substantial. But overall investment and growth in healthcare by the state has been declining. This is reflected in lower growth in real expenditures and declining capital expenditures. This has been especially true for medical care, which is purely a state government activity. The fifth pay commission impact has been devastating; with the proportion of medical care expenditure on salaries shifting from around 60 per cent prior to the fifth pay commission to over 80 per cent a few years later. Thus the shift in favour of the private health sector for availing medical care in the last decade or so is not surprising because private health facilities have grown much more rapidly in contrast to public facilities, which at best have stagnated. In the context of overall poverty this is a disturbing trend because the poor, who constitute a very large majority of the country's population, have to increasingly rely on the private healthcare market whose cost is growing much faster than the means at the disposal of such people. Hence health security of the large majority of Indians is threatened.

Conclusions

One question often raised is 'Why Invest in Health?' and as one argument states that investment elsewhere often has a positive impact on health. Yes, that is true, provided such health impacting investment is available! India's social infrastructure is inadequate and poor across the board. Whether it is education, sanitation, drinking water, rural transportation, electricity supply, water harvesting etc.., they are worse if not as bad as the public healthcare services. Over the years public health services have deteriorated. If one reviews health plans and policies one sees a clear direction of abdication of responsibility by the State. From comprehensive basic care we have moved towards a program based approach (much like fire-fighting) and now even getting selective about programs and recipients of these services. This approach of the State has created favourable conditions for the private health sector to grow from strength to strength, and often aided by public resources.[20]

The other argument that investing in healthcare is gilt-edged because it has wide ranging spin-offs in the overall economy is also very credible. Kerala in south India is a very good example. Kerala is economically less developed but has the best health profile in the country. This is because of its long history of public investment in healthcare services in both rural and urban areas. Conversely, with declining investment in the last decade we see adversities in Kerala's health profile. Similarly metropolitan areas like Mumbai, Delhi, Chennai, Bangalore, Ahmedabad, Indore etc. have seen vast investments in public health services and these are reflected in reasonably good health outcomes. In recent years one can see deterioration because of reduced investments and expenditures, which is forcing people to increasingly access healthcare from the private sector that is expanding rapidly. Moreover, these prime public health services have come under the purview of privatisation and user fees have been introduced across the board with the consequence that a large number of poor who

[20] Duggal, Ravi, 2000: The Private Health Sector in India – Nature, Trends and a Critique, VHAI, New Delhi

were the main users of these services have moved away from them.

With such a health system in the country the health of the people cannot be particularly good. There is no dearth of evidence to show that India's health indicators are one of the worst in the world. Infact the latest Human Development Report shows a downward trend in India's global ranking[21] Therefore there is a crying need to reorganise the country's healthcare system. The future lies in creating an organised and regulated healthcare system, which is responsive to people's needs and accountable to them. While reorganisation will be a long-term process, beginnings will have to be made by rationalisation of the existing healthcare system. For example, strengthening primary care (especially first line curative) services, organising a referral system for secondary and tertiary care, reallocation of resources on a more equitable basis etc.

Public spending on healthcare as seen above is barely 1 per cent of GDP as it stands today. This infact is a decline over earlier years, especially the mid-1980s when it was 1.32 per cent of GDP at the national level. Nearly 70 per cent of state spending goes to urban areas, mostly for hospitals. The balance of 30 per cent in rural areas is spent mostly on family planning services, immunisation and selected disease surveillance. Private out-of-pocket expenditures on healthcare are not available in any organised way. At best estimates can be made based on sample surveys of household expenditures and indirectly by extrapolating on the basis of the strength of the private health sector. It is today estimated to be over 5 per cent of GDP, more than double that of estimates available for the 1960s and 1970s.

A restructured and organised healthcare system, which brings private health sector under a regulated public domain, would need far lower resources. Estimates calculated for the basic healthcare package, including existing public secondary and tertiary services would cost a little over 3 per cent of the GDP[22]. This would mean a whopping saving of 40 per cent of what is now being spent and it would be coupled with much better quality and effective services. In terms of sharing costs the public share would definitely need to go up and private resources would be channelised through employers, employees and insurance funds or other collective mechanisms of pooling resources like few NGOs, unions etc. have demonstrated. The State would have to raise additional resources through earmarked taxes and cesses for the health sector. This would mean a greater burden on those with capacity to pay but there would be an overall saving of out-of-pocket expenses for all but especially for the poor.

Thus the new strategy would focus both on strengthening the state-sector and at the same time also plan for a regulated growth and involvement of the private health sector. There is a need to recognise that the private health sector is huge and has cast its net,

[21] India's human development index rank is down from 115 in 1999 to 124 in 2000, though still better than the 1994 rank of 138. India is on the fringe of medium and low HDI group of countries. India's improvement in the HDI in the last 25 years has been marginal from a score of 0.407 in 1975 to 0.577 in 2000 - this works out to an average increase of 1.6% per annum. The slowing down of growth is shown in the table below: (Source: UNDP Human Development Report, various years)

	1975	**1980**	**1985**	**1990**	**1995**	**2000**
HDI score	0.407	0.434	0.473	0.511	0.545	0.577
Annual % increase over previous period	—	1.3	1.8	1.6	1.3	1.1

[22] Duggal Ravi: : Health and Development in India – Moving Towards Right to Healthcare, Draft paper for Harvard School of Public Health initiative on Right to Development, 2002

irrespective of quality, far wider than the state-sector health services. Through regulation and involvement of the private health sector an organised public-private mix could be set up which can be used to provide universal and comprehensive care to all. What we are trying to say is that the need of the hour is to look at the entire healthcare system in unison to evolve some sort of a national system. The private and public healthcare services need to be organised under a common umbrella to serve one and all. A framework for basic minimum level of care needs to be spelt out in clear terms and this should be accessible to all without direct cost to the patient at the time of receiving care.

Today we are at the threshold of another transition which will probably bring about some of the changes like regulation, price control, quality assurance, rationality in practice etc.. This is the coming of private health insurance that will lay rules of the game for providers to suit its own for-profit motives. While this may improve quality and accountability to some extent it will be of very little help to the poor and the underserved who will anyway not have access to this kind of a system. Worldwide experience shows that private insurance only pushes up costs and serves the interests of the haves. If equity in access to basic healthcare must remain the goal then the State cannot abdicate its responsibility in the social sectors. The state need not become the primary provider of healthcare services but this does not mean that it has no stake in the health sector. As long as there are poor the state will have to remain a significant player, and interestingly enough, as the experience of most developed countries show, the state becomes an even stronger player when the number of poor becomes very small![23]

While reorganisation of the health sector will take its own time, certain positive changes are possible within the existing setup through macro policy initiatives - the medical councils should be directed at putting their house in order by being strict and vigilant about assuring that only those qualified and registered should practice medicine, continuing medical education (CME) should be compulsory and renewal of registration must be linked to it, medical graduates passing out of public medical schools must put in compulsory public service of atleast five years of which three years must be at PHCs and rural hospitals (this should be assured not through bonds or payments but by providing only a provisional license to do supervised practice in state healthcare institutions and also by giving the right to pursue postgraduate studies only to those who have completed their three years of rural medical service), regulating the spread of private clinics and hospitals through a strict locational policy whereby the local authority should be given the right to determine how many doctors or how many hospital beds they need in their area (norms for family practice, practitioner : population and bed : population ratios, fiscal incentives for remote and underserved areas and strong disincentives and higher taxes for urban and over-served areas etc.. can be used), regulating the quality of care provided by hospitals and practitioners by setting up minimum standards to be followed, putting in place compulsory health insurance for the organised sector employees (restructuring the existing Employees State Insurance Scheme (ESIS) and merging it with the common national healthcare system where each employee has equal rights and cover but contributes as per earning capacity, for example if each employee contributes 2% of their earnings and the employer adds

[23] Data from OECD countries clearly shows that the State is a major player in health financing and over three-fourths of the resources for the health sector in these countries, except USA, comes from the public exchequer; even in the USA it is over 40%(OECD, 1990: Health Systems in Transition, Organisation for Economic Cooperation and Development, Paris) but in India the State contributes less than one-fifth, the balance coming out of pocket of households.

another 3% then nearly Rs.100 billion could be raised through this alone), special taxes and cesses for health can be charged to generate additional resources (alcohol, cigarettes, property owners, vehicle owners etc.. are well known targets and something like one percent of sales turnover for the products and a value tax on the asset could bring in substantial resources), allocation of existing resources can be rationalised better through preserving acceptable ratios of salary : non-salary spending and setting up a referral system for secondary and tertiary care. These are only some examples of setting priorities within the existing system for its improvement.

Further as an immediate step, within its own domain, the State should undertake to accomplish the following:

- Allocation of health budgets as block funding, that is on a per capita basis for each population unit of entitlement as per existing norms. This will create redistribution of current expenditures and reduce substantially inequities based on residence.[24] Local governments should be given the autonomy to use these resources as per local needs but within a broadly defined policy framework of public health goals
- Strictly implementing the policy of compulsory public service by medical graduates from public medical schools, as also make public service of a limited duration mandatory before seeking admission for post-graduate education. This will increase human resources with the public health system substantially and will have a dramatic impact on the improvement of the credibility of public health services
- Essential drugs as per the WHO list should be brought back under price control (90% of them are off-patent) and/or volumes needed for domestic consumption must be compulsorily produced so that availability of such drugs is assured at affordable prices and within the public health system
- Local governments must adopt location policies for setting up of hospitals and clinics as per standard acceptable ratios, for instance one hospital bed per 500 population and one general practitioner per 1000 persons. To restrict unnecessary concentration of such resources in areas fiscal

[24] To illustrate this, taking the Community Health Centre (CHC) area of 150,000 population as a "health district" at current budgetary levels under block funding this "health district" would get Rs. 30 million (current resources of state and central govt. combined is over Rs.200 billion, that is Rs. 200 per capita). This could be distributed across this health district as follows : Rs 300,000 per bed for the 30 bedded CHC or Rs. 9 million (Rs.6 million for salaries and Rs. 3 million for consumables, maintenance, POL etc..) and Rs. 4.2 million per PHC (5 PHCs in this area), including its sub-centres and CHVs (Rs. 3.2 million as salaries and Rs. 1 million for consumables etc..). This would mean that each PHC would get Rs. 140 per capita as against less than Rs. 50 per capita currently. In contrast a district headquarter town with 300,000 population would get Rs. 60 million, and assuming Rs. 300,000 per bed (for instance in Maharashtra the current district hospital expenditure is only Rs. 150,000 per bed) the district hospital too would get much larger resources. To support health administration, monitoring, audit, statistics etc, each unit would have to contribute 5% of its budget. Ofcourse, these figures have been worked out with existing budgetary levels and excluding local government spending which is quite high in larger urban areas. (Duggal, Ravi 2002: Resource Generation Without Planned Allocation, Economic and Political Weekly, Jan 5, 2002)

measures to discourage such concentration should be instituted.[25]

- The medical councils must be made accountable to assure that only licensed doctors are practicing what they are trained for.[26] Such monitoring is the core responsibility of the council by law which they are not fulfilling, and as a consequence failing to protect the patients who seek care from unqualified and untrained doctors. Further continuing medical education must be implemented strictly by the various medical councils and licenses should not be renewed (as per existing law) if the required hours and certification is not accomplished
- Integrate ESIS, Central Government Health Scheme (CGHS) and other such employee based health schemes with the general public health system so that discrimination based on employment status is removed and such integration will help more efficient use of resources. For instance, ESIS is a cash rich organization sitting on funds collected from employees (which are parked in debentures and shares of companies!), and their hospitals and dispensaries are grossly under-utilised. The latter could be made open to the general public
- Strictly regulate the private health sector as per existing laws, but also an effort to make changes in these laws to make them more effective. This will contribute towards improvement of quality of care in the private sector as well as create some accountability
- Strengthen the health information system and database to facilitate better planning as well as audit and accountability.

To conclude, it is evident that the neglect of the public health system is an issue larger than government policy making. The latter is the function of the overall political economy. Under capitalism only a well-developed welfare state can meet the basic needs of its population. Given the backwardness of India the demand of public resources for the productive sectors of the economy (which directly benefit capital accumulation) is more urgent (from the business perspective) than the social sectors, hence the latter get only a residual attention by the state. The policy route to comprehensive and universal healthcare has failed miserably. It is now time to change gears towards a rights-based approach. The opportunity exists in the form of constitutional provisions and discourse, international laws to which India is a party, and the potential of mobilizing civil society and creating a socio-political consensus on right to healthcare. There are a lot of small efforts towards this end all over the country. Synergies have to be created for these efforts to multiply so that people of India can enjoy right to health and healthcare.[27]

[25] Such locational restrictions in setting up practice may be viewed as violation of the fundamental right to practice one's profession anywhere. It must be remembered that this right is not absolute and restrictions can be placed in concern for the public good. The suggestion here is not to have compulsion but to restrict through fiscal measures. In fact in the UK under NHS, the local health authorities have the right to prevent setting up of clinics if their area is saturated.

[26] For instance the Delhi Medical Council has taken first steps in improving the registration and information system within the council and some mechanism of public information has been created.

[27] Duggal, Ravi: Health and Development in India – Moving Towards Right to Healthcare, Draft paper for Harvard School of Public Health initiative on Right to Development, 2002

Table 4
Pattern of Investment and Expenditures on Health and Family Welfare (Rs. Billions) and selected Health Outcomes

	Public Health Investment and Expenditures						Private Health		Total Health		Health Outcomes	
Plan Period	**Health & FW Plan Expd.**	**Health & FW as percent of Plan**	**Health & FW Expend-iture – plan+ non plan**	**Percent Health & FW of Total Govt Expd.**	**Percent Health & FW of GDP**	**Percent Plan H& FW Expd.**	**Private Health Expen-diture**	**Private Health as % of GDP**	**Total Health Expen-diture**	**Public as % of Total Health**	**IMR at end of plan period**	**Life Expect-ancy during plan period**
First Plan (Actuals) (1951-56)	0.65	3.33	2.27	3.74	0.44	28.63	7.5	1.46	**9.77**	23.2	148	37
Second Plan (Actuals) (1956-61)	1.46	3.12	3.93	3.52	0.56	37.15	13.2	1.88	**17.13**	22.9	138	44
Third Plan (Actuals) (1961-66)	2.51	2.92	6.68	2.65	0.62	37.57	26.89	2.53	**33.57**	19.9		
Annual Plans (Actuals) (1966-69)	2.11	3.18	6.84	2.8	0.69	30.85	26.92	2.71	**33.76**	20.3	129	51
Fourth Plan (Actuals) (1969-74)	6.14	3.89	19.91	3.35	0.84	30.84	67.02	2.83	**86.93**	22.9	129	
Fifth Plan (Actuals) (1974-79)	12.53	3.18	34.33	2.86	0.81	36.5	148.21	3.52	**182.54**		120	52
Annual Plan (1979-80)	3.84	3.3	11.29	3.19	1.04	34.01	45.85	4.21	**57.14**	19.8	114	52
Sixth Plan (Actuals) (1980-85)	34.12	3.12	95.72	3.15	1.1	35.64	354.64	4.06	**450.36**	21.3	96	55
Seventh Plan (Actuals) (1985-90)	68.09	3.11					556.05	3.35			80	58
Annual Plans (1990-91, 1991-92)	37.71	3.06	109.95	2.94	0.99	34.3	307.63	2.8	**417.58**	26.3	79	59
Eighth Plan (Actuals) (1992-97)	141.1	2.9	434.34	2.52	0.93	32.49	1352.23	2.88	**1786.57**	24.3	71	61
Ninth Plan (Anticipated Exp.) (1997-2002)	299.96	3.19	847.69	2.65	0.97	35.38	3054.24	3.49	**3901.93**	21.7	66	65
Tenth Plan (draft outlay) 2002-2007	589.2	3.86	1785*	2.5*	1*	33*	7500*	4.28*	**9285***	19.2*	60*	67*

*Source - For Plan data: 1. Indian Planning Experience - A Statistical Profile, Planning Commission, GOI, New Delhi, 2000; 2. Ninth Five Year Plan, Planning Commission, GOI, New Delhi, 1998; 3. Draft Tenth Five Year Plan, www.planningcommission.nic.in/ ; For Total public health expenditures (ministries of Health and FW : 1. upto 1986 – Combined Finance and Revenue Accounts, respective years, GOI, New Delhi; 2. 1987 –2002 Finance Accounts of States and Union Government, respective years; and RBI – Finances of the State Governments, respective years, RBI, Mumbai; For private health expenditures & GDP data – National Accounts Statistics, CSO, 2003; For health outcomes – Registrar General of India, respective years. *Projections estimated by author*

Table 5
Total Public Health Expenditure (revenue + capital) Trends 1975-2003 and Selected Ratios

Year	Total Public Health Expenditure (Rs.billions)	Percent of GDP	Percent of Total govt. Expenditure	per capita (Rupees)	capital as ratio to revenue expend
1975-76	**6.78**	0.90	3.13	11.16	0.11
1980-81	**12.86**	0.99	2.96	18.94	0.08
1985-86	**29.66**	1.19	3.29	39.28	0.09
1991-92	**56.40**	0.96	2.96	65.89	0.08
1992-93	**64.64**	0.74	2.71	74.13	0.04
1993-94	**76.81**	0.98	2.89	86.21	0.04
1994-95	**85.65**	0.93	2.33	94.33	0.05
1995-96	**96.01**	0.89	2.47	103.57	0.04
1996-97	**109.35**	0.88	2.43	115.96	0.04
1997-98	**127.21**	0.92	2.50	132.65	0.05
1998-99	**151.13**	0.94	2.66	155.01	0.04
1999-00	**172.16**	0.96	2.61	173.72	0.05
2000-01	**186.13**	0.98	2.69	182.66	0.04
2001-02RE	**211.06**	1.02	2.72	203.53	0.05
2002-03BE	**219.59**	1.00	2.60	208.54	0.05

Source: 1. upto 1986 – Combined Finance and Revenue Accounts, respective years, GOI, New Delhi; 2. 1987 –2003 Finance Accounts of States and Union Government, respective years; and RBI – Finances of the State Governments, respective years, RBI, Mumbai; 3. GDP and Population data - National Accounts Statistics, CSO, 2003

Table 6
Maharashtra 2000-01 Public Health Expenditures (Rs. Million)

Type of Expenditure	Rural	Urban	Combined
Medical care*	259.55 (4.09)	7457.24 (74.59)	7716.79 (47.22)
Public Health	4514.34 (71.15)	1947.33 (19.48)	6461.67 (39.54)
Family Planning	677.57 (10.68)	61.70 (0.62)	739.27 (4.52)
MCH	136.91 (2.15)	58.68 (0.58)	195.59 (1.20)
Other FW	672.34 (10.60)	167.77 (1.68)	840.11 (5.14)
Capital	84.41 (1.33)	305.04 (3.05)	389.45 (2.38)
TOTAL	**6345.12 (100.00)**	**9997.76 (100.00)**	**16342.88 (100.00)**
Percent to Combined	**38.82**	**61.18**	**100.00**
Per Capita	**113.85**	**243.73**	**168.92**

* Includes teaching hospitals, medical education and ESIS; Figures in parentheses are column percentages
Note: In addition urban areas have municipal health expenditures, which can be substantial in bigger cities; for instance Mumbai city alone has a municipal health budget equivalent to the entire medical care budget of Maharashtra state.

Table 7
Disaggregation of National Public Health Expenditures by Major Programs

Year	1950-51	1960-61	1970-71	1980-81	1985-86	1990-91	1994-95	2000-01
A: Amount in Rupees Million								
Revenue expenditure Health	218.55	1076.82	3351.18	11888.12	27153.91	51031.67	81740.53	178900
Disease programmes	23.73	280.51	456.86	1540.33	3174.14	5537.2	8537.43	14062.94
Hospitals & dispensaries	96.15	427.92	1249.59	5147.53	10270.37	15372.22	21574.44	39273.97
ESIS, CGHS		29	152	1001		2698.47	4280.23	8392.38
Medical education, training and research	10.91	60.31	239.6	1077.9	2353.92	5706.57	9555.48	19190.85
Family welfare excluding MCH*	—	—	—	1359.09	4735.69	7927.97	12679.49	24153.8
MCH services*	—	—	—	60.38	136.14	465.29	1486.48	4948.52
Health administration	30.62	119.65	671.9	583.99	1285	2298.98	3706.05	9390.75
Capital expenditure health*	—	—	—	969	2507.22	2513.87	3909.47	7632.4
B: Percentage Distribution								
Total Health	100	100	100	100	100	100	100	100
Disease programmes	10.86	26.05	13.63	12.96	11.69	10.85	10.44	7.86
Hospitals and dispensaries	43.99	39.74	37.29	43.3	37.82	30.12	26.39	21.95
ESIS, CGHS		2.69	4.54	8.42		5.29	5.24	4.69
Medical education training and research	4.99	5.6	7.15	9.07	8.67	11.18	11.69	10.73
Family welfare*	—	—	—	11.43	17.44	15.53	15.51	13.5
MCH services*	—	—	—	0.51	0.5	0.91	1.82	2.77
Health administration	14.01	11.11	20.05	4.91	4.73	4.51	4.53	5.25
Capital Expenditure Health*	—	—	—	7.54	8.45	4.69	4.56	4.09

Notes: Please note that the sub-heads do not add up to the Total as some sub-heads like public health training, health statistics, health transport, public health laboratories etc.. are not included here. Percentages for all programs are a proportion of total revenue health expenditure, except for capital which is a proportion of total health expenditure.

* (i) Family welfare and MCH from 1950-51 to 1970-71 included in medical and public health account heads. (ii) Capital expenditure health are shown separately only from the 70s prior to which it was under the ministry of works.

Source: Up to 1985-86 is Combined Finance and Revenue Accounts, Comptroller and Auditor General of India, respective years. Other years – Finance Accounts, respective states.

Note: From mid-nineties external funding for hospital sector reforms and for select disease programs has increased sharply and these are recorded under separate budgetary heads and hence the decline we see in the budget head 'hospitals and dispensaries' and 'disease programs' may not be really so.

Table 8
Revenue Expenditure on Health: Union Government and States

Year	1950-51	1960-61	1970-71	1980-81	1985-86	1990-91	1994-95	1999-00	2000-01
A: Amount in Rupees Million									
Major States									
Union Govt.	19.97	267.8	284.35	1022.18	2561.51	5523.53	8189.19	17219.15	25864.76
Andhra Pradesh	—	75.57	259.39	876.22	1837.6	3268.04	5601.91	10940.18	12860.91
Assam	6.29	30.42	74.93	232.6	647.08	1103.1	1921.47	3070.24	3461.82
Bihar	16.47	65.27	162.53	544.11	1235.89	2713.33	4128.06	10162	9964.3
Gujarat	—	31.88	213.87	641.99	1480.69	2510.76	4131.96	9131.27	8937.52
Haryana	—	—	75.58	238.17	597.82	819.28	1427.65	2839.31	2909.09
Jammu Kashmir	—	10.4	46.29	196.74	420.23	756.28	1569.14	3352.51	3610.48
Karnataka	0.46	46.36	159.53	603.49	1385.49	2430.15	4577.49	8682.94	9035.63
Kerala	—	44.49	150.11	570.92	1133.97	2127.69	3432.39	6880.37	6738.91
Madhya P'desh	7.01	55.62	197.04	687.85	1500.99	2745.52	4473.32	8365.2	8319.9
Maharashtra	4.59	90.68	385.33	1252.05	2694.69	4774.24	7580.35	13547.7	15953.42
Orissa	6.97	25.9	107.59	408.74	739.01	1350.29	2157.21	4256.7	4331.06
Punjab	7.83	42.11	98.31	387.11	842.18	1662.89	2261.66	5445.62	6375.88
Rajasthan	—	44.98	212.21	569.01	1225.32	2506.66	4608.69	8580.3	8775.99
Tamil Nadu	41.89	83.12	278.5	882.32	1885.52	3790.06	6100.09	11414.77	11604.94
Uttar Pradesh	30.02	74.01	281.12	1116.18	3712.27	6214.3	8981.31	12702	14102.2
West Bengal	37.17	88.18	266.91	1096.08	2015.23	4330.13	5262.32	12274.95	13766.15
Other States									
Arunachal	—	—	—	42.07	82.91	170.62	280.94	539.6	536.1
Pradesh									
Goa, Daman Diu	—	—	19.51	53.58	118.87	238.38	362.76	765.88	823.64
Mizoram	—	—	—	37.9	89.3	149.18	257.83	536.9	538.5
Pondicherry	—	—	10.95	35.02	83.61	181.88	281.42	731.51	804.16
Himachal P'dsh	—	—	39.88	154.63	324.4	667.33	1163.7	2478.2	2630.6
Manipur	—	—	10.89	53.63	95.9	188.2	284.13	753.4	663.7
Meghalaya	—	—	10.65	66.56	124.93	207.62	304.18	636.8	705.1
Nagaland	—	—	17.82	55.92	158.73	245.92	323.41	626.3	764.36
Sikkim	—	—	—	12.79	37.47	79.31	144.1	336.51	317.3
Tripura	—	—	13.79	44.19	122.3	277.09	358.31	711.3	827.34
Delhi	—	—	—	—	—	—	1573.51	3913.6	4392.4
Chattisgarh	—	—	—	—	—	—	—	—	771.2
Jharkhand	—	—	—	—	—	—	—	—	—
Uttaranchal	—	—	—	—	—	—	—	—	342.2
All India	218.55	1076.82	3351.18	11888.12	27153.91	51031.68	81738.5	150733.21	178189.04
B: As Percentage of Total Government Revenue Expenditure									
Major States									
Union Govt.	0.47	2.53	0.58	0.48	0.52	0.54	0.46	0.5	0.75
Andhra Pradesh	—	8.89	8.74	7.55	6.61	5.94	5.89	6.06	5.57
Assam	6.74	7.51	6.2	6.51	6.75	5.81	5.87	5.25	5.39
Bihar	6.32	9.02	6.53	5.72	5.68	5.48	5.46	6.3	6.95
Gujarat	—	6.22	9.75	7.11	7.51	5.8	5.48	5.21	4.05
Haryana	—	—	8.09	5.94	7	4.24	*	4.08	4.05
Jammu Kashmir	—	8.58	6.68	7.35	7.61	6.06	6.21	5.54	5.45
Karnataka	0.35	5.83	6.32	6.74	6.6	6.12	6.3	5.7	5.42
Kerala	—	9.67	9.16	8.55	7.85	7.53	6.77	5.95	5.67
Madhya Pradesh	2.48	8.42	9.66	6.77	6.69	5.78	5.73	5.18	5.55
Maharashtra	6.22	7.6	8.38	6.53	5.97	5.45	5.12	4.59	4.27
Orissa	5.8	7.29	7.69	7.47	7.38	5.4	5.35	5.03	4.9
Punjab	3.8	7.12	7.22	7.04	7.24	5.54	3.74	5.34	5.44

Table 8 continued ...

Year	1950-51	1960-61	1970-71	1980-81	1985-86	1990-91	1994-95	1999-00	2000-01
Rajasthan	—	9.89	9.64	8.28	8.11	7.2	6.83	6.39	5.84
Tamil Nadu	7.05	9.12	8.66	7.66	7.7	6.72	6.33	5.51	5.34
Uttar Pradesh	5.79	5.13	6.79	6.5	9.75	6.52	5.83	4.42	4.54
West Bengal	9.89	9.48	8.8	9.83	8.92	8.44	6.9	6.3	6.23
Other States									
Arunachal	—	—	—	6.86	5.85	6.61	6.41	6.57	5.9
Pradesh									
Goa, Daman	—	—	15.01	10.29	8.22	8.65	7.6	5.33	4.82
and Diu									
Mizoram	—	—	—	7.03	6.8	4.91	5.56	6	5.27
Pondicherry	—	—	13.96	10.6	9.11	8.91	7.84	8.65	8.75
Himachal	—	—	6.39	8.24	7.89	7.4	7.21	6.48	6.01
Pradesh									
Manipur	—	—	7.17	7.68	6.15	5.6	5.59	5.55	5.87
Meghalaya	—	—	11.04	11.12	9.2	6.68	6.66	6.11	6.53
Nagaland	—	—	7.24	6.11	6.96	5.85	5.53	5.31	5.92
Sikkim	—	—	—	4.17	4.83	6.19	2.74	2.23	4.16
Tripura	—	—	7.91	5.07	6.53	5.57	*	4.87	4.77
Delhi	—	—	—	—	—	—	—	11.11	11.88
Chattisgarh	—	—	—	—	—	—	—	—	4.78
Jharkhand	—	—	—	—	—	—	—	—	—
Uttaranchal	—	—	—	—	—	—	—	—	3.75
All India	2.69	5.13	3.84	3.29	3.29	3.02	2.67	2.97	3.13

Notes: — = Not applicable; * = Not available.
Source: Up to 1985-86 is combined finance and revenue accounts comptroller and auditor general of India GOI, respective years, Other years – Finance Accounts, respective states, respective years; RBI, Finances of the Sate Governments, respective years.

Table 9
Private Health Expenditure Trends

Year	Private Health Expenditure (Rs.billions)	Percentage of GDP	% of Total Health Expenditure	Total Health Expenditure (Public - Private) Rs. Billion
1975-76	24.66	3.26	78.43	31.44
1980-81	52.84	4.06	80.43	65.70
1985-86	90.54	3.61	75.32	120.20
1991-92	160.65	2.73	74.01	217.05
1992-93	175.57	2.61	73.09	240.21
1993-94	195.43	2.50	71.78	272.24
1994-95	278.59	3.04	76.48	364.24
1995-96	329.23	3.07	77.42	425.24
1996-97	373.41	3.00	77.35	482.76
1997-98	458.99	3.30	78.30	586.20
1998-99	653.40	4.04	81.21	804.53
1999-00	835.17	4.76	82.91	1007.33
2000-01	981.68	5.18	84.06	1167.81
2001-02*	1100.00	5.32	83.90	1311.06
2002-03*	1250.00	5.60	85.06	1469.59

* estimates by author
Source: CSO – GOI National Accounts Statistics, 2003

Extent of Inequity in Access to Health Care Services in India

T.R. Dilip

Health outcomes such as life expectancy, incidence of diseases or self-reported health status are not randomly distributed throughout the population in India. There are systematic differences between men and women, between different subgroups of population and this may well be linked to inequities in access to healthcare. Access to healthcare, defined as use of health care by those who need it[1], is an essential indicator for health sector policy making. Review suggests that gender in combination with caste and class is influencing both users and providers of health care services in the country.[2] Here the equity in access to health care is examined by studying variation in health status, health service facility use, expenditure on treatment of ailments and source of financing of health care services by selected variables that determine health outcomes. These key variables are gender, social geography, social groups and class.

Morbidity and Hospitalisation

Health status is measured and affected by illness, and various surveys have documented it on the basis of prevalence. Prevalence of ailments during a 15 days reference period and of hospitalisation during a one year reference period for instance, was used in the 52nd round NSSO Survey. Most of the surveys (Duggal and Amin 1989[3]; Sundar 1992[4]; NCAER 1992; Satyasekar, 1997[5] NSSO, 1998; Gumber and Kulkarni, 2000[6] show that morbidity rates are higher in rural areas than inas compared to urban areas. A few others (Duraisamy, 1995[7]; Sundar 1995[8]; Madhiwala, *et al*, 2000[9]) found that morbidity rates were higher in urban areas. Reported morbidity is likely to vary not only between countries but also within a country by region and community. The self reported morbidity is found to be higher among the rich rather than the poor in many countries (Gumber and Berman, 1997[10]; Murray and Chen, 1992[11]).

---

[1] Makinen M, Waters H and Rauch M (2000) Inequalities in health care use and expenditure: Empirical Evidence from Developed countries in Transition, B*ulletin of WHO* 78: 55-65

[2] Saha S. and Ravindran T.K.S. (2002) Gender Gaps in Research on Health Services in India *Journal of Health management* 4(2): 185-214.

[3] Duggal, R. and S. Amin (1989) *Cost of Health Care: An Household Level Survey in an Indian district*, Bombay: Foundation for Research in Community Health.

[4] Sundar, Ramamani (1992) Household Survey of Medical Care', *Margin* 24(2): 169-175.

[5] Satya Sekar P. (1997) Levels of Morbidity in Andhra Pradesh, *Economic and Political Weekly*, XXXII(13): 663-72.

[6] Gumber, A. and V. Kulkarni (2000) *Health Insurance for Workers in Informal Sector, Detailed Results from a Pilot Study*, New Delhi: National Council for Applied Manpower Research.

[7] Duraisamy, P. (1995) Morbidity in Tamil Nadu: Levels, Differentials and Determinants, *Economic and Political Weekly*, 33(17): 982-990.

[8] Sundar, Ramamani (1995) *Household Survey of Health Care Utilisation and Expenditure, Working Paper No 53, New Delhi: National Council for Applied Economic Research.*

[9] Madhiwala, N. S. Nandraj and R. Sinha (2000) *Health Households and Women's Lives: A Study of Illness and Child Bearing among Women in Nasik District,* Mumbai: Centre for Enquiry into Health and Allied Themes.

[10] Gumber, A. and P. Berman (1997) Measurement and Pattern of Morbidity and Utilisation of Health Services: Some emerging issues from recent health surveys in India, *Journal of Health and Population in Developing Countries*, Fall 1997: 16-43.

[11] Murray C.J.L. and L.C. Chen (1992) Understanding Morbidity Change, *Population and Development Review*, 18 (3): 481-503.

According to NSSO (1998) the self reported morbidity information they collected may have been affected by proxy reporting, health care consciousness, level of living and recall lapse. There are also studies which show how factors like physical accessibility of health care services and capacity to seek health care services creates artificial differentials in morbidity and hospitalisation rates within a population.[12] For this reason, morbidity is included here as a proxy indicator of access to health care in the country.

Table 1 shows that ailments were reported during the 15-day reference period at a rate of 55 per thousand population in rural areas. Rural-urban differentials were negligible in this aspect. But the gender differential showed morbidity to be marginally higher among females than males in both rural and urban areas. While analysing the prevalence of ailments across various social groups, it was observed that morbidity rates in rural areas, varied from 42 per thousand population among the 'scheduled tribes (ST) population' to 54 per thousand population among 'schedule caste (SC) Population' and to a high 58 per thousand population among 'Others' category, who are relatively better off than their SC/ST counterparts. Similar type of differentials across caste groups was seen in urban areas. Class differentials were marked, as there was a consistent increase in reported ailments with every increase in monthly per capita expenditure (MPCE) level. Reported morbidity rates increased between lowest and highest MPCE quartile groups from 41 per thousand population to 76 per thousand population in rural areas and from 44 per thousand population to 67 per thousand population in urban areas. It must be noted here that the gap between MPCE and social groups is less in urban areas as compared to rural areas because the former have relatively much better access to public health services.

The ailments reported have been classified as acute and chronic ailments based on duration of ailments. Ailments which normally last for less than 30 days were classified as acute ailments and ailments which last for more than 30 days are taken as chronic ailments. Acute ailments were reported in rural and urban areas, at a rate of 42 per thousand population and 41 per thousand population respectively, while chronic ailments were reported at a rate of around 14 per thousand population in both rural and urban areas. Both prevalence of acute and chronic ailments were slightly higher among females than males. Another notable observation is higher prevalence of chronic ailments in high social groups than that in low social groups. The class differentials observed above remained the same as the prevalence of acute and chronic ailments were reported to be higher in high MPCE quartile groups than in the low MPCE quartile groups. Class differentials in chronic ailment could be justifiable as surveys have shown higher prevalence of lifestyle related chronic ailments in the population. However, differentials of this magnitude in acute ailments are not permissible as they are mostly short duration communicable minor ailments, whose prevalence is usually expected to be higher among the poorer sections of the society. Therefore one can suspect that under reporting of minor health ailments among lower classes is arising a result of their poor health care consciousness, while the rich seek care for similar ailments and for conditions which their poorer counterparts do not perceive as an ailment requiring medical attention. All these observations are related to equity dynamics in reporting of illness and their differentials in ability to access health care.

This type of inverse relationship between economic background and reported health status is usually observed in morbidity data

[12] Dilip T. R. (2002). Understanding Levels of Morbidity and Hospitalisation in Kerala, India. *Bulletin of World Health Organisation* 80(9): 746-751.

Table 1
Prevalence of Ailments and Hospitalisation Per Thousand Population by Sex, Social Group and MPCE Groups, India 1995-96

	Acute ailment		Chronic ailment		Any ailment [1]		Hospitalisation	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Male	41	39	13	13	54	51	14	20
Female	44	43	14	15	57	58	13	20
Social Group								
ST	38	36	5	8	42	45	13	22
SC	42	42	12	11	54	53	9	19
Others	43	41	15	15	58	55	12	20
MPCE quartile								
0-25	34	37	9	9	41	44	5	13
25-50	41	41	10	13	50	52	9	17
50-75	45	43	15	16	57	56	13	19
75-100	54	46	26	25	76	67	26	30
Total	42	41	13	14	55	54	13	20

Source: Computed from 52nd round NSS data based on Schedule 25.0.

[1] Sum of acute and chronic ailment are may not add ing up to any ailment as a small proportion reported more than one ailment in the survey.

based on cross sectional surveys especially in scenarios where access to healthcare is not universal. Class differentials were even sharper in the case of hospitalisation, an event which should be relatively free from underreporting. Annual hospitalisation rate increased from 5 to 26 per thousand population in rural areas and from 13 per thousand population to 30 per thousand population in urban areas, between lowest and highest MPCE quartile groups.

This data reconfirms that inequities in access amongst lower socio-economic groups plays a critical role in their perception of illness and health seeking behaviour, especially so in a context where health care has to be purchased from the market. The relatively lower differentials across subgroups in urban areas further proves this point because urban areas have better access to public health facilities which being free of cost are relatively class neutral.

Further, the annual hospitalisation rate was much lower in rural areas (13 per thousand population) than in urban areas (20 per thousand population). Thus, the presence of or exposure to health care services intensifies their utilisation as the utilisation of hospital services are higher in urban areas, which have a higher concentration of health services than rural areas.

Untreated Ailments

Though the need for medical treatment arises with the onset of illness, it is not necessary that all ailments receive treatment. Factors responsible for non-treatment of ailments include delay in recognition of the problem, delay in decision to seek treatment, difficulties in commuting to health facilities and inability to pay for medical care. All these factors are closely related to the socio-economic background of the ailing person. The present knowledge on level of untreated ailments in India is limited to information from population

based surveys, where the extent of untreated ailments reported depends on perceived/ reported morbidity. Level of reported morbidity as observed above is a subjective phenomenon influenced by proxy reporting, health care consciousness, level of living and recall lapse. Under reporting of untreated ailments arises also because of these reasons. More often in morbidity surveys it is the untreated ailments that are more likely to be under reported than treated ailments. All the same, a sizeable proportion of the ailments reported by respondents in a population-based survey does not receive medical treatment. It is well known that the utilisation of available health care services is dependent on many factors including recognition of illness, perceived efficiency of available health care, access to health care and pricing factors.[13] Therefore an examination of untreated ailments will be useful in understanding the equity in access to health care in a population.

An untreated ailment is a common phenomenon in India, which is reported to be higher in rural areas than in urban areas.[14] Surveys have pointed out that 9 to 17 per cent of ailments in the population remain untreated.[15] The level of untreated ailments is even higher according to micro level studies like Madhiwala *et al.,* 2000[16] and Nandraj *et al.,* 2001[17], which also show that untreated ailments are higher among females than males. In fact these two surveys used female investigators and the respondents were women members in the household, which enabled them to bring out the health problems of females, where risk of reporting an ailment as well as chances of seeking treatment are lesser than for males. Another study finds that 16 per cent of ailments of the women interviewed remained untreated, which is attributed to the fact that women accept such symptoms as part of their normal life and do not seek treatment.[18] Again there is evidence to show that the illiterate households rely more than educated households on self medication and advice from untrained medical personnel, leading to a high level of untreated ailments among them.[19]

Here, we analyse prevalence of untreated ailments (Table 2) as well as reasons of non-treatment of ailments in India using NSS 52nd Round data. As per the survey definition, untreated ailments included self-medication and home remedies and no recourse to health care. About 17 per cent and 9 per cent of ailments remained untreated in rural areas and urban areas respectively. Results show untreated ailments to be higher

- in rural areas than in urban areas,
- among females than males,
- SC/ST population than among non-SC/ ST population,
- in lower MPCE quartile as compared to higher MPCE quartile groups.

The observation that females are at a higher risk of having untreated ailments was clearer

---

[13] Murray C.J.L. and L.C. Chen (1992) Understanding Morbidity Change, *Population and Development Review*, 18 (3): 481-503.

[14] Duraisamy, P. (1995) Morbidity in Tamil Nadu: Levels, Differentials and Determinants, *Economic and Political Weekly*, 33(17): 982-990.

[15] *Sundar, Ramamani (1995) Household Survey of Health Care Utilisation and Expenditure, Working Paper No 53, New Delhi: National Council for Applied Economic Research.*

[16] *Madhiwala, N. S. Nandraj and R. Sinha (2000)* Health Households and Women's Lives: A Study of Illness and Child Bearing among Women in Nasik District, *Mumbai: Centre for Enquiry into Health and Allied Themes.*

[17] Nandraj S., N. Madhiwala, R. Sinha, and A. Jesani (1998) *Women and Health Care in Mumbai*, Mumbai: Centre for Enquiry into Health and Allied Themes.

[18] Bhatia, J.C. and J. Cleadland (2001) Health Care Seeking and Expenditure by Young Indian Mothers in the Public and Private Sector, *Health Policy and Planning,* 16(1): 55-61.

[19] Visaria, P., A. Gumber and P. Jacob (1996) Morbidity, Health Care Utilisation and Expenditure Pattern in Andhra Pradesh, Kerala, Madhya Pradesh and Punjab 1986-87, *Ahmedabad: GIDR*

Table 2
Per cent of Ailments Which Were Untreated by Sex, Social Group and MPCE Groups, India 1995-96

	Rural	Urban
Sex		
Male	15.8	8.1
Female	18.3	8.8
Social Group		
ST	21.5	9.4
SC	18.1	8.4
Others	16.8	8.5
MPCE quartile		
0-25	23.1	13.2
25-50	18.1	7.9
50-75	17.2	6.4
75-100	11.1	5.8
Total	17.1	8.5

Source: Computed from 52nd round NSS data based on Schedule 25.0

Table 3
Reasons Reported for Non Treatment of Ailments by MPCE Quartile Groups, India 1995-96

Reason	Sex		Social Group		MPCE Quartile					
	Male	Female	ST	SC	Others	0-25	25-50	50-75	75-100	Total
Rural										
No medical facility	8.5	9.6	25.7	6.4	7.4	14	7.7	7.3	5.4	9.1
Lack of faith	4.5	3.1	3.1	6.6	3	3.9	4.2	3.7	3	3.7
Long waiting	0.8	0.2	0.1	0.8	0.4	0.5	0.8	0.2	0.3	0.5
Financial problem	25.6	23.7	20.8	33.2	22.6	31.7	22.4	21.4	19.9	24.6
Ailment not serious	50.4	53.2	40.5	43.8	55.9	41.8	54.6	56.4	58.7	51.9
Others	10.2	10.3	9.7	9.3	10.7	8.1	10.3	11	12.7	10.1
Total	100	100	100	100	100	100	100	100	100	100
Urban										
No medical facility	0.9	0.7	3	2.1	0.5	1.1	1.3	-	-	0.8
Lack of faith	5.5	5.1	-	5.9	5.9	8.3	5.7	0.8	1.9	5.3
Long waiting	1.1	1	4	0.1	1.2	0.4	1.9	1	1.8	1.1
Financial problem	17.7	21.6	12.7	34.6	17.5	30.7	11.7	15.6	10.3	20
Ailment not serious	64	56	57.7	43.7	62.5	46.5	68.2	68.9	73.7	60.2
Others	10.7	15.6	22.7	13.7	13	13	11.2	13.7	12.3	12.6
Total	100	100	100	100	100	100	100	100	100	100

Source: Computed from 52nd round NSS data

in rural areas than in urban areas. There is a decline in the share of untreated ailments from the lowest to highest MPCE groups from 23 per cent to 11 per cent in rural areas and from 13 per cent to 6 per cent in urban areas. It is evident that the risk of untreated ailments increases with poorer physical as well as financial access to health care services.

Analysis of reasons reported for non-treatment of ailments showed that among the untreated ailments reported, 'ailment not serious' was cited as the major reason for not seeking treatment. The proportion reporting 'ailment not serious' was 52 per cent in rural areas and 60 per cent in urban areas. At the same time 25 per cent and 20 per cent reported 'financial problem' as a reason for not seeking treatment in rural and urban areas respectively. A notable proportion of ailments in rural areas remained untreated because of lack of medical facilities. Rural-urban differentials showed that the proportion not receiving treatment because of 'financial problem' and 'lack of medical facility' to be higher in rural areas than in urban areas. Gender differentials were only marginal in the case of reasons reported for non-treatment of ailments. Caste wise differentials showed the reason 'financial problem' to be severe among SC population in both rural and urban areas. The unusual observation that the reason 'financial problem' is less of an issue for ST population might be due to their low level of perceived morbidity (Table 1). Further, the reason 'non availability of health facility' is a prominent reason reported by ST population, with 26 per cent amongst them reporting this reason from rural areas. This is expected as tribal settlements are usually in remote pockets of rural areas. There is a clear decline in number of persons not seeking care because of non availability and financial problems from the lowest MPCE categories to the highest MPCE categories. Around 31 per cent of the untreated ailments in 0-25 MPCE quartile group, which incidentally has the largest share of untreated ailments (see Table 2) were because of financial reasons. The class differentials and rural-urban differentials indicate that the level of untreated ailment depends on the economic background of the ailing person and their exposure to health care services.

Source of Medical Care

Government owned public sector health care services are provided through a vast net-work of teaching hospitals, general hospitals, district and sub district hospitals, community health centres, primary health centres, municipal dispensaries and maternity homes and sub centres. The only other alternative source of health care in the country is the private health care sector where the utilisation is mainly determined by the potential to pay for health care. The presence of a voluntary/ charitable sector is limited as one can see that only about 4 per cent and 1 per cent uses services in this sector for inpatient treatment and outpatient treatment respectively.[20] In almost all the national level studies the level of utilisation of health care services from the private sector is higher than from that of the public sector (NSSO, 1992; NCAER, 1992; Sundar 1995[21]; NSSO 1998). In fact all these studies clearly indicate class differentials in utilisation of health care services from public/ private sector. Apart from this between 1986-87 and 1995-96 there has been a decline in the proportion seeking health care services from the public sector from about 27 per cent to 19 per cent for outpatient care services and from 60 per cent to 44 per cent for inpatient care services.[22] Here the issue is that the utilisation pattern does not necessarily reflect their actual choice of health care. For example a study in Mumbai showed that, it is mainly the non-availability of public health care services in close proximity to their habitation

[20] NSSO,1998
[21] Sundar, Ramamani (1995) *op.cit.*
[22] *NSSO 1998.*

that forces people to seek care from the private sector.[23]

We examine below the inequalities inequities in utilisation of health care services from public/other sources (Table 4). Here 'public source' includes; public hospital, primary health centres/community health centres(PHC/CHC), public dispensaries and ESI doctor/hospital. The 'other sources' is basically the private sector comprising 'private hospitals, private nursing homes, private doctors and charitable institutions. The percentage utilising health care services in the public sector for inpatient care services was 45 per cent and 43 per cent in rural areas and urban areas respectively. Selection of source of treatment for inpatient care services was not found to be influenced by gender of the ailing patient. It is very clear that the ST and SC population are relying heavily on public sources for inpatient treatment. Here, more than the caste status it is their lower ability to pay that contributes to their high level of dependence on the public sector.

About 61 per cent of the lower MPCE quartile groupof the population in both rural and urban areas utilised services in public sector for inpatient care., in the lower MPCE quartile group. At the same time in the higher MPCE quartile group, the proportion using services in the public sector was 36 per cent and 28 per cent in rural areas and urban areas respectively. This shows that the economic background of the ailing person is a crucial factor that determines source of utilisation of inpatient care services. All this underlines the critical role of the public sector in maintaining equity in access to heath care in India.

Unlike in the case of inpatient care services, the proportion utilising outpatient care services from the public sector was only about 20 per cent. Differentials in level of utilisation of outpatient care services from public sector by gender, residence and economic background of patients were only marginal. The fact that outpatient care services are relatively very much cheaper than inpatient care services and easily accessible through a large network of qualified and unqualified medical practitioners might have contributed to this phenomenon. Still the level of use of public health care services is much higher among ST population (30 per cent in rural areas and 27 per cent in urban areas) than in other sub groups.

Out of Pocket Expenditure on Medical Treatment

Inequalities due to financial burden of accessing of health care are most likely to be best reflected in out of pocket expenditure for health care. Information on health care expenditure incurred on treatment of ailments has been gathered in a number of studies in India. These studies shown that fees and medicines accounted for at least two thirds of the expenditure on medical care expenses (Duggal and Amin, 1989[24]; Kannan, et al. 1991[25]; Sundar, 1992[26]). Notable variations also exist in this out-of-pocket expenditure on medical care. Average expenditure on medical care was found to rise with monthly per capita consumer expenditure or per capita income of the household (NSSO, 1992; Visaria and Gumber 1994; Rajarathnam, et al.1996[27];

[23] Dilip T.R. and Duggal R (2003) *Demand for Public Health Care Services in Mumbai*, Mumbai: CEHAT

[24] Duggal, R. and S. Amin (1989) *Cost of Health Care: An Household Level Survey in an Indian district*, Bombay: Foundation for Research in Community Health.

[25] Kannan, K.P. K. R. Thankappan, V. Raman Kutty and K. P. Aravindan. (1991) *Health and Development in Rural Kerala: A Study of Linkages between Socio-economic Status and Health Status*, Trivandrum: Kerala Shastra Sahithya Parishad.

[26] Sundar, Ramamani (1992) Household Survey of Medical Care', *Margin* 24(2): 169-175.

[27] Rajarathnen J. *et al.* (1996) Morbidity Pattern Health Care Utilisation and Per Capita Expenditure in Rural Population of Tamil Nadu, *National Medical Journal of India,* 9(6): 91-96.

Table 4
Source of Inpatient and Outpatient Treatment, India 1995-96

	Rural Source of treatment			Urban Source of treatment		
	Public	**Other**	**Total**	**Public**	**Other**	**Total**
Inpatient Care						
Sex						
Male	43.9	56.1	100	43.8	56.2	100
Female	47	53	100	42.3	57.7	100
Social Group						
ST	66.2	33.8	100	57.8	42.2	100
SC	53.8	46.2	100	56.8	43.2	100
Others	41.1	58.9	100	40.2	59.8	100
MPCE Quartile						
0-25	61.2	38.8	100	60.8	39.2	100
25-50	57.7	42.3	100	48.3	51.7	100
50-75	46.8	53.2	100	40.3	59.7	100
75-100	35.6	64.4	100	28.3	71.7	100
Total	**45.3**	**54.7**	**100**	**43.1**	**56.9**	**100**
Outpatient Care						
Sex						
Male	19.5	80.5	100	18.5	81.5	100
Female	20	80	100	18.3	81.7	100
Social Group						
ST	30.1	69.9	100	27.6	72.4	100
SC	18.5	81.5	100	22	78	100
Others	19	81	100	17.6	81.6	100
MPCE Quartile						
0-25	21.8	71.2	100	21.5	78.5	100
25-50	17.7	82.3	100	18.4	81.6	100
50-75	21.2	78.8	100	20	80	100
75-100	18.7	81.3	100	13.5	86.5	100
Total	**19.7**	**80.3**	**100**	**19.9**	**80.1**	**100**

Source: Computed from 52nd round NSS data based on Schedule 25.0.

Visaria, et al. 1996[28] Satya Sekar, 1997[29]; NSSO, 1998). However the medical care expenditure incurred by a poor household in comparison to its expenditure/earning potential is likely to be much higher than that of the rich (Krishnan, 1999). Analysis of out of pocket expenditure is necessary to understand the reasons behind differentials observed above in terms of willingness to perceive illness and seek care and decision to seek care from public/ private sources, across the sub groups under study.

Average medical expenditure incurred on treatment of an ailment in an inpatient and outpatient care unit is presented in Table 5. Here medical expenditure includes expenditure on medicines, fees paid for medical and para-medical services, charges for diagnostic services, charges for operation and therapy, charges for ambulance and cost of oxygen, blood, etc. For inpatient care services, the average medical expenditure was 2976.00 rupees in rural areas and 3618.00 rupees in urban areas. Expenditure on medical treatment was higher in urban areas than in rural areas in both public and private sources of treatment.

Cost of inpatient care is higher for males than females in both the sources of treatment. Average medical expenditure was lowest for ST groups, followed by SC groups and 'Others' respectively. Average medical expenditure was found to increase with every increase in MPCE quartile group and that too very sharply in the 75-100 MPCE quartile group. Average expenditure varied between lowest and highest MPCE quartile groups from 899.00 rupees to 4875.00 rupees in rural areas and from 941.00 rupees to 8122.00 rupees in urban areas. These two observations elaborate the pattern of selection of source for health care services across classes in the country. We have already seen that the majority in the poorest quartile depend on public health care services for inpatient care services (Table 4) while the richest quartile depend mostly on the private sector. Still, the richest quartile is spending more on health care in both the public and private sector than the poorest quartile. This indirectly shows that the poor customarily seek care from the private sector for treating ailments that are not costly while the rich chiefly seek care from public sector sources for treating ailments that involve higher costs.

Average medical expenditure for treatment of an ailment in an outpatient care unit was 158.00 rupees in rural areas and 178.00 rupees in urban areas. As in the case of inpatient care services the outpatient care treatment was relatively costly in urban areas than in rural areas in both public and private sources of treatment. Here also the average medical expenditure on treatment of ailment is higher for males than females. There was a consistent increase in the average expenditure incurred on treatment of ailment with every increase in socio-economic status, in both these sources of treatment.

It was clear that the rich were spending more on medical care, which was found to be true even for public health care sectors, which further strengthens the earlier findings that that the rich prefer public sector sources of treatment for handling treatments which are relatively expensive. Earlier it was observed that the level of utilisation of health care services by the rich from public sector sources was relatively lower among high MPCE groups. Poor spend less if they are going to public/private sector while the rich are spending more even if they are using the public sector services. Moreover the services in the public sector are not as cheap as they ought to be and patients were spending a

[28] Visaria, P., A. Gumber and P. Jacob (1996) Morbidity, Health Care Utilisation and Expenditure Pattern in Andhra Pradesh, Kerala, Madhya Pradesh and Punjab 1986-87, *Ahmedabad: GIDR*

[29] Satya Sekar P. (1997) Levels of Morbidity in Andhra Pradesh, *Economic and Political Weekly*, XXXII(13): 663-72.

substantial amount from their pocket for treatment. According to the national level facility survey (IIPS 2001), 11 per cent of the district hospitals, 31 per cent of sub-district hospitals, 51 per cent of CHC's and 44 per cent of PHC's were short of basic equipment for functioning. Along with this 16 per cent of district hospitals, 54 per cent of sub-district hospitals, and 75 per cent of CHC's and 62 percentage of PHC's were short of adequate staff for efficient functioning. Such shortages in staff and equipment in public facilities force the patients ,especially the poor, to go to private health care facilities for selected services, resulting in higher out of pocket expenditure.

Financing of Out of Pocket Expenditure on Health Care Services

Since there is a high level of out-of-pocket expenditure while accessing inpatient care services it is necessary to see how the

Table 5
Average Medical Expenditure (in rupees) Incurred, During each Episode of Inpatient Treatment and Outpatient Treatment by Source of Treatment, India 1995-96

Inpatient care/ Outpatient care	Average Medical Expenditure (in rupees)					
	Rural			Urban		
	Source of treatment			Source of treatment		
	Public	Other	Total	Public	Other	Total
Inpatient care						
Sex						
Male	1980	4766	3544	2202	5638	3859
Female	1469	3032	2297	1652	4724	3383
Caste						
ST	943	2419	1442	1127	2873	1802
SC	1418	6465	3748	1287	2842	1911
Others	1966	3535	2890	2148	5323	3977
MPCE quartile						
0-25	642	1305	899	580	1547	941
25-50	811	1785	1223	1047	2387	1708
50-75	1159	2299	1766	1647	3172	2497
75-100	3239	5777	4875	5670	9180	8122
Total	**1739**	**4001**	**2976**	**1945**	**5001**	**3618**
Outpatient care						
Sex						
Male	124	173	163	153	191	184
Female	99	163	150	141	180	173
Caste						
ST	84	96	92	114	106	108
SC	126	154	149	154	157	156
Others	112	179	166	147	192	184
MPCE quartile						
0-25	80	121	112	172	129	139
25-50	92	145	136	110	169	158
50-75	117	165	155	115	198	181
75-100	145	219	205	216	244	241
Total	**111**	**168**	**158**	**147**	**185**	**178**

Source: Computed from 52nd round NSS data

Table 6
Reported Sources Through Which Inpatient Care Treatment has been Financed, India

Source	Rural	Urban
Current income	38.4	40.2
Past savings	38	37.2
Sale of assets	6.6	2.7
Borrowings	39.7	22.9
Other Sources	10.7	8.6
Employer	1.1	3.7
Other agencies	0.1	0.5
Total#	**100**	**100**

Source: Computed from 52nd (1995-96) Round NSS Data
 # percentages will not add up to hundred as multiple sources have been reported

households of ailing persons are meeting their health care costs. The burden of health care will be more among sections that do not come under any health insurance scheme. Only 10 per cent of the Indian labour force is in the organised sector and a large part of these 27 million employees and their families have access to insurance/medical benefits to cover treatment costs[30]. Even many of the employees in the private sector, who have health insurance, come under the above schemes. The NSS data [31] showed the insurance scheme enrolment rate to be negligible. Another estimate says that about 10 per cent of households in India receive support from different agencies for medical treatment, which seems to be an over estimate. Not only is the enrolment in insurance schemes low, the willingness as well as ability to participate in such schemes is low. For example, a study in Delhi showed that most low and many middle income households considered the premium beyond their reach and even the middle income groups thought that there was no need to for such schemes as they had not under gone any major illness [32]. There are studies from other regions that point to the willingness of the population to participate in health insurance schemes[33]. These schemes are yet to become popular[34]. The major factor towards lack of interest of insurance companies in promoting voluntary medical insurance is because of low profitability, high risk and lack of demand[35]. In this situation one has to examine how expenditure on health care affects the overall economic condition of the ailing person's household, by analysing the source of financing of out of pocket expenditure on health care services.

The present mode of finance reported to meet out of pocket expenditure incurred while accessing inpatient treatment in given in Table 6. This is based on details of expenditure incurred during each episode of hospitalisation reported during the one year

[30] Gill, Sonya and S.N. Kavadi (1999) *Health Financing and Costs- A comparative Study of Trends in 18 Countries with Special Reference to India*, Mumbai/Pune: Foundation for Research in Community Health.
[31] Visaria, P., A. Gumber and P. Jacob (1996) Morbidity, Health Care Utilisation and Expenditure Pattern in Andhra Pradesh, Kerala, Madhya Pradesh and Punjab 1986-87, *Ahmedabad: GIDR*
[32] Gupta, Indrani (2000) Willingness to Avoid Health Costs Results From a Delhi Study, *Discussion Paper Series no. 20/000*, New Delhi: Institute of Economic Growth
[33] Mathiyazhajan, K. (1998) Willingness to Pay for Rural Health Insurance Through Community Participation in India, *International Journal of Health Planning and Management*, 13: 47-67.
[34] Gumber, A. and V. Kulkarni (2000) *Health Insurance for Workers in Informal Sector, Detailed Results from a Pilot Study*, New Delhi: National Council for Applied Manpower Research.
[35] Gumber, (2002) Gumber. A. (2002) Structure of India's Health Care Market: Implications for Health Insurance Sector, *Regional Health Forum*, Volume 4.

Table 7
Share of Each Source in Total Reported out of Pocket Expenditure on Inpatient Care Treatment, India

Source	Rural	Urban
Current income	11.4	13.3
Past savings	31.8	37.2
Sale of assets	9.2	4.5
Borrowings	38.8	25.6
Other sources	7.8	10.0
Employer	0.8	8.7
Other agencies	0.2	0.7
Total	**100.0**	**100.0**

Figures based on reported expenditure in rupees from different sources
Source: Computed from 52nd Round (1995-96) NSS data.

reference period used in the survey. Major sources of financing in India are current income, past savings and sale of assets/ borrowings. It is visible that in the absence of a cost sharing mechanism, the expenditure on medical care especially inpatient care services affects their current income and present saving. About 38 per cent used their savings to pay for inpatient care treatment.

The most critical observation is that health expenditure related borrowing is reported by 23 per cent in urban areas and 40 per cent in rural areas. Another 3 per cent in urban areas and 7 per cent in rural areas had to sell their household assets (jewellery, animals, other physical assets) to meet the expenditure on inpatient care treatment. Only around 4 per cent in urban areas and 1 per cent in rural areas have received support from employer or other agencies to meet their health care expenses. Over all it shows the burden associated with inpatient care treatment to be higher in rural areas than in urban areas.

To make it clearer, the share of each source in reported medical expenditure on inpatient care treatment is computed and presented in Table 7. Past savings accounted for 37 per cent and 32 per cent of out of pocket expenditure on inpatient care treatment in urban and rural areas respectively. Out of the total out of pocket expenditure reported in the survey, 26 per cent and 39 per cent has been raised through borrowings in urban areas and rural areas respectively. Another 5 per cent in urban areas and 9 per cent in rural areas has been raised through sale of physical assets. As expected the contribution of employer and other agencies combined was only 9 per cent in urban areas and a further low of 1 per cent in rural areas. Burden of paying for health care is much higher in rural areas, where the coverage of public health care services is poor and where majority of work force is in the unorganised sector.

Over all there is strong evidence to believe that expenditure on inpatient care treatment is pushing a large proportion of hospitalised persons household's into debt i.e. borrowing/ sale of assets. Here only the out of pocket expenditure on medical care is examined and the situation would be even worse, if we look at expenses in terms of wages lost by the patient/ accompanying person due to hospitalisation. The differentials in household level economic consequences of paying for health care across subgroups under examination is presented in Table 8.

Altogether, the proportion of ailing persons households falling into debt (borrowing/sale of assets) due to out-of pocket expenditure incurred on inpatient care treatment was about 44 per cent in rural areas and 25

Table 8
Percentage Resorting to Sale of Physical Assets/ Borrowing and Average Amount Raised Through Borrowing/Selling of Physical Assets, to Finance out of Pocket Expenditure on Inpatient Care Treatment, India 1995-96

	% borrowing/ selling assets to finance treatment		Avg. amount (in Rs.) raised through borrowing/selling assets	
	Rural	**Urban**	**Rural**	**Urban**
Sex				
Male	46	26	1561(44)	1178 (31)
Female	40.5	23.3	1143 (50)	1085 (32)
Social Group				
ST	49.7	25.4	851 (59)	592(33)
SC	53.2	31.7	1386(37)	757(40)
Others	40.3	23.7	1412(49)	1213(31)
MPCE Quartile				
0-25	46.7	28.6	502(59)	368(39)
25-50	43.5	27	670(55)	689(40)
50-75	42.4	23.5	919(52)	627(25)
75-100	43.4	20.6	2138(44)	2309(28)
Source of Treatment				
Public Sector	40.3	20.9	988(57)	654(34)
Private Sector	48.5	28.2	1756 (44)	1508(30)
Total	**43.5**	**24.6**	**1371(46)**	**1140(32)**

Source: Computed from 52nd Round (1995-96) NSS data
Figures in parentheses are percentages to total average medical expenditure (refer Table 5)

percent in urban areas. The risk of resorting to sale of assets/borrowing is higher if patient is a male than for a female. The practice of resorting to sale of assets/borrowing is common across all classes in rural areas, but in urban areas the risk of debt is lesser among richer quartile groups when compared to the poorer quartile groups. It is very clear that the risk of falling into debt is much higher if treatment is sought from the private sector (49 per cent in rural areas and 28 per cent in urban areas). However the observation that 40 per cent in rural areas and 21 per cent in urban areas are falling into debt due to out of pocket expenditure, despite seeking care from public sector services is a serious issue that has to be given due attention.

The average amount raised through borrowing or sale of assets is also presented in Table 8. In short, the average amount raised through borrowings/sale of physical assets shows an almost similar relationship with average medical expenditure on inpatient care (Table 5). The amount raised through borrowings or sale of assets is higher for males than females and higher in the private sector than in the public sector. There is an inverse relationship between average amount raised through borrowing/sale of assets and socio-economic background of the patient. Also, differentials across groups in terms of proportion of expenditure met out of debt is marginal. However, the impact of such borrowing is likely to remain for a longer period on the poorer socio-economic sections where the debt recovering potential is lower than those from better off sections. Further, when we look at debt as a proportion to medical expenditure, we find the same inverse relationship with class and caste. Interestingly, the debt ratio for females is

higher even though the borrowed amount is lower. This probably indicates that women's access to healthcare is given importance mostly during catastrophic situations.

Access to Reproductive and Child Health Care Services

Under the newly initiated Reproductive and Child Health (RCH) programme, the major emphasis is on integrated delivery of services for fertility regulation, maternal and child health, safe abortion and reproductive tract infections and sexually transmitted diseases (RTI/STDs). If we look at budgetary allocation on health and family welfare activities we can see that the over all share in expenditure on health registered a decline, while the share on family welfare within the total budgetary allocations on health continued to grow steadily[36]. Below we examine the differential in access to RCH care services across various sub-groups of population in the country.

Antenatal Check: The NFHS- 2 collected information on antenatal check ups received by pregnant women for two most recent births in the three years preceding the survey through visiting a doctor or any other health professional in a medical facility, or during home visits from a health worker. More than one third of the pregnant women in the country have not received this check up. The percentage of pregnant women who did not receive this ANC check up was 40 per cent in rural areas and 14 per cent in urban areas. Economic background of the ailing person was found to have considerable influence on access to ANC check up, as the proportion not receiving antenatal care declined from 45 per cent in low standard of living (SLI) group to only 12 per cent in high SLI group ,nearly a fourfold difference.

Tetanus Toxoid (TT)Vaccination: An important cause of death among infants in India is neonatal tetanus. According to the national immunisation schedule, pregnant women should receive two doses of TT. However, 24 per cent of them were not receiving the same. As observed in the case of ANC, the percentage not receiving TT vaccinations was much higher in rural areas than in urban areas and in the low socio-economic class than in high socio-economic groups.

Iron Folic Acid (IFA) Supplementation: According to RCH programme a pregnant woman should consume 100 IFA tablets during pregnancy. However, 42 per cent of women are not receiving any IFA supplementation during this period. Coverage of IFA supplementation was much lower in rural areas than in urban areas. Similarly, across social groups and SLI groups, the better off sections had significantly higher coverage.

Place of Delivery: Another important thrust of the RCH programme is to encourage deliveries under proper hygienic conditions under the supervision of trained health professionals. Majority of the deliveries (66 per cent) in the country are still home deliveries. Non institutional deliveries are as high as 75 per cent in rural areas and a relatively lower 35 per cent in urban areas. Another critical observation is that about 83 per cent of deliveries among ST's who live in remote areas are non-institutional deliveries. Across SLI groups, there was a decline in non institutional deliveries from 71 per cent in low SLI groups to 36 per cent in high SLI groups.

The other indicator of access to safe delivery is births attended by a trained health professional (Doctor/Nurse/Midwives and lady health visitors (LHV's). The observation that 57 per cent (including those managed by traditional birth attendants [TBA]) of the deliveries were not attended to by health professionals further underlines poor access to safe delivery care services in the country. Proportion of births not attended by health

[36] Duggal R. (1997) Health Care Budgets in Changing Political Economy. *Economic and Political Weekly* 32: 1197-1200.

Table 9
Access to Reproductive and Child Health Care Services in India, 1998-99

	No ANC check up[1]	No TT injecti-ons [1]	No IFA tablet/ syrup [1]	Non -instit-utional delivery [1]	Births not attended by health professi-onal [1]	No post partum check up[#]	Current contrac-eptive use	Home visits by health worker[$]	Full immun-ization of child-ren [2]	Vitamin A Suppl-ement-ation for children [3]
Place of Residence										
Rural	39.8	28.2	47.5	75.3	66.2	83.9	44.7	14	36.6	27
Urban	13.6	9.9	24.3	34.9	26.6	80.4	68.2	10	60.5	38.7
Social Groups										
SC	38.2	25.8	45.4	63.2	62.8	83	44.6	13.4	40.2	27.1
ST	43.1	38.7	51.4	82.9	76.6	85.9	39.1	17.9	26.4	26
OBC	34.8	23.8	43.2	63.9	54.8	84.4	46.8	13.6	43	26.8
Others	27.9	19.2	37	59.9	50.9	81.7	53.5	11.3	46.8	34.8
Standard of Living										
Low	45.1	34.1	54	71.4	74.2	84.5	39.5	14.2	30.4	21.7
Medium	32.8	22.3	40.6	65.1	55.4	83.5	48.4	13.3	43.2	30.9
High	12.4	6.4	20.1	35.6	24.3	79.5	61.2	10.3	64.7	43.3
Total	34	24.1	42.4	66.4	57.4	73.5	48.2	13	42	29.7

Source: IIPS and ORC Macro (2000)

[1] based on information births during three years preceding the survey date

[2] percentage of children aged 12-23 months who received all immunization

[3] percentage of children aged 12-35 who received at least one dose of vitamin A supplementation

[#] for non institutional birth only

[$] ever married women who had at least one home visit by health or family planning worker 12 months preceding the survey

professionals was as high as 66 per cent in rural areas and 27 per cent in urban areas. Risk of not having a health professional at the time of delivery was found to be very high among ST and STC and in low SLI category.

Post Natal Check Up: The RCH programme recommends three post partum visits, as the health of both mother and new born child depends on care she and her new born receive during the first few weeks after delivery. The NFHS-2 gives information on post natal check up for non institutional deliveries for the three years prior to the survey. It was disturbing to see that 74 per cent of them did not receive even a single post natal check up. There were no significant differentials in seeking post-partum check up in all subgroups who have undergone non institutional deliveries.

Current Use of Family Planning: NFHS-2 shows 48 per cent of currently married women to be using some method of contraception. However this figure is quoted as low when compared to contraceptive use in other regions in Asia[37]. Current use of contraception was 68 per cent in urban areas and 44 per cent in rural areas. As one can expect, the level of contraception use was found to be lower in SC/ST and OBC groups when compared to 'others' subgroup and in low SLI category than in high SLI category.

Home Visit by Health and Family Planning Worker: Under the family welfare programme health or family planning workers are required regularly to visit each household in their assigned area to monitor various aspects of health of women and children, to motivate women to adopt appropriate health and family planning practices and deliver other selected services. Table 9 reflects the sorry state of affairs of health worker visit programme in the country. Only 13 per cent of ever married women had reported at least one home visit by health or family planning worker in the 12 months preceding the survey. The issue requires serious attention at policy level.

Immunisation of Children: The national immunisation programme is implemented on a priority basis in India, and the vaccination of children against tuberculosis, diphtheria, pertussis, tetanus, poliomyelitis and measles has been regarded as a corner stone in child health care system in the country[38]. NFHS 2 shows only 42 per cent of children aged 12-23 months to be fully immunised against these diseases. When 64 per cent of children in urban areas were full immunised only 37 per cent in rural areas had such protection. Another critical observation was that only 26 per cent of children among ST population were fully immunised. Differentials across standard of living of population shows that 65 per cent of children belonging to high SLI category were fully immunised, while only 30 per cent in low SLI category were fully immunised.

Vitamin A Supplementation of Children: The NFHS-2 also gives information on proportion of children aged 12-35 months who received at least one dose of vitamin A supplementation. Only 30 per cent of children in India are reported to have received the same. As expected, the proportion of children receiving vitamin A supplementation is high in urban areas and for those belonging to higher socio-economic stratas.

Over all the analysis shows that though the RCH programme was successful in spreading the message of family planning services across the country as well as bringing the population closer to heath care services, the programme was not highly successful in terms of other components of the RCH care services programme. There is a long way ahead to attain goals mentioned in the National Population Policy as well as the National

[37] International Institute for Population Sciences (IIPS) and ORC Macro (2000) National Family Health Survey (NFHS-2), 1998-99. Mumbai: IIPS.
[38] Ibid

Health Policy in terms of access to ante natal care, safe delivery and immunisation of children. Apart from that there are large scale inequities across population groups in accessing reproductive and child health care services in the country.

Conclusion

This paper portrays the large scale rural-urban, gender, caste and class wise inequities in access to heath care services in India. Due to limitations in availability of data, the quality of health care services component could not be explored here. Differentials in access across vulnerable sections would only widen further if we examine access to good quality health care services. Unevenness in access to health care will be lower only if the health system is responsive to needs of the population. Despite its huge size, India's health care system is unable to respond adequately to public needs mainly due to the uneven distribution and due to the unregulated nature of the private health sector. Adding to the problem is the absence of any major risk pooling mechanism to finance the health care system. This only makes inequities more adverse.

The urban bias in location of health care services is grossly responsible for the high differentials in access to health care services across rural and urban areas. One major observation that clearly substantiates our argument that strengthening of the public sector would reduce inequities in access to health care, is the case of relatively low differentials across caste and class groups in urban areas characterised by a higher concentration of health services, than in rural areas.

In the absence of risk pooling mechanisms, the health care market is behaving in such a way that capacity of ailing persons to pay for health care as become a primary determinant of access to health care in the country. Apart from this factor, differential access observed in the case of ST population is also due to poor availability of health care services in tribal areas. Besides which the SC population generally resides in remote areas and they too have a similar burden while accessing health care services. Thus the case of SC & ST population shows how caste along with class contribute to differentials in utilisation of health care services. Public sector services were widely used by these two sub groups, who have high levels of untreated ailments and a higher financial burden associated with treatment of ill health.

Gender differentials were not highly visible in the case of morbidity rates, prevalence of untreated ailment and selection of source of health care. However systematic differentials were observed in the case of expenditure on health care services. Average amount spent on treatment was always higher for males than females. The tendency to borrow money or sell assets to meet out of pocket expenditure on medical care was also higher for males than for females. This means that larger household resources were available to males as compared to females to access health care services. So this limited analysis indicates that gender differentials in access to health care is probably more due to biases within the household due to the lower status of women, rather than any bias from the provider side.

Expenditure on medical care seems to have a negative impact on economic condition of the households. Borrowing/sale of assets is widely prevalent in all classes of the study population. But the amount borrowed in comparison to average medical expenditure on treatment was higher among low socio-economic groups than the higher socio-economic groups. Impact of such borrowing will leave an impact for a longer period on these poor sections where debt recovering potential is lower than their counterparts who are relatively rich. This risk of falling into debt might have acted as a barrier for the poor in accessing health care services, which leads to a low over all level of hospitalisation and reported morbidity among them.

Altogether the challenges at policy level will be to find mechanisms to provide high quality services to vulnerable sections in the population and thus enable these population groups to attain the same level of access to health care enjoyed by richer groups. Health care needs of the vulnerable sections will be fulfilled only if we improve the coverage and efficiency of public health care services in remote areas.

Appendix I
Prevalence of Ailments and Annual Hospitalisation Rates, India 1995-96

state/ u.t.	Prevalence of ailment in last 15 days						Annual Hospitalisation Rate	
	Acute ailment		Chronic ailment		Any ailment			
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Andhra Pr.	43	41	22	20	64	61	14	17
Arunachal Pr.	23	41	1	1	24	42	33	32
Assam	72	74	9	13	80	86	9	16
Bihar	26	32	10	10	36	41	5	12
Goa	27	27	18	7	44	34	26	25
Gujarat	35	26	11	10	46	36	14	21
Haryana	47	46	14	17	61	63	25	25
Himachal Pr.	64	53	29	15	90	66	21	19
J & K	43	46	9	8	52	54	11	17
Karnataka	31	28	14	12	44	40	14	18
Kerala	80	61	38	27	118	88	70	65
Madhya Pr.	36	30	5	7	41	38	7	15
Maharashtra	37	35	15	13	52	48	19	26
Manipur	5	2	3	1	8	2	12	10
Meghalaya	33	33	1	1	35	34	13	25
Mizoram	14	11	4	0	18	12	19	25
Nagaland	30	42	1	4	31	46	12	14
Orissa	56	52	6	10	62	62	13	16
Punjab	56	60	20	25	76	85	14	17
Rajasthan	22	24	6	9	28	33	8	14
Sikkim	34	18	3	4	38	22	6	10
Tamil Nadu	39	44	13	14	52	58	18	23
Tripura	106	75	11	23	117	96	34	42
Uttar Pr.	49	57	12	15	61	72	8	14
West Bengal	47	49	19	16	65	65	11	22
A. & N. Island	25	14	2	1	27	15	45	34
Chandigarh	135	85	18	48	153	133	13	21
Dad. & Nag. Hav.	48	55	9	2	57	57	35	16
Daman & Diu	20	34	23	9	43	43	22	51
Delhi	22	31	0	12	23	43	14	13
Lakshadweep	34	46	26	2	57	48	49	53
Pondichery	87	57	4	10	91	67	44	22
All India	42	41	13	14	55	54	13	20

Source: NSSO (1998)

Appendix II
Level of Untreated Ailments and Use of Public Sector for Treatment by States, India 1995-96

	% of ailments untreated		% using public for outpatient treatment		% using public for inpatient treatment	
	Rural	**Urban**	**Rural**	**Urban**	**Rural**	**Urban**
Andhra Pr.	25.5	15	23.3	11.5	22.5	36.2
Arunachal Pr.	40.9	11	47.6	82.8	65.5	89.5
Assam	44	36.4	45	34.9	73.8	65.2
Bihar	21.9	15.5	5.1	19.1	24.7	34.6
Goa	0.3	13.3	8.5	16.2	45.4	39.6
Gujarat	7.9	3.5	18.4	18.2	32.1	36.9
Haryana	3	1.6	13.4	10.1	30.5	37.3
Himachal Pr.	12.5	2.8	38.7	48.1	86.5	91.3
Jammu & Kashmir	6.3	2.4	44	28.2	97.7	95.9
Karnataka	22.3	8.6	31.6	18.7	45.8	29.8
Kerala	11.7	10.8	29.8	30.5	40.1	38.4
Madhya Pr.	16.3	6.7	25.8	20	53.3	56
Maharashtra	11.4	7.7	11.9	11.6	31.2	31.8
Manipur	41.8	69.7	34.2	0	89.2	78.3
Meghalaya	60.3	39.6	75.1	21.4	94.3	52
Mizoram	37	42.2	79.6	60	92.5	84
Nagaland	11.7	3	26.8	6.1	84.1	50.4
Orissa	32.3	13.4	37.8	32.4	90.6	81
Punjab	1	3.5	7	7.2	39.4	27.6
Rajasthan	10.2	10.4	40.7	40.9	64.9	73.1
Sikkim	18.7	3.5	68.2	40.8	96.1	80.9
Tamil Nadu	22.4	8	30.1	24.3	41.1	35.7
Tripura	43.4	25.6	28.3	11.3	92.5	73
Uttar Pr.	9.4	6.5	4.2	10.3	47.1	39.8
West Bengal	19.9	10.1	12.9	13.8	82	72.1
A. & N. Islands	20.2	15.1	72.8	60.4	99.8	93.8
Chandigarh	7	5.2	36.5	61.5	78.8	67
Dad. & N. Hav.	1	0	49.7	5.2	48	23.4
Daman & Diu	1.8	0	59.2	26.6	26.2	61.8
Delhi	8.8	15.2	43.1	25.8	25.1	51
Lakshadweep	0	0	71.5	83.6	73.9	71.8
Pondichery	6.1	18.7	77	15.6	81.8	76.1
All India	17.3	9.3	18.2	17.4	45.3	43.1

Source: NSSO (1998)

Appendix III
Average Total Expenditure on Inpatient and out Patient Treatment by States, India 1995-96

	Average. Total Expenditure on outpatient treatment		Average Total Expenditure on inpatient treatment	
	Rural	**Urban**	**Rural**	**Urban**
Andhra Pr.	116	143	6428	4886
Arunachal Pr.	490	219	1464	2909
Assam	83	110	1945	3790
Bihar	220	176	3860	3724
Goa	197	123	3291	2590
Gujarat	144	211	2663	3327
Haryana	183	402	3224	6537
Himachal Pr.	97	143	2530	2643
Jammu & Kashmir	214	164	2548	3612
Karnataka	91	155	2997	3593
Kerala	119	108	2293	1927
Madhya Pr.	129	351	2191	2774
Maharashtra	144	170	3089	3997
Manipur	351	194	4058	5650
Meghalaya	32	83	857	1375
Mizoram	37	86	536	948
Nagaland	270	790	3026	7809
Orissa	99	117	1641	3868
Punjab	173	155	4988	5712
Rajasthan	172	176	3038	3149
Sikkim	63	252	1854	5558
Tamil Nadu	79	117	2840	3934
Tripura	55	129	614	2356
Uttar Pr.	202	212	4349	5896
West Bengal	105	124	1957	3217
A. & N. Islands	25	50	133	1221
Chandigarh	36	200	1720	3701
Dad. & N. Hav.	85	112	1262	4285
Daman & Diu	73	114	5097	990
Delhi	138	171	4443	6170
Lakshadweep	56	5	1385	1708
Pondichery	11	45	381	3735
All India	144	175	3202	3921

Source: NSSO (1998)

Reproductive and Child Health Indicators by States, India 1998-99

State	% with at 'least one antenatal checkup[1]	% receiving 2 or more TT injections[1]	% receiving IFA tablet/ syrup [1]	% births in medical institutions[1]	% with post partum checkup within 2 months of birth[2]	Contraceptive use	% of children fully immunized [3]
Delhi	83.5	84.9	77.8	59.1	19.5	63.8	69.8
Haryana	58.1	79.7	67	22.4	15.7	62.4	62.7
Himacchal Pradesh	86.8	66.2	85.6	28.9	21.2	67.7	83.4
Jammu & Kashmir	83.2	77.7	70.8	35.6	27.6	49.1	56.7
Punjab	74	89.9	79.6	37.5	20.3	66.7	72.1
Rajasthan	47.5	52.1	39.3	21.5	6.4	40.3	17.3
Madhya Pradesh	61	55	48.9	20.1	10	44.3	22.4
Uttar Pradesh	34.6	51.4	32.4	15.5	7.2	28.1	21.2
Bihar	36.3	57.8	24.1	14.6	10	24.5	11
Orissa	79.5	74.3	67.6	22.8	19.2	46.8	43.7
West Bengal	90	82.4	71.6	40.1	31.6	66.6	43.8
Arunachal Pradesh	61.6	45.6	56.3	31.2	10.5	35.4	20.5
Assam	60.1	51.7	55	17.6	25.5	43.3	17
Manipur	80.2	64.2	50	34.5	27.1	38.7	42.3
Meghalaya	53.6	30.8	49.5	17.3	20.8	20.2	14.3
Mizoram	91.8	37.8	72.7	57.7	20.9	57.7	59.6
Nagaland	60.4	50.9	42.5	12.1	4.3	30.3	14.1
Sikkim	69.9	52.7	62.4	31.5	38	53.8	47.4
Goa	99	86.1	94.7	90.8	41	47.5	82.6
Gujarat	86.4	72.7	78	46.3	10.4	59	53
Maharashtra	90.4	74.9	84.8	52.6	29.8	60.9	78.4
Andhra Pradesh	92.7	81.5	81.2	49.8	44.9	59.6	58.7
Karnataka	86.3	74.9	78	51.1	35.3	58.3	60
Kerala	98.8	86.4	95.2	93	27.4	63.7	79.7
Tamil Nadu	98.5	95.4	93.2	79.3	53	52.1	88.8
India	65.4	66.8	57.6	33.6	16.3	48.2	42

Source: IIPS and ORC macro (2000)

[1] maternal care indicators based on births during last 3 years

[2] post partum carte in the case of non institutional births

[3] children of age 12-23 months vaccinated against BCG, measles doses of DPT and polio vaccines

Private Health Sector in India- - Raising Inequities

Rama Baru

Introduction

This chapter proposes to examine the trends in privatisation in the health service system over the last four decades. It provides an overview of the extent of privatisation in the different sub systems of the health service system viz. provisioning, financing, technology/drugs and medical/para medical education. In addition it also examines the accommodation of private interests in the public sector. Based on available studies this paper analyses the characteristics of the private sector at the primary, secondary and tertiary levels of care in terms of social background of promoters, infrastructure available, services offered, manpower employed, cost of services etc. The insights from these studies will form the basis to comment on the need for regulation of various aspects of the private sector. It also examines a few initiatives for regulation of the private sector including the status and possibilities for self-regulation.

The last four decades have seen the expansion of the private sector in health care. A lot of the public debate and research has focussed on the private sector in the provisioning of medical care. While the analysis of the private sector in provisioning of services is very important, other aspects of the health service system that include technology, drugs, medical and paramedical education, financing and research, also require to be studied. This then helps to locate the extent and nature of privatisation in the health services system and has implications for its regulation.[1]

The significant presence of the private sector at the primary, secondary and tertiary levels of care is well acknowledged as shown by a number of studies. A number of micro studies on utilisation have in fact highlighted the dependence of different strata of a given population on private practitioners, both trained and untrained, for primary level care across states.[2]

These studies have shown that there is plurality among the private practitioners ranging from untrained practitioners dispensing allopathic medicines to a range of practitioners who practice traditional, folk and indigenous systems of medicine. Many of them dispense allopathic medicine along with traditional cures. These practitioners are not restricted to urban areas alone and their presence is extensive even in rural areas.[3] Analyses of the various rounds of National Sample Survey data on utilisation of medical service in fact corroborate the findings from a range of micro studies. For minor ailments a majority of the people use the services of a private practitioner. This was seen in both rural and urban areas and across states.

---

[1] Baru et al ,(2001) 'State and Private Sector in India: Some Policy Options' in Private Health Sector in India: Review and Annotated Bibliography, Mumbai, CEHAT, IIT & Centre of Social medicine and Community Health, Jawaharlal Nehru University.

[2] Bisht, R.(1993), 'Understanding Environmental Health: A study of Some Villages in Pauri Garhwal, Unpublished M.Phil dissertation, Jawaharlal Nehru University, New Delhi; Soman,K. (1992) 'An Exploratory Study of Social Dynamics of Women's Health in Adityapur Village of Birbhum District' Unpublished M.Phil dissertation, JNU, New Delhi; Krishnan, T.N. (1994) Access to Health and Burden of Treatment: An Interstate Comparison' Discussion Paper Series no. 2, Studies in Human Development in India. UNDP project, Trivandrum ; Kakade, N.(1998) 'The Development of Public Health Services and their Utilisation: A Case Study of the Bombay Municipal Corporation' Unpublished M.Phil Dissertation, Jawaharlal Nehru University, New Delhi.

[3] Vishwanathan & Rohde: (1990) Diarhoea in Rural India: A Nationwide Study of Mothers and Practitioners: An All India Summary, Indian Market Research Bureau and UNICEF, New Delhi

When it comes to hospitalisation the picture is more complex. Here the extent of growth of private medical care at the secondary and tertiary levels, its variations across states and the differential purchasing power across various strata determines the utilisation pattern. For example, the analyses showed that the economically developed states had a higher utilisation of the private sector and those who used these services were largely from the middle and upper middle income groups. In those states where the private sector was not significant, the reliance on the public sector was very high. In fact one could characterise the structure of the private sector as pyramidal, with the base consisting of the large number of individual practitioners who maybe trained or untrained. The middle level is occupied by institutions providing both out patient and inpatient care and promoted largely by single entrepreneurs, mostly doctors. These are mostly located in urban areas but in some states they are located in towns and even villages. The apex of the pyramid is occupied by large hospitals that are promoted as trust, private limited or corporate enterprises. These offer super speciality services and are located largely in the metropolises. This segment would constitute roughly around one percent of the total beds in the private sector. Analysis of The National Sample Survey 42nd round shows that across states there is a high dependence on the private sector for out patient services in both rural and urban areas. Here the out patient services are provided by a variety of providers, both trained and untrained. The picture on utilisation is more mixed when it comes to hospitalisation across states. The major trend during the mid 1980s showed a high reliance on public hospitals for major illnesses at the All India level but there were significant inter state variations. In states like Andhra Pradesh, Maharashtra, Gujarat, Kerala, Tamilnadu that have high private sector growth, there was greater reliance on the private sector for hospitalisation. The utilisation of the private sector corresponds to income levels viz. the higher and middle income groups use it more than the poorer sections.[4] During the mid nineties what is significant is the rise in costs of medical care in both the public and private sectors and also a greater reliance on the private sectors.[5]

Private interest is not restricted to provisioning alone but has penetrated financing, technology and drugs, medical and paramedical education as well. In financing nearly 80 per cent of health expenditure is from out of pocket sources. This essentially means that households are incurring expenditure in both public and private sectors on consultation, drugs, diagnostics and also indirect costs like transportation, wage loss etc. During the late nineties the government has allowed foreign joint ventures in the private health insurance sector. Multinational and national private companies dominate both the pharmaceutical and equipment industries. There has been an increase in the trends of import of medical equipment in the country through the 1990s. Between 1993-94 and 1996-97 the value of imports increased nearly four fold and this trend has been steadily increasing over the subsequent years.[6] A study from Chennai showed that it is the hospitals with high bed capacity and those in the corporate sectors that invest more intensively on intensive care and therapy equipment. In these categories the investment in imaging equipment is higher than laboratory equipment. Investment in imaging equipment accounts for 50 per cent of the total investment. Privatisation of medical education emerged as a phenomenon during the late 1980s and was confined to states like Maharashtra, Karnataka and later

[4] Baru, (1998) Private Health Care in India: Social Characteristics and Trends, New Delhi, Sage.
[5] Iyer,A. and Sen,G. (2000)Health Sector Changes and Health Equity in the 1990s in India' in Health and Equity-Effecting Change, Technical Report Series 18. Edited by Shobha Raghuraman, Bangalore, HIVOS publications.
[6] Baru, (1998) op.cit.

to states like Tamilnadu and Andhra Pradesh. The trend towards privatisation has increased in the last few years and there has been a great deal of debate on the quality of teaching and also the capitation fees charged by these colleges. A number of private centres have mushroomed for training nurses, midwives and also technicians across states but there is no reliable data on the numbers or the quality of training they are imparting. The corporate hospitals have started nursing and other schools for training various categories of paramedical personnel.

Characteristics of the Private Sector in Provisioning

In defining the characteristics of the private sector we are interested in the variations in size, services provided and location of these enterprises. In order to get some insight into this an analysis of various studies on the private sector at the secondary level has been carried out. A number of studies on the characteristics of the private sector have been published during the 1990s. These studies are urban based and have been carried out in the larger cities like Delhi, Mumbai, Kolkata, Chennai and Hyderabad. They have collected information based on a sample survey on the following aspects: These include information on the ownership, size, bed strength, services offered; availability of high technology equipment and also extent of government doctors serving as consultants. All the studies show that there are some common trends in terms of characteristics. These various studies on the characteristics of the private sector at the secondary and tertiary levels of care show a high degree of variability in terms of bed strength that ranges from 5 up to even a 100. It is mainly dominated by sole proprietorship and partnership enterprises that are promoted by doctors. Apart from variation in size and services rendered, this research provides some insights into the infrastructure that is available, personnel employed, technology use and also the extent of use of government doctors as consultants to these hospitals.

In the following section we analyse the characteristics of the private sector at the secondary and tertiary levels of care based on studies available from different parts of the country. Majority of these studies have been conducted during the late 1980s and 1990s.

Characteristics of the Private Sector in Medical Care: An Analysis of Available Studies

The distribution of private nursing homes and hospitals presents a picture of variation. The private sector is skewed in favour of urban areas, economically better-developed states and within states in districts that are economically more prosperous.[7] This study demonstrated this association across the developed and poorer districts of Andhra Pradesh. Analyses of the ratio of private to public beds across states shows a similar trend. Some states like Andhra Pradesh, Kerala, Maharastra, Punjab, Gujarat have a higher private bed strength compared to public beds.[8] These are also the states that would fall into the 'middle' and 'better off' category. These studies give us some broad trends but do not give us insights into the characteristics of private providers, services offered, technology used and manpower employed. For the purpose of gaining a better insight, an attempt has been made to analyse available studies on private provisioning. Most of these studies are based on small samples and confined to the larger cities in the country. (See Table 1)

Based on an in-depth study of 24 nursing homes in Bombay, 50 per cent were found to be housed in a poorly maintained building in a dilapidated condition. Most of the nursing

[7] Baru, R. (1987) Regional Variations in Health Services: A study of Selected districts of Andhra Pradesh, Unpublished Mphil dissertation, Jawaharlal Nehru University, New Delhi

[8] Baru, (1998) op.cit.

homes were congested and the majority of them had no scrubbing room. Less than a third had qualified nurses employed in them. None of the nursing homes had waste disposal facilities and disposed of all their waste in municipal bins. In addition they did not maintain any records of notifiable diseases treated in their institutions.[9] A study of private hospitals from two *talukas* in rural Maharashtra also showed up the poor quality in physical standards. In this study 49 hospitals were surveyed and it was found that none of them had registered with any authority. Most of them had a bed strength of 6 to 15. Allopathic doctors ran a majority of the nursing homes but doctors qualified in other systems of medicine managed around 29 per cent of these. 39 per cent of these nursing homes functioned without a full time doctor or visiting consultant and most of them employed mostly unqualified persons as paramedial staff. Some of them did not employ any paramedical staff at all. The services that were offered by these nursing homes were meagre. Only 2 per cent had emergency services, 18 per cent had facilities for pathological tests and none of them had blood bank facilities.[10]

In a study of 68 nursing homes drawn from different areas of Delhi, Nanda and Baru found that there was much heterogeneity in terms of size and scale of operations. These nursing homes offered both out patient and in patient services that included special focus on maternity and surgical services. As far as social background of promoters is concerned, the majority of promoters of small nursing homes belonged to business and professional backgrounds while those owning larger nursing homes belonged largely to business families. Promoters of the nursing homes had difficulty in getting trained nurses and therefore many of them relied on poorly trained or untrained persons. All these nursing homes had consultants attached to them for various specialisations.[11]

A study of 73 hospitals in Chennai providing both out patient and in-patient care at the secondary and tertiary levels of care, but excluding the corporate and trust hospitals showed similar trends as those observed in other cities. The study found that 68.5 per cent of the sample hospitals were under sole proprietorship, 20.5 per cent were partnerships and 11 per cent were private limited. The average bed strength was 22.6. Majority of these hospitals were run on their own premises and more than 80 per cent of them had less than 400 sq.ft available per bed. Often the space available for out patient services, consultation room etc. was very limited. 53 per cent had a pharmacy shop on the premises and according to the owners, having a pharmacy increases, ' access to care, overall revenues and also their competitiveness.'[12] As far as staffing is concerned most of the hospitals employ specialists and physicians on a part time basis but duty doctors on a regular basis. Many of these specialists are government doctors with 66.3 per cent of the nursing homes having government doctors as visiting consultants. However there was variation in the dependence of nursing homes on government doctors across ownership categories. 63.8 per cent of sole proprietorship nursing homes, 25.5 per cent in the partnership category and only 10.6 per cent in the private limited are dependent on government doctors.

---

[9] Nandraj:(1992) Private Nursing Homes/Hospitals: A Social Audit, Committee for Regulating Private Nursing Homes and Hospitals, Mumbai High Court.

[10] Nandraj and Duggal: (1997) Physical Standards in the Private Health Sector: A Case Study of Rural Maharashtra, Mumbai, CEHAT

[11] Nanda,P. & Baru,R.(1993) Private Nursing Homes and their Utilisation: A Case Study of Delhi, Voluntary Health Association Of India, New Delhi.

[12] Muraleedharan, VR. (1999) Characteristics and Structure of Private Hospital Sector in Urban India: A Study of Madras City, Applied Research Paper 5, Bethesda, Maryland: Partnership for Health Reform Project, ABT Associates

87 per cent of the nursing homes offer gynaecology and obstetric services, this is followed by general medicine, surgery and paediatrics. A comparative study between Chennai and Chidambaram shows a great deal of variation in the cost of services. For example, the charges for caesarean section in Chennai is double that in Chidambaram. In terms of infrastructure and space availability, it is much poorer in Chidambaram as compared to Chennai.[13]

Most of the medium and small hospitals do not have adequate capital to invest in diagnostic facilities therefore there is a tie up with diagnostic centres for referrals. 89 per cent of the hospitals have a contract with diagnostic centres or tertiary hospitals for CAT scan and MRI. There are commissions paid to the doctors for every referral that is made to the diagnostic centre. There is a great degree of variation in the charges and a great deal of arbitrariness in the fixing of fee schedules. As a result the patient does not know how much they will be charged for various procedures.

Studies of private doctors in Ahmedabad conducted among 500 doctors showed that 92 per cent were sole proprietors and depended solely on their personal capital for setting up the nursing home. This study revealed that majority of the private providers experienced a shortage of trained paramedical staff and hence hired mostly untrained persons for this job. When asked about the major forms of malpractice prevalent in the private sector they ranked several issues that include over prescription of drugs, splitting practices among doctors, inadequate measures for waste disposal and over prescription of diagnostics. Majority of the doctors were aware of the provisions of the Consumer Protection Act.[14]

A district level study of private providers in Madhya Pradesh showed that primary level practitioners who were both formally and informally trained were predominant. There was a plurality of practitioners who were distributed in both rural and urban areas. This study showed that the qualified practitioners, rural private practitioners and owners of nursing homes and hospitals were dominated by the forward caste and trading community combine. The proportion of backward classes, schedule castes and tribes was low and ranged from about 5to 20 per cent of all the practitioners. This study also showed that there is much variability across the different categories of nursing homes in terms of infrastructure, manpower and costs. Keeping in view the different levels of care, this investigation also underlined the need for regulating the private sector.[15]

A recent study of private nursing homes in Kolkata showed that the maximum growth in these institutions occurred between 1968-87. There was considerable variation in terms of size and scale of operations. 40 per cent of the nursing homes were managed on a sole proprietorship basis and 24 per cent were partnerships. The distribution of beds across categories also varied with 31 per cent of beds in private limited category, 23 per cent in public limited, 20 per cent in the sole proprietorship, 18 per cent in the partnership and 8 per cent in the Trust categories. The bed strength varied from 4 to a maximum of 186 across these various categories. All these nursing homes provide both out patient and in patient facilities. A small percentage of them have diagnostic facilities and

[13] Muraleedharan, VR.(1997) Hospital Services in Urban Tamilnadu: A Survey of Maternity Services in Madras City and Chidambharam (Cuddalore Region), Report prepared for Citizen, Consumer and Civic Action Group, Chennai.

[14] Bhat: (1999) 'Characteristics of Private Medical Practice in India: A Provider Perspective' in *Health Policy and Planning*, vol.14, no.1: pp.26-37.

[15] TARU (2002) 'Study on the Dynamics and Structure of Private Health Care in Madhya Pradesh' Report Submitted to Government of Madhya Pradesh and DFDI, UK

pharmacies attached to them. The most commonly provided service was gynaecology/ obstetrics followed by general surgery and general medicine. The availability of medical technology was largely restricted to ECG, X-rays, microbiology, biochemistry and haematology. Since doctors largely promoted these enterprises, they also worked in these hospitals. Nearly half of these enterprises had residential nurses, however, the majority of them were trained only on the job.[16]

It is well known that the beds in the private sector have increased several fold during the last four decades. At the all India level it has roughly doubled between the early 1980s and late 1990s. Some states have seen a faster growth than others and the data from some of the in-depth studies from Hyderabad, Jaipur and Kolkata show that majority of the institutions at the secondary and tertiary levels have a variable bed strength. They offer mainly gynaecology and obstetrics services along with other specialities; these are dependent on the size of the enterprise and the availability of consultants. These studies show that the dependence on government doctors as consultants is high among the medium sized hospitals. Most of these hospitals have basic equipment like X-ray machines, ECG and ultrasound. However, the smaller hospitals do not have the capital to invest in diagnostic facilities and therefore refer cases to larger hospitals or diagnostic centres. All these studies have shown that commissions are received for referrals made to diagnostic centres. Most of the smaller hospitals are unable to employ duty doctors or even trained paramedical personnel, however the medium and larger hospitals are able to employ consultants and also doctors on a part time or full time basis.

The other important issue has been the rise in the cost of medical care and the variability in costing of services across the public and private sectors as well as within the private sector. A study of costs of some specific interventions in private hospitals in Hyderabad and Chennai clearly showed this variability. The study found for normal deliveries, caesarean sections and hysterectomies there was variation in median costs across different categories of private hospitals. For hysterectomy in Chennai the median cost varied from Rs 22,886 for an average of 6 days in corporate hospitals, in the trust category it ranged from Rs 7,200 to Rs 13,063 with an average of 9 to 16 days of hospitalisation. In the single owner category the median costs was Rs 13,030 with an average of 11 days of hospitalisation.

This kind of a trend was similar in the case of other interventions like those concerning diabetes, cardio- vascular diseases etc.[17]

An additional issue that is of importance is the extent of irrational practices by doctors in the private sector when it comes to treatment of a number of communicable diseases that form a part of the National Disease Control programmes. Several studies have shown that private practitioners adopt irrational, ineffective and sometimes harmful practices while treating tuberculosis, malaria, cholera and other diseases.[18] These practitioners do not give information regarding

[16] Roy, B. (2002) 'Evolution, Social Dynamics and Patterns of Private Medical Care in Calcutta: An Exploratory Study' Unpublished M.Phil dissertation, JNU, New Delhi,2002

[17] Baru,R. et al (1999) Efficacy of Private Hospitals and the Central Government Health Scheme: Study of Hyderabad and Chennai, Project Report submitted to the Ministry of Health and Family Welfare, Administrative Staff College of India, Hyderabad.

[18] Priya, R. et al (1989) Sunder Nagari Mein Ulti-Dust Ja Prakop Va Uski Roktham (The Gastro-enteritis outbreak and Its Control in Sundar Nagri: An Assessment at Community Level), *Mimeo*, Sable Sangh with support from ICSSR, New Delhi; Phadke,A. (1998) Drug Supply and Use: Towards a Rational Policy in India, Delhi, Sage; Uplekar,M., Shepard, DS.(1991) Treatment of Tuberculosis by Private General Practitioners in India, Mumbai, FRCH; Kamat, V. (2001) Private Practitioners and their Role in Resurgence of Malaria in Mumbai and Navi Mumbai, India: Serving the Affected or Aiding an Epidemic? *Health Policy and Planning*, (53) pp885-909

the number of cases treated to the public surveillance system, even when most of these diseases are notifiable by law.

Issues for Regulating the Private Sector

The need for regulating the private sector arises from the heterogeneity of institutions in the private sector; the lack of standardised costs, variability in infrastructure, manpower etc. The variability in infrastructure, manpower, services and costs is bound to affect the quality of care in the private sector. Studies have shown that there is an irrational use of drugs and technology in the private sector and as a result the costs get pushed up. The lack of adherence to standardised regimes for the treatment of several communicable diseases actually impact on its effectiveness. This has adverse consequences for the programme in terms of control of the diseases.

Regulating the private sector should not only be restricted to provisioning of medical care but also other subsystems like medical and para-medical education, drugs, technology and financing. Therefore for any regulation to be effective, a systemic perspective is needed and in addition the issue of private practice by government doctors needs to be included.

Private practice by government doctors is a widespread phenomenon across states and is deeply entrenched in a plurality of forms. It includes individual private practice and acting as consultants in nursing homes which has been changing over the last few decades. During the 1950s and 1960s it was mainly confined to consultations in either their residence or clinic but with the growth of the private sector the nature of practice changed. Increasingly government doctors started acting as consultants in private nursing homes and in some cases had even started setting up their own nursing homes. This resulted in further blurring of their interests between the public and private sectors. This kind of a trend also has a negative impact on teaching, research and patient care in public hospitals. Several state governments have attempted the banning of private practice but this has met with a great deal of resistance by doctors. Several cases across states show that government doctors challenge such ban orders by the High Court and often manage to reverse the ban after it is imposed. The extent of entrenchment of private interests and their complex nature has meant a tremendous challenge for state governments.

Experiences of Regulation

There are many ways in which regulation can be affected. Very often it is a combination of regulatory practices that is seen to be effective. The state plays a very important role in defining the regulatory framework but it cannot be the sole actor. It is neither feasible nor desirable to have a sole actor for regulating the private sector. An important participant in regulating the private sector is the professional body itself. Experiences of developed countries clearly show that professional associations can play an important role in self-regulation and setting standards in the private sector. Given the power that professionals wield in society, any effort at regulation has to be done in consultation with professional organisations. It is well documented that medical professional organisations are normally aligned with conservative politics of any given state and therefore tend to oppose efforts to regulate the private sector. Regulation is seen as an act of infringement of the rights of individual doctors. Apart from professional organisations, consumer groups can also play a very important role in regulating the private sector.

The next section reviews the legal provisions that are available for regulating the private sector.

Regulations Available for the Private Sector

There are four different authorities for regulating the private sector. These include the Medical Council of India, the Local Bodies, Food and Drug Administration Authority and the Nursing Home Acts of different cities/ states enacted by the respective governments. While these various bodies have the power to regulate the private sector, they are doing very little in this respect. For example, the Medical Council of India and the State Medical Councils have to regulate medical education and professional practice, but have been largely ineffective.

Apart from these legal bodies the consumer courts have also been an important forum for the redressal of medical negligence. A recent study on consumer redressal mechanisms has explored the facilities available at the hospital level for filing complaints against medical negligence and also through the consumer forums. This study was conducted in three cities – Delhi, Lucknow and Hyderabad. The study showed that there was slackness on the part of hospitals offering redressal. In both public and private hospitals there were few who had a standardised procedure to handle complaints and did not have a written manual regarding the same. It was observed that the large and medium sized hospitals in both the public and private sectors had units to resolve consumer disputes but this was not the case for smaller hospitals. An analysis of the type of complaints commonly received in public and private sectors was revealing. In the public hospitals the most commonly received complaints related to sanitation, followed by hospital utilities and medial care. In the private sector complaints regarding sanitation was the highest, followed by hospital utilities and billing. This study also showed that the private sector seemed to be more adept at handling consumer complaints compared to the public hospitals.

Apart from the mechanisms for redressal at the hospitals, consumer courts have dealt with cases of medical negligence mainly from the private sector. This study showed that the medical cases filed with consumer courts formed a very small percentage to the total number of cases. The functioning of consumer forums were a major source of the problem and the experience of both providers and consumers have largely been negative. This is because there are an inadequate number of forums for the cases registered and the resolution of cases usually takes more than the stipulated period of 90 days. The people who access the consumer courts mainly belong to the middle classes with fixed incomes. This essentially means that the rural and urban poor, scheduled castes, tribes and women are largely unrepresented or under represented.[19]

If we review the various efforts of state governments to regulate the private sector we find it has met with tremendous resistance from professional bodies who view it as an infringement of their professional autonomy. In this scenario various possibilities are being discussed and one of them is a system for hospital accreditation.[20]

The accreditation system does not preclude other forms of regulation and can be complementary to efforts of the government. Accreditation will necessarily involve the professionals in any agreement regarding the initiation and implementation of such a process. As Nandraj et al observe, the body to put such a system of accreditation into place could be set up by the government or as a voluntary autonomous body.

[19] Misra and Kalra: (2001) 'A Study on the Regulatory Framework for Consumer Redress in the Health Care Sector in India' in A Vision For India's Health System: National Consultation Workshop, New Delhi, sponsored by Ministry of Health and Family Welfare and The World Bank.

[20] Nandraj et al (1999) Accreditation of Hospitals: Breaking Boundaries in Health Care, Mumbai, CEHAT

Conclusion

This paper has reviewed and analysed the growth and characteristics of the private sector in medical care. The private sector has grown and diversified over the last three decades and has emerged as an important practitioner in the provision of medical care in both rural and urban areas albeit the variations it presents across states. It has also shown that the private sector is a heterogeneous entity offering services of variable quality. It is also unregulated and this has become an area of immense policy concern in recent times. The paper also takes a systemic view for regulating the private sector since commercial interests are not restricted only to provisioning but also span the other subsystems like medical and paramedical education, drugs and technology, finance and research. In addition it also highlights the need to account for the nature of interrelationships between the public and private sectors especially in the form of private practice by government doctors and public subsidies to the private sector. While the issues for regulation are complex, the legislation and other efforts so far have been piecemeal and rather ineffective across states. Ultimately health is a state subject and any efforts at evolving a regulatory framework have to be initiated at the state level. However, this does not preclude the centre from initiating a dialogue between the major participants who would be involved and affected by regulation in order to provide a workable framework.

While the regulation of the private sector is absolutely essential in order to address the differential quality of services, it does not tackle the problem of inequities that are created by the private sector. These could be regional, social and economic inequities. It is here that the role of the state cannot be restricted to only regulating but it also needs to define the scope and role for the private sector. This would then require that the state is able to delineate the nature and extent of private sector participation in the delivery of health services. This would essentially mean that the role of the state becomes crucial in planning financing and delivery of health services. It is here that the philosophy of primary health care becomes extremely relevant because it did give primacy to the state to plan and provide health services on the principles of universality, equity and comprehensiveness. There is sufficient evidence from the last five decades that the growth of markets do undermine the very principles that were enunciated in the Alma Ata document. The evidence from developed and developing countries shows that markets in health care have increased inequities in access and utilisation, increased costs of services, promoted greater dependence on technology and accessibility to services being determined on the principle of payment. With euphoria over markets waning, the importance of the state is gradually being revived across the ideological spectrum in various hues. It is therefore important to recognise the relevance of Alma Ata at this juncture and revisit the importance of the state in public provisioning of inputs that contribute to health improvements and access to health services.

Fundamental Right to Health and Health Care

S. V. Joga Rao

Introduction

It is a fact that accessible and affordable health care is still a mirage to many of our people. The position has not undergone any significant improvement, even after completing more than 50 years of governance since independence.

The present day context paints a clear contrasting trend pertaining to economics of health care services. On the one hand, one discerns a consistent dwindling of State budgetary allocation on public health and on the other, a meteoric rise of private investment on a massive scale in health care delivery. This investment finds its way in different dimensions of health care —activity which include establishing nursing homes, hospitals, diagnostic centres and rehabilitation homes, pharmaceutical and bio-tech sectors, medical equipment firms, medical and health insurance and also institutions imparting medical and allied education.

This trend quite clearly indicates two patterns of development. The health care industry has scaled up its offer of superior quality of medical services with emphasis on specialities and super specialities. Technology driven health care services offered by some of the corporate centres are undoubtedly comparable to international standards. However, the available health care services particularly those in the private sector are only accessible to those who can afford the cost. If not, denial of service is the consequence. Nevertheless, those who cannot afford it are driven to the private health care sector owing to the fact that the government hospitals are no longer in a position to cater adequately to the health care needs of the people. In other words, the role of the State in the context of health care is fast shrinking, at the same time, market players are experiencing phenomenal expansion.

This social context has strained the conventionally understood foundations of doctor – patient relationship. This gradually resulted in growing awareness and concern in society on the need to protect patient's rights. Professional accountability from the medical professionals and establishments has acquired a new dimension in the process. The result is a rising number of cases being filed against doctors, nursing homes and hospitals seeking diverse legal remedies, in different courts and forums.

In addition, society has also witnessed active judicial intervention in recognising and constitutionalising the right to health as a fundamental right. The judiciary has shouldered the responsibility in two different ways in the context of health care, namely, recognising and enforcing right to health care as a fundamental right and regulating health care delivery. The recent pronouncements and directives by the Supreme Court pertaining to mentally ill and pre-natal diagnostic techniques regulation clearly indicates this trend.

Still whatever has been attempted has not in any fundamental sense, addressed the issue of accessible and affordable health care services. What needs to be done? What is the way forward? An attempt is made to understand and respond to these issues of an intriguing nature. This paper outlines evolution of Constitutionalisation of the right to health in the light of international and national perspectives, evaluates strengths of judicial interpretation and recommends certain measures while designing the way forward.

Right to Health: The International Perspective

Right to health and availability of qualitative health services are issues that are relevant all over the world. Hence, these issues also form topics of debate at various international levels. The United Nations, in particular, has been active in adopting various resolutions to safeguard the interests of individuals in ensuring their health and well being.

> The Universal Declaration of Human Rights states that:
> "Everyone has the right to a standard of living adequate for the health and well-being of himself and his family, including food, clothing, housing, and medical care, and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control."[1]
>
> International Covenant on Economic, Social and Cultural Rights proclaims that:
> "The State parties to the present Convention recognise the right of everyone to the enjoyment of the highest attainable standard of physical and mental health."[2]

The International Covenant on Civil and Political Rights 1966, the UN Declaration on Elimination of All Forms of Discrimination Against Women 1967, the Convention on the Elimination of All Forms of Discrimination Against Women 1979 and the Convention on the Rights of the Child have all been framed to protect apart from others the health care rights of women, children and other discriminated sections of the society.

World Health Organization

For more than fifty years, the World Health Organization has been playing a laudable role at the international level with a view to ensure the availability of the highest standards of health care to people all over the world. The Preamble of the World Health Organization Constitution states that:

1. The enjoyment of the highest standards of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, and economic and social condition.
2. The health of all peoples is fundamental to the attainment of peace and security and is dependent upon the fullest co-operation of individuals and states.
3. The achievement of any state in the promotion and protection of health is of value to all.
4. Unequal development in different countries in the promotion of health and control of disease, especially communicable disease, is a common danger.
5. Healthy development of the child is of basic importance; the ability to live harmoniously in a totally changing environment is essential to such development.
6. The extension to all people of the benefits of medical, psychological and related knowledge is essential to the fullest attainment of health.
7. Informed opinion and active co-operation on the part of the public are of the utmost importance in the improvement of the health of the people.
8. Governments have a responsibility for the health of their people, which can be fulfilled only by the provision of adequate health and social measures.

Article 2 of the same Constitution deals with functions that, directly and indirectly, require the application of legal principles, such as:

1. to act as the directing and co-ordinating authority on international health work;

[1] Article 25 of the Universal Declaration of Human Rights (1948)
[2] Article 12 of the International Covenant on Economic, Social and Cultural Rights (1966)

2. to propose "Conventions, Agreements and Regulations", make recommendations with respect to international health matters, and to perform such duties as may be assigned thereby to the Organization and are consistent with its objective; and
3. to develop, establish and promote international standards with respect to food, biological, pharmaceutical and consumer products.

Several international agencies have also lent support to public participation in health care. The World Health Organization Alma Ata Declaration 1978, states that:

> "The people have the right and duty to participate individually and collectively in the planning and implementation of their health care."

Impact of International Instruments in a National Context

The issue is how far these international obligations, agreements, treaties and covenants bind the Indian State and Nationals? To what extent, can these instruments can be invoked and relied upon in Indian Courts?

Chief Justice Sikri in Keshavananda Bharati's[3] case, observed that, in view of Art. 51, the Supreme Court must interpret the language of the Constitution, if not intractable, in the light of the United Nations Charter and the solemn declaration subscribed to by India.

According to the Supreme Court, the executive is qua the State, competent to represent the State in all matters international and may by an agreement, convention or treaties incur obligation, which in international law are binding on the State. But the obligations arising under the agreement or treaty are not by their own binding upon Indian nationals. The making of law is necessary when the treaty or agreement operates to restrict the rights of citizens or other or modifies the laws of the State. If the rights of citizens or others, which are justiciable, are not affected, no legislative measure is needed to give effect to the agreement or treaty.[4]

Health and Health Care: National Perspective

Health and health care have been covered both under the Constitution of India and in different legislation. The Constitution does not explicitly recognise right to health as a fundamental right. Similarly, different legislative enactments passed with regard to health and health care deal more with the regulatory aspects rather than the right to health. It can be interpreted that these statutes recognise right to health in a given context in an indirect sense.

Constitutional Provisions Preamble

Preamble to the Constitution of India categorically directs the State to initiate measures aiming at improving the health of the people. This is to be inferred from the broader parameters of social and economic justice.

Fundamental Rights

Part III of the Constitution deals with various fundamental rights. A perusal of the same reveals the following fundamental rights, which are related to the health and health care of the people.

Equality before law: According to this fundamental right, the State shall not deny to any person equality before the law or equal protection of the laws within the territory of India.[5]

Protection of Life and Personal Liberty: According to this fundamental right, no person

[3] AIR 1973 SC 1461
[4] See PUCL v. Union of India AIR 1997 SC 1203; PUCL v. Union of India AIR 1997 SC 568; Visakha v. State of Rajasthan (1997) 6 SCC 241
[5] Art. 14

shall be deprived of his life or personal liberty except according to the procedure established by law.[6]

Directive Principles of State Policy

Essential premise of these principles is to provide direction to various State Governments to undertake and initiate required measures in the interests of the community. With regard to health and health care, the following principles have direct bearing on which the States must strive to secure:

(c) that the health and strength of workers, men and women, and the tender age of children are not abused and that citizens are not forced by economic necessity to enter vocations unsuited to their age or strength;
(d) that children are given opportunities and facilities to develop in a healthy manner and in conditions of freedom and dignity and that childhood and youth are protected against exploitation and against more and material abandonment.[7]

Right to work, to education and to public assistance in certain cases: The State shall, within the limits of its economic capacity and development, make effective provision for securing the right to work, to education and to public assistance in cases of unemployment, old age, sickness and disablement, and in other cases of undeserved want.[8]

Provision for just and humane conditions of work and maternity relief: The State shall make provision for securing just and humane conditions of work and for maternity relief.[9]

Living Wages for workers: The State shall endeavour to secure, by suitable legislation or economic organisation or in any other way, to all workers, agricultural, industrial or otherwise, work, a living wage, conditions of work ensuring a decent standard of life and full enjoyment of leisure and social and cultural opportunities and, in particular, the State shall endeavour to promote cottage industries on an individual or co-operative basis in rural areas.[10]

Duty of the State to raise the level of nutrition and the standard of living and to improve public health: The State shall regard the raising of the level of nutrition and standard of living of its people and the improvement of public health as among its primary duties, and in particular, the State shall endeavour to bring about prohibition of the consumption except for medical purposes of intoxicating drinks and of drugs which are injurious to health.[11]

Organisation of agriculture and animal husbandry: The State shall endeavour to organise agriculture and animal husbandry on modern and scientific lines and shall, in particular take steps for preserving and improving the breeds, and prohibiting the slaughter, of cows and calves and other milch and draught cattle.[12]

Protection and improvement of environment and safeguarding of forests and wild life: The State shall endeavour to protect and improve the environment and to safeguard the forests and wild life of the country.[13]

---

[6] Art. 21
[7] Art. 39
[8] Art. 41
[9] Art. 42
[10] Art. 43
[11] Art. 47
[12] Art. 48
[13] Art. 48A

Fundamental Duties

Fundamental Duties incorporated under Art. 51A recognise some pertinent principles in this connection. They include,

It shall be the duty of every citizen of India:

(g) to protect and improve the natural environment including forests, lakes, rivers and wild life, and to have compassion for living creatures;
(h) to develop the scientific temper, humanism and the spirit of inquiry and reform;
(j) to strive towards excellence in all spheres of individual and collective activity so that the nation constantly rises to higher levels of endeavour and achievement.[14]

Constitutional Remedies

Remedy to move the Supreme Court

Right to seek legal remedy before the Supreme Court is itself recognised as a fundamental right. By widening the scope and ambit of locus standi, the Supreme Court gave fillip to the birth of public interest litigation. As a consequence, it is not necessary that only a person whose rights are violated or the victim have to appear before or move the Supreme Court or High Court for the purpose of legal remedy. Any person or organisation is entitled to approach the Court and plead for redressal in a representative capacity.[15]

Remedy to move the High Court

Similarly Article 226 recognises the right to move the High Court for the purpose of enforcing fundamental rights.[16] Through these remedies, the aggrieved person is entitled to redress his or her grievances.

Legislative Competence

The State legislature is, under entry 6 of the State List contained in the Seventh Schedule to the Constitution of India, empowered to make laws with respect to public health and sanitation, hospitals and dispensaries. Both the Centre and the States have power to legislate in the matters of social security and social insurance, medical professions, and, prevention of the extension from one State to another of infectious or contagious diseases or pests affecting man, animals or plants, by entries 23, 26 and 29 respectively contained in the concurrent list of the Seventh Schedule.[17]

Legal Insight

There is a considerable amount of legislation (both by the Central and State Governments respectively), which deal directly with the subject matter of health and health care. As has been stated earlier, these legislations deal more with the regulatory aspects of health care delivery in a given context.

Some of those legislations include**,** Medical Termination of Pregnancy Act, 1971, Medical Termination of Pregnancy Rules, 1975, Medical Termination of Pregnancy Regulations, 1975, Mental Health Act, 1987, Central Mental Health Authority Rules, 1990, State Mental Health Authority Rules, 1990, National Trust for Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disabilities Act, 1999, The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995, The Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Rules, 1996, The Pre-Conception and Pre-Natal Diagnostic Techniques (Prohibition of Sex Selection) Act, 1994, The Pre-Conception and Pre-Natal Diagnostic Techniques (Prohibition Of Sex Selection) Rules, 1996, Transplantation of Human Organs Act, 1994, The

[14] Art. 51A
[15] Article 32
[16] Article 226
[17] Justice R.K. on Doctor Abhichandani, "Human Rights: Role of Courts in realisation of The Rights", *Lawshop Patient and the Law*, TILEM, National Law School, Bangalore.

Transplantation of Human Organs Rules, 1995, Bio-Medical Waste (Management and Handling) Rules, 1998 and Drugs and Magic Remedies (Objectionable Advertisements) Act, 1954 etc.

Right To Health: Judicial Perspective

Though right to health has not been expressly incorporated in the Constitution as a fundamental right, because of innovative judicial interpretation, right to health has acquired that status. Scope for such an interpretation has been created by the dictum of Supreme Court in Menaka Gandhi v. Union of India[18] wherein, while interpreting Article 21 the Supreme Court has unequivocally held that reasonableness, justness and fairness must form part of the procedure established by law. The State is now mandated to provide to a person all rights essential for the enjoyment of the right to life in its various perspectives. Consequently, the right to health and access to medical treatment has been brought within the fold of Article 21.

Constitutional Remedies

The Supreme Court has been instrumental, through many meritorious judgements, in ensuring the protection of an individual's right to health and right of access to medical treatment under various conditions. Examined below are some decided cases and some rulings that lay down various criteria to regulate and standardise health services.

Right to a Healthy Life

In the context of State of Punjab v Ram Lubhaya Bagga[19], the Supreme Court observed that the right of a citizen, under Article 21, to live enforces an obligation on the State. This obligation is further reinforced under Article 47. It is the primary duty of the State to secure health to its citizens. Government hospitals and health centres should be easily reachable to all sections of the people and they should be of good quality. The State should allocate sufficient funds for this purpose. The State can never disown its responsibility to provide medical facilities, as that would be a violation of Article 21. Though an employee may be given a choice to get treated in any private hospital in the country, the amount of reimbursement may be limited and a committee of experts would decide the limit.

However, the Court further held that provision of medical facilities to citizens could not be unlimited. It has to be based on financial resources. The principle of fixing a rate and scale is justified, and cannot be held to violate Articles 21 or 47 of the Constitution.

Right to Life Includes Right to Health

While dealing with Paschim Banga Khet Mazdoor Samiti and others v State of West Bengal and another[20], the Supreme Court had an opportunity to enquire into the lethargic attitude of the Government in providing warranted medical facilities. The Court held that providing adequate medical facilities is an obligation undertaken by the Government in a welfare State. The Government discharges this obligation by running hospitals and health centres that provide medical care to the persons seeking to avail of these facilities. Article 21 imposes an obligation on the State to safeguard the right to life of every person. Preservation of human life is thus of paramount importance. The Government hospitals run by the State are duty bound to extend medical assistance for preserving human life. Failure on the part of a Government hospital to provide timely medical treatment to a person in need of such treatment results in violation of his right to life guaranteed under Article 21. A compensation of Rs. 25,000 was awarded in this case.

In Akhila Bharatiya Soshit Karamchari Sangh

[18] AIR (1978) SC 597
[19] AIR 1998 SC 1703
[20] AIR 1996 SC 2426

v Union of India,[21] the Supreme Court pointed out that fundamental rights are of no value unless they are enforced by resort to Courts. The directive principles cannot, in the very nature of things, be enforced in a court of law, but that does not mean that they are less important than fundamental rights or that they are not binding on various organs of the State.

Right to Treatment in an Emergency Situation

The Supreme Court, in Paramanand Katara v Union of India and others[22], ordered medical institutions to provide treatment immediately, irrespective of whether or not procedural formalities have been complied with. The Court observed that the preservation of human life is of paramount importance. Whether the patient is an innocent person or a criminal liable to punishment under the laws of the society, it is the obligation of those who are in charge of the health of the community to preserve life so that the innocent may be protected and the guilty may be punished. Article 21 casts the obligation on the State to preserve life. The doctor at the Government hospital positioned to meet the state obligation is, therefore, duty bound to extend medical assistance for preserving life. Every doctor, whether at a Government hospital or otherwise, has a professional obligation to extend his services with due expertise for protecting life. The Court laid down the following guidelines for doctors, when an injured person approaches them:

1. Duty of a doctor when an injured person approaches him:

   Whenever a doctor who is approached by an injured person finds that some better assistance is necessary to save the life of the person, he should render all the help he can and see that the person reaches the proper expert as early as possible.
2. Legal protection to doctors treating injured persons:

A doctor does not violate the law of the land by proceeding to treat an injured victim on his appearance before him, either by himself or with others.

3. No legal bar on doctors from attending to the injured persons:
   There is no obstacle laid down by law for a medical professional, when he is called upon to attend to an injured person needing his medical assistance immediately.

Workers' Right to Clean Environment and Health Care Facilities

While judging Bandhua Mukti Morcha v Union of India,[23] the Supreme Court held that it is the fundamental right of everyone in the country, assured under the interpretation given to Article 21 in Francis Mullin's case,[24] to live with human dignity, free from exploitation. This right must include the protection of the health and strength of the workers, men and women, and children of tender age against abuse; opportunities and facilities for children to develop in a healthy manner and in conditions of freedom and dignity; educational facilities; just and humane conditions of work and maternity relief. No State, neither the Central Government nor any State government has the right to take any action that will deprive a person of the enjoyment of these basic necessities.

In CESE Ltd v Subash Chandra Bose,[25] the Court held that the health and strength of a worker is an integral facet of the right to life. The aim of fundamental rights is to create an egalitarian society to free all citizens from

[21] {1981} 1 SCC 246
[22] AIR 1989 SC 2039
[23] AIR 1984 SC 802
[24] AIR 1980 SC 849
[25] {1992} 1 SCC 461

coercion or restrictions by society and to make liberty available for all. The Court further held that the term health implies more than an absence of sickness. Facilities of health and medical care generate devotion and dedication, to give the workers' the best, physically as well as mentally, in productivity.

While dealing with Vincent v Union of India[26], the Supreme Court held that a healthy body is the very foundation for all human activities. That is why the adage 'Sariramadyam khalu dharma sadhanam'. It is an obligation of the State to ensure the creation and the sustaining of conditions congenial to good health.

In Consumer Education and research Centre v Union of India[27], the Court ruled that the right to health and medical care, to protect health and vigour, while in service or after retirement, is the fundamental right of a worker. The State, be it the Union or the State Government or an industry, public or private, is enjoined to take all such action that will promote health, strength and vigour of the workman during the period of employment and leisure, and health even after retirement, as basic essentials to live life with health and happiness. Denial thereof denudes the workman the finer facets of life violating Article 21.

While highlighting the importance of Directive Principles, the Supreme Court repeated its stand in Kirloskar Brothers Limited v Employees State Insurance Corporation.[28] It observed that in expanding economic activity in a liberalised economy Part IV of the Constitution enjoins not only the State and its instruments, but even private industries to ensure safety to the workman and to provide facilities for the health and vigour of the workman, as assured in relevant provisions in Part IV, which are integral parts of the right to equality under Article 14 and the right to life under Article 21.

Right to Healthcare for Convicts and Under Trials

The Supreme Court, while recognizing the custodial rights of individuals in Supreme Court Legal Aid Committee through Honorary Secretary v State of Bihar and Others[29] ruled that it is the obligation of the police to ensure appropriate protection of the person taken into custody, including medical care if such a person needs it. The State of Bihar was directed to pay a compensation of Rs.20,000 to the legal representative of the deceased.

Liability on the Part of Philanthropic Institutions

In A.S. Mittal and Others v State of Uttar Pradesh and others,[30] the Supreme Court ruled that a mistake by a medical practitioner, which no reasonably competent and careful practitioner would have committed, is a negligent one. The Court further held that maintenance of the highest standards of aseptic and sterile conditions at places where ophthalmic surgery, or any surgery, is conducted cannot be over emphasized. It is not merely on the formulation of theoretical standards but on the professional commitment, with which the prescriptions are implemented that the ultimate result rests. However, the standards of cleanliness and hygiene in public hospitals leave a lot to be desired. Owing to a general air of cynical irreverence and compliance with the continuing deteriorating standards the very concept of standards and the imperatives of their observance tend to be impaired. The remedy lies in a strict adherence to the virtue of method, and the laying down of practical procedures in minute details and by exacting, not merely expecting, strict adherence to these procedures. The Court held that the State

[26] AIR 1987 SC 990
[27] AIR 1995 SC 922
[28] {1996} 2 SCC 682
[29] {1991} 3 SCC 482
[30] AIR 1989 SC 1571

Government should afford the victims some monetary relief in addition to the sum of Rs.5,000 already paid by way of interim relief. The State Government was directed to pay a further sum of Rs. 12,500 to each of the victims.

Right to Privacy (as a component of healthcare)

The Supreme Court of India, in Mr. A v Hospital Z,[31] observed that the right to privacy has been culled out of the provisions of Article 21 and other provisions of the Constitution relating to Fundamental Rights read with Directive Principles of State Policy. In several judgements, the Supreme Court has made attempts to trace the origin of the 'right to privacy' and it was ultimately laid down as under:

Depending on the character and the antecedents of the persons subjected to surveillance, as also the objects and the limitation under which surveillance is made, it cannot be said that surveillance by domiciliary visits would always be unreasonable restrictions upon the right of privacy. Assuming that the fundamental rights explicitly guaranteed to the citizen has penumbral zones and that the right to privacy is itself a fundamental right, that fundamental right must be subject to restrictions on the basis of compelling public interest.

The right to privacy may arise out of a particular relationship, which may be commercial, matrimonial or even political. The doctor-patient relationship, though basically commercial, is professionally a matter of confidence and therefore, doctors are morally and ethically bound to maintain confidentiality. In such a situation, public disclosure of even true private facts may amount to an invasion of the right of privacy, which may sometimes lead to the clash of one person's right to be alone with another person's right to be informed.

The Court held that the right to privacy is an essential component of the right to life as provided by Article 21. This right however, is not absolute and may be lawfully restricted for the prevention of crime, disorder, or protection of health or morals or protection of right and freedom of others. The Court further held that having regard to the fact that the appellant was found to be HIV positive, its disclosure would not be in violation of either the rule of confidentiality or the appellant's right to privacy, as Ms. W, whom the appellant was likely to be marry, was saved in time by such disclosure. She would have been infected with the dreadful disease had the marriage taken place and been consummated.

Subsequently, in response to an interim application filed for clarification, the Supreme Court[32] held that, the appellants' right was not affected in any manner in revealing his HIV status to the relatives of his fiancée.

Right to Health of the Mentally Ill

While dealing with complaints related to the functioning of Ranchi Mansik Arogyashala,[33] the Supreme Court held that the running of a mental hospital was part of the State's obligation to its citizens. The State Government has to realise this obligation by running the hospital in a perfect standard and by serving the patients in an appropriate manner. It was directed that the quality of hospitals should improve and patients should have the benefit of modern scientific treatment keeping in mind the fact that the methods adopted for the treatment of the mentally ill have undergone many rapid changes. Adjudging that a hospital is not a place for cured people to stay, it was found necessary that a rehabilitation centre should be established for those persons who, after getting cured, are not in a position to return to their families or seek employment.

[31] {1998} 8 SCC 296
[32] 2002 SOL Case No. 657
[33] AIR (1989) SC 348

Similar concerns have been expressed by the Supreme Court in connection with recent incidents happened at Erawadi.

Protection Against Injurious Drugs

New and emerging diseases, combined with the rapid spread of pathogens resistant to insecticides, are major challenges to human health. To meet these challenges, new drugs have to be found. However, the Central Government, by Section 26 A of the Drugs and Cosmetics Act, 1940, is empowered to prohibit, in public interest, the manufacture, sale or distribution of any drug that is likely to involve any risk to human beings or animals or if it does not have the claimed therapeutic value.

In Vincent v Union of India,[34] the petitioner challenged the drug policy of the Government. Directions were sought from the Supreme Court for banning import, manufacture, sale and distribution of drugs, which were recommended for banning by the Drugs Consultative Committee, and for cancellation of the licences authorising such drugs. The respondents contended that the matter of public health is incorporated only in the Directive Principles and so they are not enforceable before a Court of law. The Supreme Court observed that the Central Government should adopt an approved national policy and prescribe an adequate number of formulations that would meet the requirements of the people. Injurious drugs must be totally eliminated from the market. Drugs that are found to be necessary must be manufactured in abundance and must be made available to the needy. The prices of the drugs should be regulated. For every illness that can be cured by treatment, the patient must be in a position to get medicine. This is an obligation on the State in view of the Directive Principles of State Policy that constitute Part IV of the Constitution. The Court asserted the significance of public health as follows:

"In a series of pronouncements during recent years this Court has culled out from the provisions of Part IV of the Constitution these several obligations of the State and called upon it to effectuate them in order that the resultant pictured by the Constitution Fathers may become a reality. As pointed out by us, maintenance and improvement of public health have to rank high, as these are indispensable to the very physical existence of the community and on the betterment of these depends the building of the society of which the Constitution makers envisaged. Attending to public health in our opinion, therefore, is of high priority-perhaps the one at the top."(p. 995)

On Quality of Blood for Transfusion

Transfusion of blood can at many times saves the life of a patient, but it can also take away that life, if the transfused blood is contaminated. In Part XII- B of the Drugs and Cosmetic Rules, 1945 provisions are made to regulate blood collection and storage by prescribing the equipment and supplies required for a blood bank.

In connection with a Public Interest Litigation[35] highlighting serious deficiencies in the matter of collection, storage and supply of blood through various blood centres, the Supreme Court constituted a committee to examine the schemes suggested by the petitioner and the Union of India. The Court held that the Government should take suitable action for the implementation of the plans suggested by the committee and gave the following directions:

i) The Union of India should establish National Council of Blood Transfusion, a registered society to be funded by Government of India, with empowerment to raise its own funds.

[34] AIR 1987 SC 990
[35] (1996) 1 SCC 753

ii) The State Governments should establish State Councils in consultations with the National Council.
iii) The activities of the National and State Councils should include launching of effective motivating campaigns for voluntary blood donations, launching programmes of blood donations in educational institutions, among the labour, industry and organisations of various services including civic bodies and training of personnel in relation to operations of blood collection, storage and utilisation.
iv) The National Council should conduct training programmes, establish institutions for research in collection, processing, storage, distribution and transfusion of human blood and its components.
v) The National Council should start special postgraduate courses in medical colleges in blood collection, storage, transfusion etc.
vi) The Government of India should make donations to the National and State Councils tax-free.
vii) The Government must ensure that the blood banks operating in the country are duly licensed every year.
viii) Professional donor system should be eliminated in two years.

Welfare of Children

In Sheela Barse (II) v Union of India,[36] the Supreme Court held that the Nations' children are very important assets. Children's programmes should find a prominent part in our national plans for the development of human resources, so that our children grow up to become physically fit, mentally alert and morally healthy citizens, endowed with skill and motivation needed by the society.

Responsibilities of Municipalities and Panchayats

Article 242-W of the Constitution provides that the legislature of a State may endow the municipalities with such powers and authority as may be necessary to enable them to function as institutions of self-government for the performance of functions and implementation of schemes including (as per the Twelfth Schedule) those related to public health, sanitation conservancy and solid waste management. Duties of the local authorities in such spheres include establishment and maintenance of dispensaries, expansion of health services, regulating or abating offensive or dangerous trades or practices, providing a supply of water, potable and sufficient for preventing danger to the health of the inhabitants from insufficiency or the lack of quality of the existing water supply, public vaccination, cleaning public places and removing harmful substances, disposal of night soil and rubbish, providing special medical aid and accommodation for the sick in times of dangerous diseases, taking measures to prevent the outbreak of communicable disease etc. Alliances between the local government authorities and the State Government are crucial in the matter of promoting public health.

On Medical Negligence

The patient has a right to be treated with a reasonable degree of care, skill and knowledge. A mistake committed by a medical practitioner, due to carelessness and lack of competency, will be termed as negligence. In Dr. L.B. Joshi v Dr. T.B. Godbole,[37] the Supreme Court held that a person who holds himself ready to give medical advice and treatment implies that he has enough skill and knowledge for the purpose. He owes a duty of care to the patient in deciding whether to undertake the case and what treatment to give. A breach of such duty gives a right of

[36] AIR (1986) SC 1773
[37] AIR (1969) SC 128

action to the patient for negligence caused by the doctor.

The Supreme Court has held that the fact that doctors are governed by the Indian Medical Council Act and are subject to the disciplinary control of the Medical Councils does not offer any comfort to a person who has suffered due to negligence and such a person has a right to seek redress. The service rendered to a patient by a medical practitioner (except where the doctor renders service free of charge to every patient or under a contract of personal service), by way of consultation, diagnosis and treatment, both medical and surgical, was held to fall within the fold of "service" as defined in Section 2(i) (O) of the Consumer Protection Act, 1986.

State's Duty to Establish PHCs

In this case, the petitioner an ex-sarpanch of a gram panchayat has approached the High Court seeking issuance of appropriate direction to the State of Orissa to establish and run a primary health centre.

On the basis of demands of the local people and public at large, the Government of Orissa decided to open certain primary health centres in selected areas. They accordingly issued a notification, wherein it was stated that the required and identified facilities must be provided by the concerned gram panchayat for the purpose of establishment and running of the said primary health centres.

Despite substantially complying with the said requirements, the authorities concerned have not shown any initiative in materialisation of the project.

In response to the writ filed, the High Court held that, "Life is a glorious gift from God. It is the perfection of nature, a masterpiece of creation. Human being, is the epitome of the infinite prowess of the divine designer. Great achievements and accomplishments in life are possible if one is permitted to lead an acceptably healthy life. Health is life's grace and efforts are to be made to sustain the same. In a country like ours, it may not be possible to sophisticated hospitals, but definitely villagers of this country within their limitations can aspire to have a primary health centre. The Government is required to assist people, and its endeavour should be to see that the people get treatment and lead a healthy life. Healthy society is a collective gain and no Government should make any effort to smother it. Primary concern should the primary health centre and technical fetters cannot be introduced as subterfuges to cause hindrances in the establishment of health centre".

Accordingly, appropriate directions have been issued by the High Court mandating the State Government to forthwith establish the primary health centre.

Right to Health: Contradictions and Critique

We have briefly dealt with relevant and applicable Constitutional provisions and legal enactments regarding health as the subject matter, as well as focussed on judicial interpretation of right to health in diverse contexts. A critical perusal of these parts clearly indicates the premise oriented contradictions, which may be explained in the following way.

In respect of health, Constituent Assembly Debates (CAD) reveal the nature of deliberation and its unambiguous stand reflecting health as a matter of governance rather than an individually claimable or enforceable right. In fact, the documented debate requires to be comprehended in the context of the then existing global and ideological preference to civil and political rather than to socio-economic rights. Perhaps this is the reason why health related goals and targets have become subject matters of directions under Directive Principles of State Policy in our Constitution rather than enforceable individual rights as envisaged

under the chapter of fundamental rights. Accordingly, health as an attainable goal was construed more as an outcome of collective endeavour of the State's Governance, but not as a consequence of an enforceable individual fundamental right.

To a pointed question as to why Directive Principles of State Policy were made unenforceable in or before a Court of law, Dr. Ambedkar, purportedly responded by saying that the concerned government will be unseated by the electorate, should there be any failure in implementing these directives. Paradoxically, this directive itself draws its strength from a very weak assumption that Indian society is a vigilant body when it participates in electoral processes in a democratic set up. This is a myth. The last fifty years of governance has proved it beyond reasonable doubt. Far from unseating governments from political power, the issue of public health has till date never acquired centre stage status in public discourse. Naturally, owing to this fact, implementation of these constitutional directives has become more a matter of political discretion rather than governments' mandate.

While sensing this, the judiciary in its own way explored remedial measures of extracting State's accountability by a two-fold approach. On one hand, started liberalising the narrow contours of locus standi resulting in public interest litigation and on the other, judicially enforcing select unenforceable directive principles on par with fundamental rights. The first approach enabled the judiciary to pave the way for pronouncing and recognising unenumerated fundamental rights. The second approach underscored the need for meaningful implementation of directives in the overall community interest. Apart from this, it also sent signals to the States on their role in governance oriented accountability.

This is why the directives on health have never found political favour in our context leading to absolute adhocism and tokenism resulting in the present day affairs. With the forces of liberalisation and market economy, the role and responsibility of the State with regard to health has started withering to a substantial extent. Where do we draw the line? Does that mean the State has no role whatsoever (except for regulatory purposes) in the health sector in a market economy? Such a significant issue requires detailed debate.

This is the backdrop in which, the Supreme Court of India in the year 1997 has pronounced that right to health is a fundamental right. After a gap of nearly 48 years, Supreme Court felt the need for Constitutionalising the right to health as a fundamental right. From then onwards, in bits and pieces, judicial intervention has come about with regard to the right to health.

In this respect also, there appears to be a contradiction of sorts. What do we mean, when we say right to health?

The term "health" is a very subjective one. It can mean different things to different people. There are people who consider themselves healthy if they do not have any disease or disability. Some people with only minor troubles may perceive themselves to be in poor health in case their concept of health involves a higher degree of well being. Certain other people, who have any disease or disability, may, in spite of these problems, term themselves healthy if they are able to manage their condition so that it does not have any great adverse impact on the way they live.

The main focus of the health care sector has often been the presence or absence of sickness, disease, injury and disability among the population. However, this does not constitute the whole picture. According to the World Health Organization, health is "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". This definition extends the notion of health to add to it a sense of positive well being.

There are many dimensions to the concept of health– physical, mental and social. During times of difficulty, strengths in one particular area of health may be counted on to supplement weaknesses in other areas. For example, the physical ill health experienced by older people can be, at least partly, balanced by positive reserves of mental health, and/or a supportive social environment. Two major dimensions of health are discussed below:

Physical Health

Physical health is associated with the functioning of the physical body. There are many diseases, injuries and disabilities that can affect the functioning of the human body. Every disease has its own features and processes and knowledge of these becomes important in dealing with the health of individuals affected by them.

Mental Health

The term mental health relates to the emotions, thoughts and behaviour of people. Normally, a person with good mental health is able to take care of day-to-day events and obstacles, work towards goals, and function effectively in society. However, even minor mental health problems can affect every day activities so that individuals are not able to function, as they would wish to, or are expected to, within their family and community. More serious and long-term mental health disorders may be diagnosed in an individual when he or she reaches a specific level of personal activity centred dysfunction.

These two dimensions of health – physical and mental, interact with one another. People with illness or disability may often feel depressed or anxious about their condition. On the other hand, positive emotions may contribute to a person's ability to recover from disease, while unhappiness or the lack of a strong sense of purpose may be factors that make the immune system more vulnerable to disease. People's outlook on life can affect lifestyle choices, which, in turn can influence the status of their health.[38]

If this is the prevailing and acceptable understanding as to what constitutes health, the judicial interpretation of right to health as a fundamental right poses more challenges than it seeks to resolve when it comes to meaningful and realistic enforcement of the right to health. Let me explain further.

Naturally, this kind of understanding takes within its fold umpteen dimensions which logically forms part of the judicial interpretation. For instance, in an innumerable number of studies, it has been documented in our own socio-economic context that lack of potable drinking water is the root cause for many of our health hazards. Undoubtedly, if governance takes appropriate measures to provide potable drinking water, millions of our population will be saved from related illnesses. Unhesitatingly, failure amounts and constitutes infringement of ones right to health. Whether our judiciary will be able to reiterate this stand is the most question.

Similarly, in case of healthcare, delivery centres in the form of primary health centres, a lot needs to be done to make them accessible to cater to health needs.

Again, availability of affordable and essential drugs is another related sphere, which warrants immediate attention from the State.

Will the judiciary be able to provide remedies for these omnibus kinds of problems that constitute essential facets of health? Any attempt in this respect will naturally attract criticism against the Judiciary claiming trespass into executive functions of State governance. Ultimately the focus boils down to budgetary allocation of resources which is

[38] "Health", *Measuring Wellbeing: Frameworks for Australian Social Statistics*, Statistical Concepts Library, Australian Bureau of Statistics, 2001.

a matter of political prioritisation in our democratic set up which is always considered as a prerogative of political authority. No doubt, the judiciary in its own way, recognised and reiterated the compulsive role and responsibility of the State particularly with regard to public health, in different contexts. However, these singular efforts have failed to bring about the desired social change in its larger perspective. It is known that every time when action is needed, the State expresses its inability owing to constraints of a financial crunch or crisis.

Or even if a contextual attempt were made, it would remain more as rhetoric without any practical enforcement. In other words, either way, the ultimate purpose may not be served. What then needs to be done?

- Strategically, it is desirable to direct the judicial focus to health care rather than health as such. Scope and ambit of health care is relatively narrower than health, amenable to meaningful implementation of judicial orders. Accordingly, specific and precise dimensions or facets of health care must be clearly spelt out. In addition, wherever it is required, efforts must be made to strengthen already existing statutory guidelines or mandates or applicable judicial orders. This is the first step.
- Secondly, instead of focussing exclusively on judicial intervention and remedies, it is necessary to initiate appropriate processes to sensitise the political authorities as well. This requires a concerted action to bring health care within political discourse. Collective efforts must be made to convince political leaders about the mileage that health issues can draw in the political processes.
- Thirdly, attempts must be made to legislate the right to health care with all its essential components, which ultimately paves the way for incorporation into our Constitution as a fundamental right.

Focus on Right to Healthcare

Essential components of the right to healthcare must include a) appropriate infrastructure in the form of primary health centres with attendant basic facilities; b) skilled human resources like medical professionals and other health care and paramedical staff rendering required range of services; c) medicines and supplies which are basic and essential; d) emergency medical care; e) patient information, redressal and f) monitoring and professional accountability.

Out of all the pronounced judicial interventions in respect of health and health care, instance of Orissa High Courts' pronouncement deserves our attention. Following can be discerned from the judgement.

- specific judicial order directing the State Government to establish and run primary health care centres. In addition, emphasising the significance of such measure in our socio-economic context. Neither a rhetoric or populist observation nor a non-implementable direction;
- such mandate was made possible because of the existing framework that underscores the participatory role of local self-government. In other words, if the local government succeeds in its task, through the judicial intervention, pressure can be brought against the State to implement the framework. Hence, it is necessary for us to focus on generating such frameworks contextually. This is absolutely possible because, in several States, Ministry of Health and Family Welfare has already kept in place such proposals by framing relevant rules and regulations. Efforts must be made to infuse life into such proposals by garnering and mustering strength from the local communities;

- this is made possible on account of another reason i.e., specificity in seeking judicial intervention which can be implemented in a given context and community. Efforts must be made more at a decentralised and community level in seeking judicial intervention and implementation of those measures.
- contextually, this can be construed as an appropriate tool for initiating political process as something, which the community longs to have, can be achieved in a very tangible sense.

No doubt, this intervention only relates to the establishment of a primary health centres, but this approach renders direction to us to replicate such precedents suitably customised and tailor-made to the context concerned, and move forward in meaningfully achieving other facets of health care as well.

Right To Health Care: Prescription for a Way Forward

Accessible and affordable health care services is our goal. In the light of our own experiences, this goal requires the following processes.

- instead of focussing on right to health as a fundamental right it is desirable to confine the debate to action for a right to health care;
- efforts must be made to realise and achieve meaningful implementation of already pronounced judicial orders pertaining to the right to health care;
- community support supplemented by political processes must be given attention to drive home the need for placing health care as an issue in our public life;
- statutory formalisation of right to health care must be lobbied either with the help of judicial intervention or political prioritisation or both.

Availability Of Drugs In India

S Srinivasan

Overall Drug Scenario

The drug (medicines) availability situation in India is one of poverty amidst adequacy – there is poverty of supply of even essential drugs to the poor despite adequate drug production. The Indian pharmaceutical market, with estimates for annual domestic sales ranging between Rs. 200 to Rs. 400 billion rupees (US $ 40-80 billion), implies that per capita annual 'availability' of drugs is now Rs. 200 to Rs. 400. Probably, the actual sales are at least Rs. 300 per capita at 2003 prices.[1] The government quotes lower figures. But it should be borne in mind that as per the ORG data, the total moving annual turnover from the retail sales of 300 brands alone is a whopping Rs. 19,000 crores[2]. The ORG data does not take into account institutional and governmental purchases, which would also be of very considerable magnitude. Nor does it take cognisance of the black market or the various "schemes", which are not in reality billed.

Even as large Indian drug companies make international pharma majors rue about HIV/AIDS drug pricing in South Africa, the poor average Indian finds the costs of drugs unaffordable. For many, getting sick in India and buying medicines is a sure route to further impoverishment and penury[3]. Many people are forced to sell their cows, buffaloes and even their homes whenever they try to access health services. Health care is the second leading cause of indebtedness in rural India.

Drugs are overpriced and unaffordable – let there be no mistake about it, even though some of them may be the 'cheapest' in the world. We will show below that the margins are extremely high in drug pricing and that more 'players' in the drug business has not resulted in lower drug prices.

How many drug units are there and how many formulations are made in India? As against the frequently quoted figure of about 20,000 manufacturing units, the actual number of drug manufacturing licenses issued was - bulk drugs (1333), formulations (4534), large volume parenterals, (134) and vaccines (56). The total number of

---

[1] This figure, at variance from Government of India's own figures of US $ 3.5 billion, is in an August 2003 letter from the WHO to the Mashelkar Committee and quoted by the latter in its report. The WHO letter went on to assure that "the majority of the Indian pharmaceuticals are produced by large manufacturers according to WHO Good Manufacturing Practices (GMP)." This figure has to be seen in the context of another figure: India produces 8% of the drugs available in the global market in terms of volume but the domestic market is valued at less than 1% of the global market.

[2] ORG Nielsen Data as of Oct 2003. The retail audit gives figures that are not really retail sales but price to the retailer from the wholesaler/stockist.

[3] The Reserve bank of India (RBI) Rural Indebtedness survey of late eighties showed that amongst non-production loans healthcare was the first reason and amongst all loans it was the 2nd reason for indebtedness. The 52nd NSS Round on morbidity, utilisations and expenditure records indebtedness due to hospitalization. NSS 42nd and 52nd round and various other surveys show that between 15-40% of reported morbidities were unattended because of economic reasons. The Rural Labour Enquiry Report On General Characteristics Of Rural Labour Households (55th Round Of N.S.S.) 1999-2000 shows that men (women) on the average worked for 222 (122) wage days in a year and lost 31 (77) days in a year due to sickness. See http://labourbureau.nic.in/RLE992k%20GenChar%20Annex%20I.htm. The average earnings for all households for men ranged from Rs. 40 to Rs. 54 (Rs. 28 to Rs. 34 for women) and at least 25 percent of rural households were indebted at any point of time.

manufacturing units engaged in the production of bulk drugs and formulations is not more than 5877.[4] According to the Director, National Pharmaceutical Pricing Authority of the Government of India (NPPA), the number of APIs (Active Pharmaceutical Ingredients) used is 550, APIs manufactured is 400, and formulations marketed are 20,000 under 8000 brand names.[5] The NPPA monitors about 20,000 formulations.[6] Although NPPA monitors only 8000 brands in 20,000 packs, the actual number of brands in the market would be higher. Even if we assume that on an average each of the 4534 formulators produce only 5 brands, the total number of brands would be about 20,000. Many of the big companies have over 50 brands at a time.

There has been a very rapid development of the drug industry in India, especially after the Indian Patent Act 1970. As a result, the per capita availability of drugs in India has increased phenomenally during last 50 years from Rs. 4 in 1948 to Rs. 300 in 2003, at current prices. Even after deflating this figure for price-rise, the rise is still considerable. However, the tragedy is, a majority of the people do not get adequate quantity and quality of drugs they need. There is great inequality in access to these drugs because of poverty, unnecessarily high drug prices due to unrestricted profiteering and a grossly inadequate public health sector. It has been estimated that about 30 per cent of morbidities are left unattended due to poverty.[7]

A district level detailed exercise - in Satara district, Maharashtra - a decade ago - had shown that in 1991-92, if the per capita availability of Rs. 100/- per year (1991-92 prices) were to be rationally and equitably used, all the drug-needs of the people for primary level care would have been met.[8] Though the consumer price index has doubled since then, yet the per capita availability of drugs has increased by at least 50 per cent due to the explosive increase of drug production from Rs. 50 to 70 billion rupees in 1992 to Rs. 200 to 400 billion rupees in 2003. However, availability of drugs for the majority of the people remains poor due to the deterioration of public health services on the one hand, and on the other hand the continuing accelerated increase in drug prices[9].

In the coming pages, we will substantiate this conclusion of 'poverty amidst adequacy'.

Poor Availability in the Public Sector

The proportion of out patient cases and hospital beds in the public sector is only about 20 and 40 per cent of the total respectively. Added to this is the increasing under supply

---

[4] Besides there are 199 medical devices units, 638 surgical dressings and 272 disinfectant units, 4645 loan licences and 318 repackaging units, 1806 blood banks, 2228 cosmetics units and 287other units not covered in the above categories. [Source: Mashelkar Committee Report (2003). Figures arrived at after soliciting information from each FDA or equivalent of all states of India.]

[5] Dr Appaji, Director, NPPA, at a WHO-SEARO workshop on "Medicines in SEA Region", Chennai, Dec 22, 2003.

[6] According to NPPA's figures, 56 percent of these formulations available are based on a single ingredient bulk drug, 20 percent on 2 bulk drugs, 8 percent on 3 bulk drugs, 4 percent on 4 bulk drugs, 2.5 percent on 5 bulk drugs and 9.5 percent on 5 or more bulk drugs. Appaji as cited before.

[7] See footnote 3 above.

[8] For a complete summary of conclusions of the Satara Study by Phadke, et al, see: Phadke, Anant. *Drug Supply and Use: towards a rational policy in India*, Sage Publications, New Delhi, 1998. Or see http://www.locostindia.com/CHAPTER_2/Essential%20drugs_5.htm

[9] See for example the article "Continuing Rise in Drug Prices- Brand Leaders Show the Way" by Wishvas Rane, *Economic and Political Weekly*, July 24-30, 1999 at http://www.epw.org.in/showArticles.php?root=1999&leaf=07&filename=352&filetype=html
Also see Rane's "Have Drug Prices Fallen?", *Economic and Political Weekly*, November 1 , 2003 at http://www.epw.org.in/showArticles.php?root=2003&leaf=11&filename=6439&filetype=pdf

of drugs to the pubic health facilities. The Satara district study[10] had shown that if all the patients coming to the primary health centres (PHCs)– 20 per cent of the total out patients in the community – were to be treated adequately, rationally, drug supply to the PHCs would have to be almost doubled. However, instead of increasing the allocation to health, Maharashtra government's health expenditure declined from 1 per cent to 0.6 per cent of State Domestic Product, during 1985-86 to 2002-03. The proportion of Central Government's expenditure on health care as a proportion of GDP, reduced from 1.3 per cent to 0.9 per cent during the same period, while the WHO recommendation has been 5 per cent! Out of the total drug consumption in India, only a very small proportion is consumed in the public sector, which caters primarily to the poor and the middle class. The situation was in any case bad even a decade ago as seen from the Satara district study. The drug-supply to the public sector in Satara District was a mere Rs. 5.6 million, as compared to the most minimum, reliable estimate of a drug sale of Rs. 213 million in the private sector during 1991-92. Things have worsened since then thanks to the new economic policy in the 1990s, expenses on public health as a proportion of government expenses has further declined.

A recent study in Mumbai substantiates these complaints. The Municipal Corporation of Greater Mumbai (MCGM) is probably the richest such city level corporation in India and the city of Mumbai is the pharmaceutical and business capital of India. A drug monitoring exercise (see Table 1) at a secondary hospital of the MCGM revealed 'that a little more than half (34 out of 60) the drugs prescribed for patients/clients seeking services at gynaecology out-patient clinic were not available on MCGM schedule. These included antibiotics such as norfloxacin and tetracycline, vaginal pessaries (used in treatment of reproductive tract infections), antispasmodics, anti-inflammatory drugs, hormone based drugs, neuro-regulators and drugs used for treatment of infertility. Most common reason for non-availability of drug was "Not on MCGM schedule".'[11]

Table 1
Drug Monitoring Exercise at the Secondary Hospital

	n = 148 (%)
All prescribed medicines available at the hospital pharmacy	29 (20 %)
Some medicines or part quantity available at the hospital	32 (22 %)
None of the prescribed medicines available at the hospital	74 (50 %)
Information not available	13 (9 %)

A review of the drugs listed in the Essential Drug List (EDL) and comparison with the Drugs Schedules of MCGM for May 2001 'showed that, of the 264 drugs listed in the EDL, 140 (53%) were not available on the MCGM drug schedules. Of the 123 drugs categorised in EDL as belonging to "U" (universal) category, 50 (40.7%) were not on MCGM Schedule.'[12]

Privatised Drug Accessibility

Given such a poor, gross under supply of drugs in the public health facilities, most of the drugs available in India are through the market. This privatised drug accessibility is quite problematic in view of high levels of poverty and unrestricted

[10]For a complete summary of conclusions of the Satara Study by Phadke, et al, see: Phadke, Anant. *Drug Supply and Use: towards a rational policy in India*, Sage Publications, New Delhi, 1998. Or see http://www.locostindia.com/CHAPTER_2/Essential%20drugs_5.htm

[11] Anagha Pradhan, Renu Khanna, Korrie de Koning and Usha Ubale in "Quality Assurance in a Public Health System: Experiences of Women Centred Health Project, Mumbai, India", SAHAJ, Baroda, 2004

[12] Anagha Pradhan, et al, op.cit.

profiteering by the drug-industry, combined with a lot of wastage of patients' money on account of irrational fixed dose combinations and wastage on promotional expenses (huge expenses on 'promotional' activities are necessary for the private sector but it merely adds cost to the patient.) Let us first dwell a while on this phenomenon of irrational drug combinations.

Irrational Drug Combinations

Out of about 1500 scientifically proven drugs mentioned in standard medical textbooks, a little less than 400 are Essential Drugs. Out of these 400, only about 40 are rational fixed dose combinations (like iron-folic acid, oral rehydration salt, co-trimoxazole, etc.) recommended by standard textbooks. All other fixed dose combinations are irrational. In India, all available studies show that most of the fixed-dose combinations studied were irrational.[13] In these irrational combinations, there generally is one drug that is useful, whereas others are unnecessary additions. These additions unnecessarily increase prices; add to the task of quality and price control as well as side effects. These irrational fixed dose combinations are an important cause of unnecessarily high drug prices, which in turn act as a barrier to access to drugs for poor people.

High Priced Branded Drugs

The second important cause of high prices is that most of the drugs marketed in India are under brand names. Paracetamol tablet, the simple medicine for reducing pain and fever costs around 13 paise to produce. When sold under its brand name Crocin, Metacin, Calpol, etc., the same tablet costs four to fives times the cost price! The not for profit Baroda-based NGO, LOCOST, sells it at Rs 1.60 per strip of 10 tablets.

The price of the brand can vary very widely, depending upon various marketing considerations and has no relation to the cost of production. Table 2 demonstrates this in case of amlodipine, an antihypertensive drug (drug for high blood pressure). It shows that there is an 862 per cent difference between the cheapest and the costliest in a drug with at least 40 formulators. The multinational has the drug with the maximum price. Similar examples abound in other drugs.[14]

Table 2
Different Prices of Amlodipine[15]

Brand name	Company	Price per tab. of 5 mg*
Amlogard	Pfizer	Rs. 4.81
Stamlo	Dr. Reddy's	Rs. 2.47
Amlogen	Alkem	Rs. 1.20
Amlodac	Alidac	Rs. 0.50

Source of prices: April-June 2002 edition of CIMS

[13] See for instance: Pharmaceuticals: Restrictions in Use and Availability (WHO/EDM, 2001); Guide to good prescribing: A practical manual (WHO/EDM, 1994); WHO Policy Perspectives on Medicines 2002, June: The Selection of Essential Medicines (WHO/EDM, 2002); The Use of Essential Drugs: Ninth Report of the WHO Expert Committee (WHO/EDM, 2000). See also for analyses of Indian situation prevailing:

a) Desai, S.V. 1990. 'Anaemia and Oral Haematinic Preparations'. *Drug Disease Doctor*; Vol. 3, No. 2.
b) Desai, S.V. and R.S. Desai. 1991. 'Rational Cough Mixtures: Analysis of Proprietary Preparations'. *Bulletin of Society for Rational Therapy*, Vol. 3, No. 5.
c) Modak, Shishir. 1984. *Rationality Analysis of Anti-diarrhoeal Preparations*. Medico-Friend Circle, Pune.
d) Phadke, Anant. 1985 'Scientific Scrutiny of Over the Counter Drugs'. *Medical Service*, Oct-Nov, pp. 30-42.
e) Phadke, Anant and Deepak Deshpande. 1992. 'A Review of Haematinics Marketed in India'. *Drug Disease Doctor*. No. 28, pp. 88-92.
f) Rane, Wishwas. 1994. 'Ayurvedic Drug Formulations: Are They Rational?' Paper Presented at the IOCU-ACASH Workshop on Consumer Education, Drugs and Media, April 3-4, Bombay, p.5.
g) Uhrig, Jamie and Penny Dawson. 1985. *A Rationality Study of Analgesics and Antipyretics*. Medico-Friend Circle, Pune.

[14] See Bhargava, Anurag , "Tremendous Variations in Drug Prices in the Indian Pharmaceutical Market" in LOCOST (2004), op.cit.

[15] Courtesy Anurag Bhargava for Table 2 as also for reference in footnote16.

A study published by Roy and Rewari in the Indian Journal of Pharmacology[16] that surveyed the variation in prices of 84 formulations used in the management of cardiovascular diseases in the Indian market concluded that variation in prices ranged from 2.8 per cent to 3406 per cent.

The same drug company prices the same drug under different brand names at different prices, sometime the drugs are 'positioned' in the same state for different market segments. For example cefuroxime tablets are manufactured by GSK under the brand names of Ceftum and Supacef at different prices - Rs. 80.91 and 63.01 respectively for 125 mg tablets and Rs. 150.34 and 144.94 respectively for 250 mg tablets. Similarly ciprofloxacin 250 mg Tablets are manufactured by Lupin under the brand names of Ciprova and Lucipro 250 at different rates of 41.79 and Rs. 31.62 respectively. Again, gentamycin injection by PCI sells as G-Mycin and Gentasporin at Rs. 6.80 and 7.68 respectively.

Since the consumers are not aware that these different branded products contain the same medicines and anyway, it is the doctor who decides which brand to prescribe, they do not even know that they have been cheated! All medical textbooks and other health authorities naturally deal with only generic names. The government can decide that all drugs will be sold only under the generic name, with the drug company's name in brackets. This will enable patients to compare prices of the same drug being marketed by different companies. On the other hand, doctors while prescribing can choose between companies depending upon the reputation of the company. In 1975, the Health committee had recommended a process of beginning the process of abolition of brand names. But this recommendation was not implemented. Thanks to higher prices of branded drugs, many poor people are effectively denied access even to life-saving drugs.

Decontrol of Drug Prices

Medicine is a unique commodity. Consumer resistance is lowest here as a suffering patient is in a compromised physical, mental framework and is ready to pay excessively to get relief. The prescriber does not pay and the buyer does not decide if and which medicine to buy.

Further, in India, in absence of any regulation of the medical profession or the drug industry the individual consumer is more vulnerable than in, say, Western Europe, where it is the publicly funded powerful health insurance system that negotiates the prices with the drug-companies. Hence to protect the interests of this vulnerable group, drug prices should be under control. But during the last 15 years, the Indian government has reduced price-controls drastically, exposing the patient to the profiteering of the drug-industry.

Table 3 shows that the number of drugs under price control have progressively decreased from 347 in 1979 to 76 in 1995 and the margin allowed on even 'essential drugs' under price-control has increased from 40 per cent to 100 per cent. The drugs, which have been taken out of price-control, have shown a higher price-rise than those under price-control. Earlier there were categories and the more essential had lesser profit margins. For instance in the 1987 drug policy there were two categories: Category 1 were those drugs required for the National Health Programme and the MAPE (maximum allowable post manufacturing expense) incurred from the stage of manufacturing to retailing and manufacturers' margin allowed for drugs in this category was 75 per cent; Category II were drugs other than those in category I but which are also considered essential for health needs and a MAPE of 100 per cent

[16] V. Roy, S. Rewari (1998). "Ambiguous Drug Pricing: A Physician's Dilemma". *Indian Journal of Pharmacology*, ***30***: 404-407.

for formulations was allowed while fixing the prices for this category of drugs.

It was the stated aim of the Pharmaceutical Policy of 2002 (henceforth PP 2002) to reduce the 'rigors of price control'. It was widely expected by industry that only about 30 to 34 drugs would remain under price control.[17]

Even the so-called free market countries of the EU and UK have some form of controls – price controls, volume controls and cost-effectiveness controls. Twelve out of 16 West European countries control prices of drugs directly. Even the Report of the Government of India's Drug Price Control Review Committee (DPCRC) noted that:

"...in most other countries, the regulation of the drug prices is considered necessary to contain public expenditure due to government's role in funding social health and insurance schemes that cover hospital and out-patient drugs. The price regulations are used as an instrument to keep their health budgets within reasonable limits. In these countries, a substantial proportion of the population is covered through health insurance and public health schemes. As a result, the consumers are not affected directly by the high prices of drugs or high costs of medical services, but are made to pay for the increased prices/cost through high insurance premium. As opposed to this, a substantial proportion of the population in India is market dependent and have to meet all their expenses out of their own pocket on this account, making price regulation of pharmaceutical products in the market unavoidable."

Nevertheless the Government has chosen to ignore this advice as evidenced by its intentions to 'lessen the rigors of price control' in Pharmaceutical Policy 2002. The Policy of 2002 itself is riddled with illogic as pointed out in a Supreme Court Petition

Table 3
Comparative Chart Summarising Price Control Scheme under Various (DPCO) Drug Price Control Orders

	DPCO 1979	DPCO 1987	DPCO 1995	Present Mar 2004
1 No of drugs under Price Control	347	142	76	74
2 No. of categories under which the abovedrugs were categorised	3	2	1	1
3 MAPE % allowed on normative/ National ex-factory costs to meet Post-manufacturing expenses and to Provide for margin to the mfrs.				
Category I	40%	75%	100 %	100%
Category II	55%	100%	N.A.	
Category III(Single ingredient Leader products)	100%	N.A.	N.A.	
4 Total Domestic pharma sales covered under Price-Control (Approx.)	90 %	70 %	50 %	—

N.A. = Not Applicable

[17] The Karnataka High Court had stayed the pricing part of the policy that would lead to further decontrol and the matter is now in the Supreme Court pending appeal by the Government of India.

by AIDAN and others[18] and would result in reducing the basket of price control to less than 30. We show below - briefly - how the policy's assumption that competition and free market works to bring down prices and make drugs abundantly available is not tenable, especially in the absence of well-functioning public health services and/or universal access to health insurance.

Competition Does Not Always Lead to Lowered Prices

The basic premise of removing price controls has been that competition will lower prices and that a free market exists now that we are in a post-liberalisation era, at least freer as compared to earlier times. For example the document Modifications in Drug Policy 1986 had this criteria: 'Drugs in which there is sufficient market competition viz. at least 5 bulk drug producers and at least 10 formulators and none having more than the 40% market share in the Retail Trade (as per ORG) may be kept outside the price control.'

In reality prices of drugs have been constantly on the rise.[19]

There is no free market operating in the area of medicines, in pharmaceutical industry and in health and hospital services sector. The buyer/end user namely the patient has no choice. Informed choice involving techno-scientific issues is not possible for the lay consumer. Instead it is the doctor/prescriber who makes the choice for the consumer. The consumer has no easy way of evaluating doctor's prescriptions and advice. Both these assumptions – of a free market and that of competition reducing prices – are contestable.

Table 4 gives further justification of our assertion of weak and imperfect competition. If we go through the column on market share it shows that for most of the products, around 40–50 per cent of the market is cornered by the leading 3-4 products. This happens in almost all the products. All the drugs mentioned in the table are antibiotics and antibacterials of one kind or the other. All but one namely cephataxime will be out of price control as per PP 2002.

In all these (that is the drugs for instance cited in Table 4) we find that the top-selling brand of a particular category often is also one of the higher priced and usually is the highest priced. The brand leader is also the price leader. If true competition and free market characteristics were present, the brand leader, that is the top selling brand, would almost always sell at the lowest prices. The conclusion to be drawn is that competition does not always work in pharmaceuticals in the retail market in bringing down the prices, especially when there are many players, and therefore price control is necessary. Competition seems to work in bringing the price of the monopoly producer in the early stages of the product life cycle of a drug formulation. But when the company knows that the sensibilities of the consumer/patient can be played upon, then the same drugs are priced to attract the high-end consumer.

For competition to work, a referee is needed in the form of an efficient regulatory agency with teeth – an agency that responds to market signals with alacrity. (The fact that competition does not lead, necessarily, to lowered prices in the pharma sector has been acknowledged by no less than a former chairperson of the National Pharmaceutical Pricing Authority, Mr Arun Kumar. See interview with Shri Arun Kumar, *The Economic Times, Sept 5, 2000.)*

[18] AIDAN and ors. Versus Union of India in the Supreme Court of India–WP (Civil) 423/ 2003). See also for arguments of the case summarized in *Impoverishing the Poor: Pharmaceuticals and Drug Pricing in India,* LOCOST, and Baroda, 2004. Hereafter LOCOST, 2004.

[19] Rane, op.cit, footnote 6.

Table 4
Antibiotic Brand Leaders, Market Share and Price Behaviour: A Brief Overview

Drug Product	Market Turnover of Product in Rs. crores	Brand Name of Product Leader (s)	Market Share of Product Leader (in %)	Product Leader is Price Leader?	Remarks
Cefataxime Injection	122	Taxim	63%	Yes	
Ceftrioxone Injection	136	Monocef	35 %	No	Price Leader is Becef
Cefuroxime Tablets	13	Ceftum	38 %	Yes	
Cephalexin Capsules	171	Phexin Sporidex	69 %	No No	Price Leader Ceff is 10 % more costly
Amoxycillin Capsules	212	Mox Novamox	47 %	Yes Yes	
Amikacin Sulphate Inj	69	Mikacin Amicin	68 %	No No	
Chloramphenicol Capsules	41	Chlormycetin Enteromycetin Paraxin Kemicetine	86 %	Yes Yes Yes Yes	Chloromycetin is the costliest
Ampicillin + Cloxacillin Caps	109.	Megapen Ampoxin	78 %	No No	
Ciprofloxacin Capsules	272.	Cifran Ciplox Ciprobid Alcipro	56 %	Yes Yes Yes Yes	Four brands dominate the market; the product is costly; but still would not be in price control as per PP 2002. Currently in price control.
Doxycycline Capsules	63.	Microdox Doxy - 1	46 %	Yes Yes	
Roxithromycin Capsules	98	Roxid	49 %	Yes	
Erythromycin Tablets	95	Althrocin Erythrocin	84 %	Yes No	
Azithromycin	63	Azithral	30 %	Yes	
Norfloxacin Tablets	53	Norflox	61 %	Yes	
Gentamycin	38	Genticyn	33 %	Yes	

(All data as per ORG-AC Nielsen Retail Audit, Oct 2003). Table reproduced from LOCOST 2004, op.cit.

Drugs in Price Control and those out of it: Theatre of the Absurd[20]

If you look at the list of drugs that are out of price control, one would be amazed to see the following critical drugs in the list despite selling at variable prices in the market: Oral Rehydration Salt (ORS,) very useful in most of the diarrhoeas; all anti cancer drugs; drugs for TB (like INH, ethambutol, pyrazinamide); drugs for malaria (primaquine, quinine, artemesin); all drugs for HIV/AIDS; drugs for leprosy (dapsone, clofazimine); diethylcarbamazine citrate (for filariasis); atenolol, enalparil, hydrochlorthiazide, amlodipine (all drugs for hypertension); glyceryl nitrate, isosorbide nitrate, beta blockers and calcium channel blockers (for coronary artery disease); vaccines of every kind including cell culture derived rabies vaccine; anti-tetanus serum, anti-diptheria antitoxin; anti-D immunoglobulin; phenytoin, carbamazepine, valproic acid (anticonvulsants). On the other hand the DPCO list of 74 drugs in price control include hazardous drugs like analgin, phenylbutazone; an outdated drug like sulphadimidine; and non-essential wonders like Vitamin E, diosmine, pantothonate and panthenols and becampacillin.

Considering the pharmaceutical market, where the products determine life and death, it becomes imperative that a different kind of 'marketing' structure dictate, keeping in mind that high cost often means a choice between living and dying. We believe that even though marketing 'creativity' in the market should be rewarded, it should not be unreasonable to the extent that the inefficiencies and marketing overheads of the market leader be rubbed off on to the consumer. For that is what we are doing when we legitimise a higher price of a brand: reward a company for its inefficiency and inability to sell at a lower price thereby increasing the costs of health care.

Top-Selling 300 Drugs in India: Many Promoting Wants but Not Meeting Needs[21]

- If we examine the list of top 300 brands (as per ORG-Nielsen Oct 2003, see Table 4 for a partial list), we find that only 115 brands are of drugs that are mentioned in the National List of Essential Medicines (NLEM) 2003, i.e., only 38% of brands of the top selling ones are of drugs mentioned in the NLEM, the other 62% are of drugs which do not find mention in the NLEM. Of these 62% brands comprise drugs, which are higher priced alternatives without a clear therapeutic advantage, and many drugs, which are unnecessary, irrational and even hazardous. The number of drugs represented by these 115 brands is only 68.
- The National List of Essential Medicines includes 354 drugs. The majority of the top selling brands are of drugs which are outside the National List of Essential Medicines, which means that the majority of the drugs which are the most cost-effective for the treatment of priority health needs of the people are not the ones which are selling the most.

[20] Box courtesy Anurag Bhargava. See for detailed discussion: Bhargava, Anurag . "Price Control Policy and Public Health: Irrelevance and Danger of Applying only Economic Criteria", in LOCOST 2004, op.cit.

[21] Source: 'Anomalies in Drug Pricing' by Anurag Bharagava in *mfc bulletin*, June-July 2004. See also: *Surviving the Pharmaceutical Jungle* by Nobhojit Roy and Neha Madhiwalla is a new study on the unethical promotional practices of pharma companies in India. See also the *Indian Journal of Medical Ethics*, Jan-Feb 2004. For the study see www.issuesinmedicalethics.org/docs/Pharmrpt.pdf

- A cough syrup, which has potential for addiction (Corex) and has been banned from distribution in many states of the north-east, is the top selling medicine brand in the country with an annual turnover of nearly Rs. 80 crores. Elsewhere, a combination of multivitamin, minerals, and ginseng unknown to the pharmaceutical world outside India is ranked 27th in this list and has sales of Rs. 47 crores.
- Nise (generic: nimesulide), the 14th top-selling brand, is a pain and fever relieving drug withdrawn from distribution in its country of origin and not available because of its toxicity in UK, USA, and other developed countries, nor even in neighbouring Sri Lanka and Bangladesh. It is freely available in India as a single drug and with a bewildering number of combinations.
- A significant number of the top selling formulations are combinations of drugs, rather than single ingredients. In fact there are 118 combinations in the list of 300. Only around 20 of these combinations are rational, the rest are combinations, which lack any therapeutic rationale.

Profiteering by Drug Industry

This is the most important reason for making drugs inaccessible to the ordinary people. Table 5 reveals the extent of profiteering

Table 5 compares the retail market prices of six common medicines with those paid by the Tamil Nadu Government through its open, transparent tendering process. The Tamil Nadu Medical Services Corporation

Table 5
A Comparison of Tender Rates and Retail Market Rates

Drug Name	Name of Firm	Tender Rate (Rs.)	Unit	Mfr.	Retail Market Price (Rs.)	Over-price Index Col (6)/(3):	Tender Rate as percent of Retail Mkt. Price
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Albendazole Tab IP 400 mg	Cadila Pharmaceuticals P Ltd	22.60	10×10 tablets	Torrent	1190	52.65	1.89
Bisacodyl Tab IP 5 mg	Lark Laboratories (I) Ltd	16.50	10×10 tablets	German Remedies	717	43.45	2.30
Alprazolam Tab IP 0.5 mg	Bal Pharma Ltd	3.50	10×10 tablets	Sun Pharma	141.5	40.43	2.47
Diazepam Tab IP 5 mg	Pharmafabricon / LOCOST	3.05	10×10 tablets	Ranbaxy	92.5	30.33	6.26
Folic acid and Ferrous Tab NFI	Aurochem India P Ltd	5.89	10×10 tablets	Smith Kline	148.5	25.21	3.97
Amylodipine Tab 2.5 mg	Lark Laboratories (I) Ltd	9.10	10×10 tablets	Lyka	148.5	16.32	6.13

Excerpted from: Srinivasan, S. "How Many Aspirins to the Rupee? Runaway Drug Prices", *Economic and Political Weekly,* February 27-March 5, 1999.

(TNMSC) ensures that drugs brought through the tenders are of good quality. By way of example, it will be seen from Table 5 that Cadila, a reputed concern can sell in bulk, Tab. Albendazole for 22 paise whereas the same tablet is sold by Torrent in the retail market for Rs. 11.90 a tablet! Through the retail market prices in strip form are bound to be higher than the tender prices for bulk purchases, when they are 15 to 53 times higher, to be sure this is a result of the mind boggling profiteering by the drug industry with those paid by the Tamil Nadu Government through its open, transparent tendering process. The prices of finalised tender awards are available on the web (http//www.tnmsc.com/ 11rate0304doc). The Tamil Nadu Medical Services Corporation (TNMSC) ensures that drugs brought through the tenders are of good quality.

In government tenders crores of tablets are brought at a time. Thus many companies can afford to give special low rates by reducing the rate of margin, as they earn their money at one go when the medicines are supplied in bulk on approval of the tender. Hence a better comparison of retail market prices will be done by comparing these with the Maximum Retail Prices of LOCOST, the not for profit initiative in drug-production and sale of

Table 6
Shocking Margins - A Sample Comparison of LOCOST Medicine Prices and Retail Prices

No	Name of Drug	Strength	Use	LOCOST Baroda Price*	MRP of Standard Company*	[Retail Market Prices/LOCOST prices] x 100
1.	Albendazole Tabs	400 mg	Against worm infestation	Rs. 11.00 per strip of 10 Tabs	Rs. 9.00 per Tab (strip of 1 Tab)	818
2.	Amlodipine Tabs	5 mg	Anti hyper-tensive (for high BP)	Rs. 2.50 per strip of 10 Tabs	Rs. 21.77 per strip of 10 Tabs	870
3	Amoxycillin Capsules	500 mg	Antibiotic	Rs. 19.75 per strip of 10 Tabs	Rs. 68.60 per strip of 10 Caps	347
4	Atenolol Tablets	50 mg	Anti hypertensive (for high BP)	Rs. 2.80 per strip of 14 Tabs	Rs. 20.00 per strip of 14 Tabs	714
5	Enalapril Maleate	5 mg	Anti hypertensive (for high BP)	Rs. 3.00 per strip of 10 Tabs	Rs. 22.58 per strip of 10 Tabs	753
6	Fluconazole Capsules	150 mg	Antifungal	Rs. 35.00 per strip of 10 Caps	Rs. 29.50 per cap (Strip of 1 Cap)	8429
7	Glibencla-mide Tab lets IP	5 mg	Anti diabetic	Rs. 1.50 per strip of 10 Tabs	Rs. 3.73 per strip of 10 Tabs	249
8	Metformin Tablets	500 mg	Anti diabetic	Rs. 3.00 per strip of 10 Tabs	Rs. 6.45 per Strip of 10 Tabs	215
9	Paracetamol Tabs – 500 mg	500 mg	Fever reducing	Rs. 2.00 per strip of 10 Tabs	Rs. 6.90 per strip of 10 Tabs	345
10	Rifampicin Capsules	450 mg	Anti TB	Rs. 32.00 per strip of 10 Caps	Rs. 59.12 per strip of 10 Caps.	185

* *Drug Today* (April - Jun 2003). LOCOST Prices as of June- Sep 2003.

quality generic drugs for the non-profit sector. This comparison is done in Table 6.

Huge Margins for the Traders

The new phenomenon in recent years has been the huge trade margins available to the pharmaceutical distributors and retailers. These huge margins have arisen due to the competition between big and small companies to capture the 'branded-generic market'. The competition between companies is benefiting the traders rather than lowering the prices for consumers. This huge margin for traders or to any bulk buyers like doctors, hospitals are given in Table 7. Note in Table 7, the margins in Col (i) are only from distributor to retailer. The manufacturer to-distributor margins are separate from these. The DPCRC [Drug Price Control Review Committee 1999, Chapter VI, Summary and Recommendations, 11 (vii)] had this to say:

"It has also been observed that some of the manufacturers tend to provide unduly high trade margins, adversely affecting the consumer interest. Therefore, the committee is of the view that to discourage unethical practices by the players, the difference between the first sale price of a formulation by the manufacturers and the retail price printed on the label be limited to a maximum of 40 per cent of the MRP in the case of decontrolled formulations."

Table 7
Extent of Trade Margins - Some Examples

(All prices in rupees. Source of Prices: Distributor's Documents)

Sr. No.	Brand Name	Content (s)	Manufacturer	Use	Packing Unit	Distributor's Price	MRP	Trade Margin Percentage[(g)/(h)] x 100
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1.	Ibu Gesic 500 Ml	Ibuprofen 100 mg per 5 ml	Cipla Ltd.	Pain, fever, inflammation	500 ml	25.00	60.00	240
2.	Mycobact 800	Ethambutol 800 mg tabs	Cipla Ltd.	Anti-TB, Leprosy	10 x 10	135.00	400.00	296
3.	Tetrabact-250	Tetracycline	Cipla Ltd.	Antibiotic	10 x 10	44.00	84.60	192
4.	Cofdex P	Cough expectorant substances	Cipla Ltd.	Cough Syrup	60 ml	8.50	22.70	267
5.	Tricast – Orthopaedic Polyster Casting Tape	Casting Plaster	Samyang Corpn. – Korea Mktd By Cipla	Casting Plaster	1 pc	240.00	570.00	238
6.	Nicispas	Nimesulide 100 mg + Dicyclomine 20 mg	Cipla Ltd.	For Fever and Pain	10 x 10	35.00	250.00	714
7.	Pyzid-750	Pyrazinamide 750 mg	Cipla Ltd.	Anti TB	10 x 10	175.00	650.00	371
8.	Pregtest Kit	Pregnancy Test Kit	Cipla Ltd.	Pregnancy Test Kit	1 kit	13.00	35.00	269

Table 7 Continued...

Sr. No.	Brand Name	Content (s)	Manufacturer	Use	Packing Unit	Distri-butor's Price	MRP	Trade Margin Percent-age[(g)/ (h)] x 100
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
9.	Coxkit-4	Combinat-ion of Anti TB drugs	Cipla Ltd.	Anti TB	15 x 2 x 1 kit	276.00	551.10	200
10.	Protibin	Vitamins and Nutrients	Cipla Ltd.	Vitamins and Nutrients	200 ml	17.50	55.00	324
11.	Gentacip-Eye Drops	Gentamycin Sulphate	Cipla Ltd.	Eye drops	600 x 5 ml	3.50	7.09	203
12.	Cafepar	Paracetamol 500 mg + Caffeine 25 mg	Cipla Ltd.	For fever and pain	10 x 5 x 10	105.00	800.00	762
13.	Doxicip-100 Cap	Doxycycline 100 mg	Cipla Ltd.	Antibiotic	20 x 10	140.00	295.80	210
14.	Fericip Tab – Chewable Tablets	Iron Polymaltose with Folic Acid	Cipla Ltd.	Irrational Iron supplem-ent for anaemia	10 x 10	170.00	450.00	265
15.	Vasotop	Nimodipine 30 mg	Cipla Ltd.	For High BP	10 x 10	250.00	600.00	240
16.	Megaclox-Lb	Ampicillin 250 mg + Cloxacillin 250 mg	Cipla Ltd.	Irrational combina-tion of Antibiot-ics 10x10	190.00	600.00	316	
17.	Nicip Md	Nimesulide 100 mg	Cipla Ltd.	For fever	10 x 5 x 10	100.00	1450.00	1450
18.	Okaflox-400	Ofloxacin 400 mg	Okasa Pharma. Ltd.	Antibiotic	10 x 10	330.00	1600.00	1531

Wilful ignorance of the Government's own committees?[22]

[22] Even as we go to the press the Union Minister for Chemicals and Fertilizers Ram Vilas Paswan himself "found this out when he ordered a market study of formulations of three widely used drugs namely nimesulide, omeprazole and cetrizine in the Delhi market. Take the case of nimesulide as an example. The study shows that while the wholesale price of generic nimesulide 100 mg is only Rs.1.20 for a 10 tablet strip, its MRP is a high as Rs. 30 in case of one company. At the same time, the MRP of Dr Reddy's brand, Nise, is Rs.38.61.Many such products with wide price variations have been brought out by the study. A nationwide study of generic pricing could be much more revealing than the Delhi one." Source: P.A.Francis, 'Paswan on the Right Track' in Pharmabiz.com, August 10, 2004. Hope the Government has woken up and we see some positive action.

Stranglehold of Retail Pharmacists: 'A Parallel Government'

Irrational drugs and tonics and syrups often enjoy 500-1000 percent trade margins. Now these margins are available even in generic drugs, which are otherwise rational. The situation in this regard in small towns and taluka level places and in states with relatively weak drug administration is really alarming. Drug producers are at the mercy of retail pharmacists (at last count more than 250,000 all over India)[23]. But in this the drug producers are also to be blamed. They bribe doctors as well as retail pharmacists to push sales. Retail pharmacists refuse to sell products of particular companies if margins are not increased.

"Dilip Mehta, president of the All India Organisation of Chemists and Druggists, which represents 500,000 Indian pharmacists, boasts of how his association also has forced drug companies to sign "memorandums of understanding" in which they agree to increase profit margins to pharmacies."

"They have to surrender," Mr. Mehta says, speaking from his tiny office at the rear of a wholesale apparel centre in Bombay. The chemists association, he says, is like "a parallel government."[24]

Comparison with Earning of a Wage Labourer

What is the implication of this profiteering for a labourer, who earns Rs.60/- a day? Anurag Bhargava has worked this out in case of ten common illnesses (see Table 8). In the accompanying table, the cost of drug treatment is compared for some common illnesses in terms of number of days of earnings that a labourer would have to spend to buy these drugs. This table gives an idea about how hard it is for a labourer to buy these exorbitantly costly drugs in his struggle for survival.

Table 8
Drug Costs and person Days in Terms of Wage Labour

Problem	Upper level of drug costs be spent in earning the drug cost.	No. of person-days to
1. Streptococcal pharyngitis (sore throat)	Rs. 109.8	1.8
2. Bacillary dysentery	Rs. 84.2	1.4
3. Treatment of iron deficiency anaemia for 6 months	Rs. 3744	62.4
4. Tuberculosis treatment for 6 months	Rs. 2616	43.6
5. Treatment of multi-drug resistant TB for 18 months	Rs. 44190	736
6. Hypertension treatment for 1 year	Rs. 1076.75	17.95
7. Diabetes mellitus with oral drugs like glicazide	Rs. 2073.2	34.5
8. Coronary artery disease	Rs. 12541.4	209
9. Prevention of Hepatitis A	Rs. 1856	30.9

Source- Bhargava, Anurag in: LOCOST, Impoverishing the Poor, op.cit., page 48.
Assumptions made in the calculations are also discussed therein.

[23] According to the Mashelkar Committee Report: "From the information conveyed by the States, it is observed that there are 418411 total number of sales licenses including 253666 retail licenses and 145447 wholesale licenses and a combined figure of 19298 retail and wholesale licences given by Karnataka. This total number is not absolute because majority of the sales units have both retail as well as wholesales licenses. Currently, there are 935 Drug Inspectors in all States/UT's in the country put together. Presuming that the number of sales units to be inspected will be approximately 300,000, the number of Drugs Inspectors required is estimated to be 1500."

[24] 'Drug Firms' Incentives Fuel Abuse by Pharmacists in India', Daniel Pearl and Steve Stecklow in *The Wall Street Journal*, August 16, 2001.

Substandard Quality

Access to substandard drugs is no access at all. In India, substandard drugs significantly add to the problem of accessibility. The Government-appointed Mashelkar Committee (2002-03) examined various estimates, widely varying, and often fuelled on guesstimates and speculation and concluded that there is no authentic data on the extent of the problem. 'Based on the samples tested by the State authorities, data were analysed for the period 1995-2003. According to these data, the extent of sub-standard drugs varied from 8.19 to 10.64 per cent and of spurious drugs varied between 0.24 per cent to 0.47 per cent.' (See also the adjoining boxes, 'What's the actual situation on the ground' and 'Paucity of Testing Laboratories'.)

Several possible factors contribute to proliferation of substandard drugs. Some of the prominent ones pointed out by the Committee are:

- Lack of enforcement of existing laws.
- Weak penal action
- Very remunerative trade
- Large scale sickness in small scale pharmaceutical industry
- Availability of improved printing technology that helps in counterfeiting
- Lack of coordination between various agencies
- Too many retail and whole sale chemist outlets
- Inadequate cooperation between stakeholders.
- Lack of control by importing/ exporting countries
- Wide spread corruption and conflict of interests

What's the Actual Situation on the Ground?[25]

According to Harinder Sikka, senior President, Nicholas Piramal, there are only 600 inspectors for 20,000 registered drug producers in the country.

In Delhi, for example, 20 inspectors are on duty for 8,000 registered chemist shops, which means one inspector for 400 shops. "The inspectors have obviously chosen the best way out. Concentrate on a few chosen chemists and improve your lifestyle," Sikka says tongue-in-cheek.

He, though, strongly defends the death penalty suggested by the Mashelkar committee and gives the example of a Chandigarh-based company that was using contaminated tap water instead of the drugs in vials....

.

.... Sikka has a simple question: "A majority of these manufacturers operate from garages and hovels. Who is renewing their CGMP licences?"

Paucity of Testing Laboratories

"Only 17 States have drug testing and even among these laboratories, only about 7 have the capacity to test all classes of drugs. On an average, about 36,000 samples are tested annually, both in the Central and State drug testing laboratories. The number is, however, inadequate as compared to number of batches of thousands of formulations manufactured in the country. Because of less capacity to test, the time taken to complete the testing of drug samples is observed to be taking even a year. This does not serve any purpose. As a result,

[25] "An overdose of intention", September 15, 2003 at http://www.rediff.com/money/2003/sep/15guest.htm

samples of less than 1 % of the batches of drugs manufactured in the country are exposed to scrutiny by the Government drug testing laboratories. The number of samples that are reported every year as not of standard quality by the Central and State Government laboratories are only indicative of lax quality assurance system in the manufacturer's quality control labs and are not representative of the actual situation in the country. The limitations in testing of drug samples in the government labs are related to the absence or lack of sophisticated instruments, lack of trained analysts, lack of commitment, lack of reagents, non-validated methods, shortage of funds, inadequate number of staff and in many cases a combination of more than one of these constraints."

Source: Mashelkar Committee Report (2003)

Rays of Hope

In this overall depressing scenario on the availability of quality drugs for the majority, there have been some positive initiatives, which offer a ray of hope.

NGO Initiatives

For the last 20 years, LOCOST, a non-profit NGO enterprise has been supplying quality drugs in generic name to the non-profit health NGOs at very low prices. The extent in saving for the consumer can be seen from Table 6. A similar effort of church-based groups called the Comprehensive Medical Services India (CMSI) has been in existence in Chennai for the last 10 years. Centralised bulk purchase efforts like that of the CDMU (Central Drug Marketing Unit), Kolkatta, at negotiated prices from a variety of manufacturers, has also resulted in considerable savings to the institutional consumer. The Methodist Church-run Bangarpet Tablet Industry near Bangalore, has been supplying low priced medicines to missionary health institutions since 1919.

Pooled Procurement in Public Sector

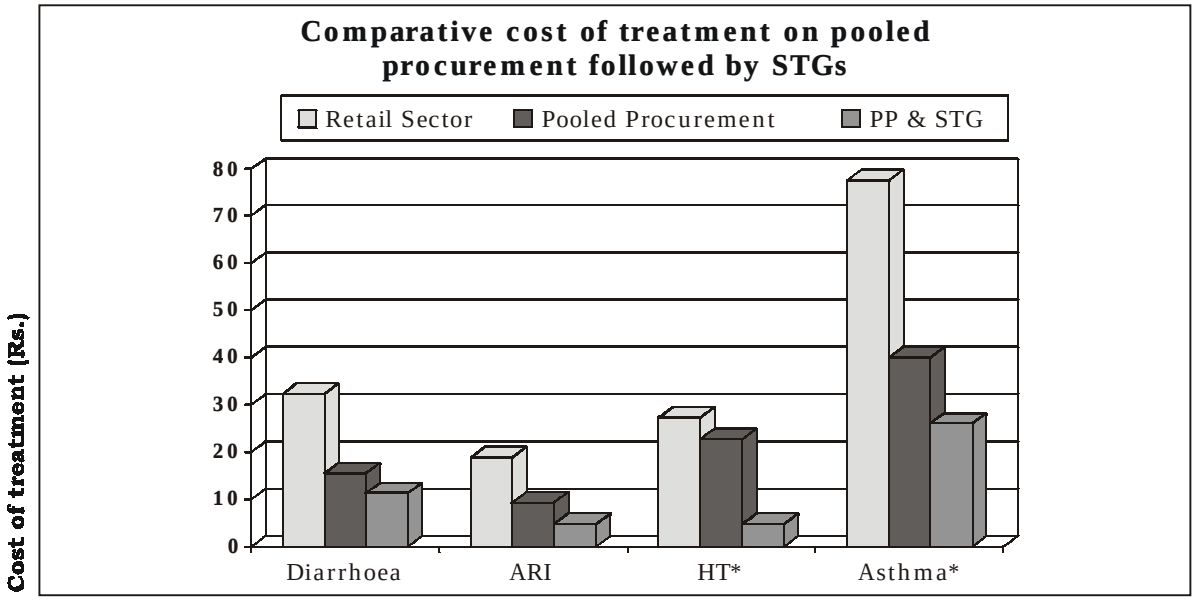
In the public sector too there have been some very good initiatives to buy quality drugs in bulk at the lowest rates.

Most impressive of these are the pooled procurement efforts of the governments of Tamil Nadu, Delhi State and Orissa. In addition they have affected considerable savings in terms of expenditures on drugs, increased availability of drugs at all levels of government health services, and in general advocated rational use of medicines by formulating standard treatment guidelines. The Tamil Nadu the process is also very transparent and the prices of finalised tender awards are on the web (see for instance at http://www.tnmsc.com/l1rate0304.doc). Table 5 gives an idea of the tremendous savings accrued to the Tamil Nadu government due to this pooled procurement. Table 9 and Graphs 1,2,3 further give an idea about such savings by the Delhi and Orissa State governments.

Table 9
Comparison of Prices of Drugs (in Rs. per Unit)
Drug Purchased at Competitive Prices (Rupees)

Drugs	Open tender	Pooled procurement	% cost reduction
Syr Amoxycillin	14.65	7.50	50
Tab Erythromycin (250 mg)	3.24	1.54	50
Tab Atenolol (50 mg)	0.42	0.17	60
Inj Ranitidine	1.87	1.63	12.50
Inj Diazepam	5.53	0.93	80

Graph 1
Savings in Costs of Treatment

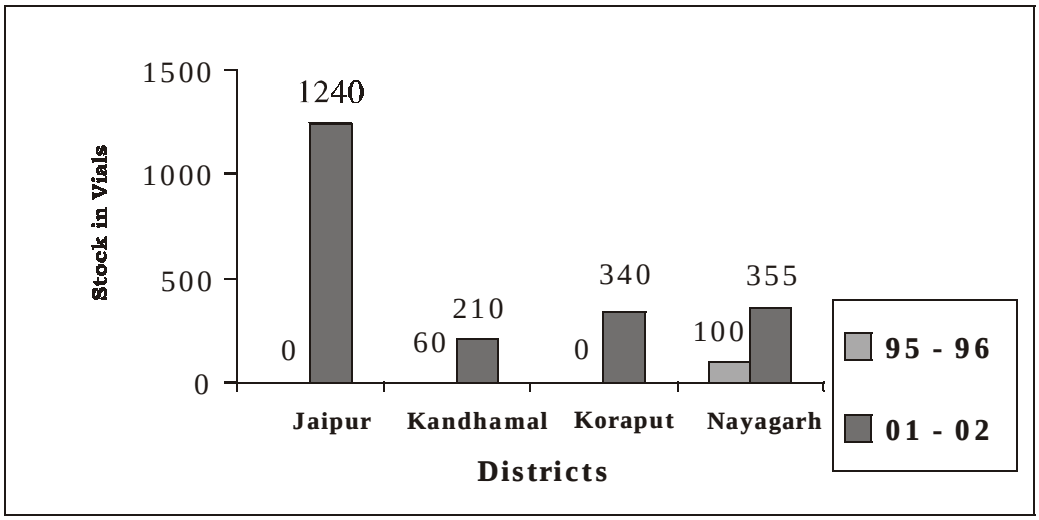


*** Cost of treatment for a fortnight**

Source for Tables 9 a & b: Bapna J S, P.53. in Bapna J S "Rational Drug Use and Economic Gains: The Delhi Experience" in The Medicines Scenario in India: Perceptions and Perspectives *edited by Banerji A, for Delhi Society for Promotion of Rational Use of Drugs, New Delhi (undated) and Dr Nirmal Gurbani (2004), DSPRUD, New Delhi.*

Similarly though not as dramatically, prices decreased and stock position of items increased in Orissa after the Drug Inventory Management System (DIMS). See bar charts below (Tables 10 and 11) for illustration. *(Source for tables, Orissa Government documents on DIMS).*

Graph 2
Comparison of Stock Position before and after Orissa DIMS:
Inj. Anti Snake Venom



**Source for Tables 10 and 11, Orissa Government documents on DIMS.*

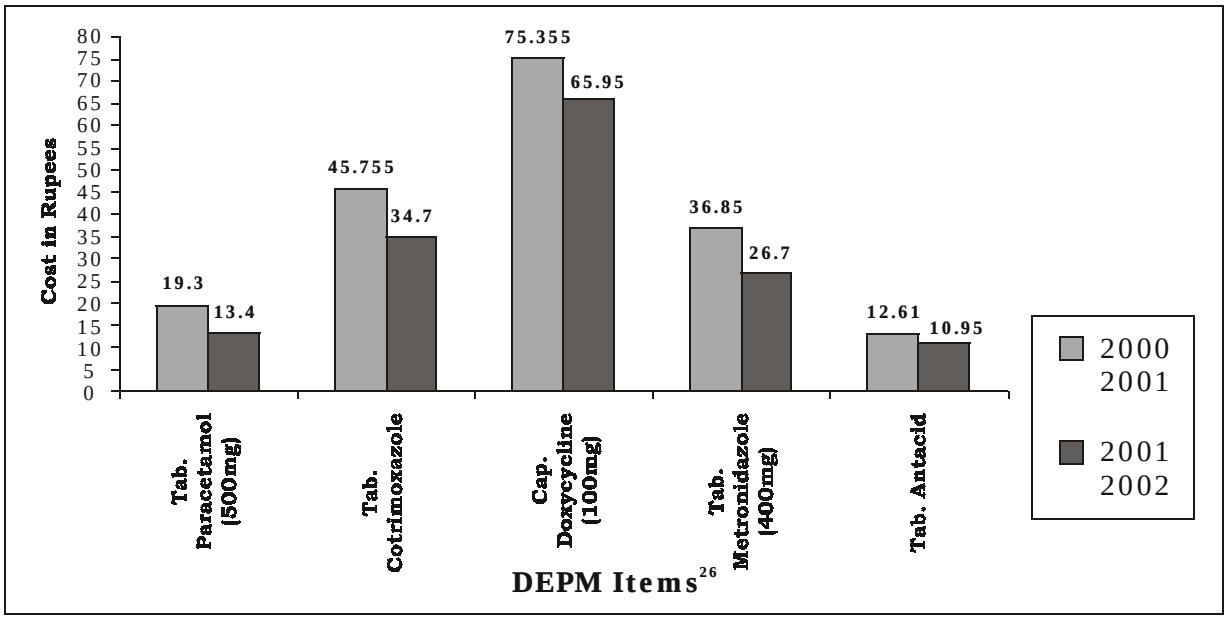
A few other state governments namely those of Rajasthan, Maharashtra, Haryana, Himachal Pradesh, Andhra Pradesh, Madhya Pradesh, Karnataka, Assam and Chhatisgarh have also taken steps to regularise their drug purchase list by making the focus on essential drugs and rational medicines and formulating standard treatment guidelines.

Mashelkar Committee Recommendations

The recommendations of the Mashelkar Committee (2003), if implemented, will help to curb spurious, substandard drugs. The Mashelkar Committee has recommended total overhauling of the drug control administration and has recommended a structure, almost like that of the US FDA, involving several divisions - a centralised regulator called the Central Drug Administration (CDA). This is a radical departure from the existing structure, which is a decentralised one as health and pharmaceuticals come under the concurrent list of the Constitution - to be looked at by both the Centre and the state. Obviously the move to break the nexus between drug companies and state FDA officials runs the risk of over centralising in a vast country like India. The Committee however has lost a good opportunity to recommend putting pricing policy and health related drug policy under the ambit of one single authority.

The Mashelkar Committee had toned down its earlier recommendations for death penalty to make offences of spurious drugs manufacturers 'cognisable and non-bailable'. The Government of India has nevertheless gone ahead and introduced a bill in the Parliament awarding capital punishment to those indulging in manufacture or sale of spurious drugs. One suspects that this was at the behest of the big manufacturers who are worried at the many 'me-too' copies, both genuine and fake. However, the Committee has not addressed the problem of unlimited profiteering and the presence of irrational and unscientific drugs. Restricting profit levels and the list of drugs that can be made in India to essential, scientific drugs could have considerably lessened the burden of testing and regulating. Are not irrational drugs a variety of spurious drugs? Are not high priced

Graph 3
Comparison Between Old and New Rates: Orissa DIMS[1]



[26] DEPM rates refer to Directorate of Export Promotion & Marketing –items reserved for the small-scale sector in Orissa.

drugs, killers as much as fake drugs –slow but eventually immiserating the patient?

Some Developments of 2004

Supreme Court Case

The Karnataka High Court gave a stay on that part of the pricing policy (PP 2002) that had to do with reducing the list of drugs under price control. The Government of India, and not surprisingly, all the leading drug industry lobbies of India, have appealed against the stay in the Supreme Court[27]. The All India Drug Action Network (AIDAN), LOCOST, Jana Swasthya Sahyog (JSS), and the Medico Friend Circle (MFC) have joined issue and have filed a series of affidavits in the matter, questioning the wisdom of the criteria for drug price control in Pharmaceutical Policy 2002 (PP 02); the policy will cause an increase, as we have indicated above, in the price of medicines and therefore have a long-term effect for the worse on the health of people, especially poor people. This litigation, with hearings slated for early 2004, is also occurring at a critical juncture when India's state of public health is still grappling with old diseases while new ones like HIV/AIDS, diabetes and cardiovascular problems have got added on to the disease burden. Complicating this issue is the impending regime of WTO/ TRIPS effective January 2005.

India, Patents Act, WTO/TRIPS, and EMRs

The changes being brought into the Indian patent Act 1970 will further erode the accessibility of the new drugs to the vast majority of the Indian people. It is now generally accepted that the Patents Act 1970 was the key to the Indian pharma industry, making India's legal regime on drugs instrumental in the growth of the large generic drug industry and low drug pricing by international standards. It did not recognise product patents for drugs (product patents prevent third parties from making, using, offering for sale, selling or importing for these purposes) but only process patents and monopoly rights were in the public domain. Through the process of reverse engineering, generic version of new drugs could be legally produced.

Since then, as part of its so-called WTO obligations, India has already partially 'complied' with TRIPS/WTO provisions by introducing amendments (in 1999 and 2002 and by the Patents Rules, 2003) by amending its Patents Act 1970. These amendments covered the following:

- extended the term of patent to 20 years (previously 7 years for drugs),
- expanded the definition of invention and the scope of patentability even as it abolished patents on plants, animals and micro-organisms,
- introduced license of rights, formulated a more stringent compulsory license formulation[28],
- introduced provisions for exclusive marketing rights, parallel importation, Bolar provision (as per this provision, is an act of making, constructing, using or selling a patented invention solely for obtaining regulatory approval under the laws of India or another country. This does not constitute an act of infringement –

[27] Namely SLP(C) 3668/2003 filed by Union of India asking for impugnment of the order of the Karnataka High Court dated 12.11.02. The latter order (in WP No 21618/2002 Lt. Col. (Retd) Gopinath and another versus the UOI) stayed the operation of that part of the Pharmaceutical Policy 2002 that affected drug price control. The Supreme Court while suspending the order of the Karnataka High Court has asked the Government of India to ensure that essential drugs do not go out of the price control – pending full hearing. Arguments presented in the case by AIDAN and others are summarized in LOCOST 2004, op.cit.

[28] Compulsory licenses are license granted by the State to commercially exploit a patented product/ process during the protected period on grounds of (a) public requirement not satisfied (b) high pricing. Recently - in early 2004 - the National Working Group on Patent Laws has identified nine situations under which compulsory licenses can be granted and has suggested these be incorporated in the third set of amendments to the Patents Act 1970.

that is, a small amount of raw material can be imported before its patent expiration so that consumers can have the competitive product available when the patent expires),

- introduced the burden of proof on the alleged infringer (to avail this provision, the patentee must first prove that the product is identical to the product directly obtained by infringing the patented process),
- introduced disclosure requirements for biological material (non-disclosure or wrong disclosure of source or geographical origin of a biological material used in the invention and anticipation of the invention through prior knowledge, oral or otherwise, within any local or indigenous community have been made additional grounds for opposition/ revocation) and HIV Provision.

The 2004 Amendment Agenda – the third such set of amendments since 1999 –– includes introduction of a Product Patent Regime, abolishes Pre-grant Opposition (opposition from concerned parties *before* granting the patent to the patent applicant), and Experimental Exceptions, and possibly acceding to data exclusivity provisions (data exclusivity provides for a period of protection during which test and clinical trial data of one company may not be relied upon by another company to obtain a marketing authorisation of the same drug). However these are matters of severe debate and one of the few instances where the efforts of public interest groups and the Indian drug manufacturers lobby like Indian Drug Manufacturers' Association (IDMA) converge. Dilution/abolition of pre-grant opposition has been severely opposed by the Indian drug industry (as represented by IDMA, IPA) so has the provision for exclusive marketing rights (EMRs).

An EMR gives a company exclusive marketing rights for a period of five years. Novartis was the first company to be given an EMR for a drug in India. The drug in question, Imatinib mesylate, once known as STI571, is sold by Novartis as "Gleevec" in the United States and as "Glivec" elsewhere. Novartis used its EMR in India to block anybody making its drug and equivalents – despite the local manufacturers in India making Glivec, an anti cancer drug, at a tenth of the price. Novartis is also resisting giving in to compulsory license for the drug in Korea despite efforts by NGOs and other interest groups[29].

Earlier, Natco, one of the manufacturers of the drug challenged the patent office's decision and filed a case in the Delhi High Court. The petition has also challenged the grant on another ground – the fact that Novartis is believed to have got its EMR on the basis of a patent application that was filed in 1998 for a new form of the drug, called the 'betacrystalline form', and not for an entirely new drug. Queering the pitch is the proviso that companies can be given EMRs only for drugs patented after January 1, 1995 and domestic pharma companies are challenging the patent office's decision on these grounds. The original imatinib mesylate patent dates back to 1993 in the West.

Litigation on the issue of EMR for the drug took a fresh turn in January 2004 with Novartis getting a stay from the Madras High Court restraining six drug companies from manufacturing and distributing imatinib mesylate. The six companies are Cipla, Sun, Ranbaxy, Hetero, Emcure and Intas and they have been restrained from the manufacture, sales, distribution, marketing and export of the generic version or chemical equivalent of Novartis' Glivec.

In other such instances, during September 2003, GlaxoSmithKline filed a case in the Delhi High Court against the Government's

[29] See http://www.cptech.org/ip/health/gleevec/

decision not to grant an EMR to GSK for its anti-diabetic drug rosiglitazone. A similar case has been filed in the Calcutta High Court, by Swiss company Hoffmann-La Roche, for the rejection of its EMR application for its anti-retroviral or anti-AIDS drug saquinavir. However, Wockhardt's topical antibacterial drug nadifloxacin or Nadoxin has been granted an EMR.

[As we go to the press the Cancer Patients Association of India has challenged the grant of exclusive marketing rights (EMR) through a writ petition in the Supreme Court of India. The Supreme Court has issued notice in the matter. The Petitioners have filed this petition in public interest under Article 32 of the Constitution of India on account of the violation of the right to health and equality of cancer patients suffering from Chronic Myeloid Leukaemia (CML).]

There is an increasing opinion in India that acceding to the EMR provision was a mistake. There is hardly any difference between an EMR and an exclusive patent.[30] In fact with an EMR, you get the benefits of a patent without detailed examination, and/or pre-grant opposition. The IDMA President has called it illogical, irrational and unconstitutional and has quoted in support a 1999 report of the Law Commission of India, which said that EMRs and patent rights go together, and cannot be separated. 'Without a clear patent right, there cannot be any product marketing exclusivity.'[31] (Editors Note: Appendix 1, at the end of the chapter, discusses suggestions for Patents Amendment Bill)

What Needs to be Done

In this chapter we have surveyed factors that impinge on the availability of essential drugs in India. What needs to be done to remedy the situation? The following policy measures are needed:

- Prioritising drugs available in India to essential drugs as per the Government's own NEML (2003) or the 13th Model List of Drugs of the WHO[32].
- Ensure adequate production of essential drugs.
- Critical role of the public sector to ensure national self-reliance and availability of essential drugs
- Weeding out all irrational and harmful medicines[33].

[30] "EMRs and Patents: Same Difference" by Rakesh Prasad, counsel to the Directorate General of Anti Dumping and Allied Duties at http://www.rediff.com/money/2004/feb/16guest1.htm

[31] At the IDMA Annual Meeting, 2003 quoted in IDMA Bulletin, Dec 31, 2003, Vol. XXXIV, No. 48.
At the same meeting, the keynote speaker from USA, William Haddad, initiator of the Drug Price Competition and Patent Restoration Act (Hatch-Waxman) and founder of the Generic Pharmaceutical Industry Association, pointed out that during the TRIPS discussions India was classified as a "lesser developed nation" (LDC) and suddenly by the time of Doha, India was excluded from the list of 49 LDCs that were given till 2016 to comply with. WTO. Haddad suggests that for the purposes of TRIPS alone, India claims its status as an LDC – galling though it may be to the India Shining lobby – and has become a major supplier of medicines to the third world. A suggestion seriously worth pursuing.

[32] For the 13th WHO Essential Drugs list see http://www.who.int/medicines/organization/par/edl/eml.shtml. For National Essential Medicines List (NEML) 2003 see http://www.expresspharmapulse.com/nedl.pdf

[33] One should add after Phadke (1998) the following concomitant steps also need to be taken: standardization of medical care starting with standard treatment guidelines; a comprehensive Rational Drug Policy that includes no unnecessary formulation presentations in terms of syrups, capsules and injections; a vaccine policy strictly guided by science of public health and prioritization of use of public money; a limited list of over the counter drugs to be available; promotion of drugs under only generic names with strict regulation of promotional activities of drug companies; strict guidelines of sponsorship, if at all, of symposia and other scientific meetings; mandatory disclosure of funding and potential conflict of interests in all research and publications; a limit on cross-practice; compulsory continuing medical education of doctors; improvement in medical education as well as medical education fee regulation; a systematic policy of research on non-allopathic drugs as well as a pricing and marketing policy for non-allopathic drugs.

- Price Control on all essential drugs marketed in India
- Introduction of Essential Drug Lists and Standard Treatment Guidelines especially in health facilities of the governments at the Centre and State followed by legal changes to enable production and marketing of only essential drugs in India (that is in both private and public sectors).
- Transparent Pooled procurement in all States as in Tamil Nadu and Delhi State Governments after assessing rational, essential drug needs (which has resulted in procurement of drugs for the public health facilities at a rate which is up to 2 per cent of the prices in the retail market!).
- Implementing the Mashelkar Committee recommendations without centralisation and bureaucratisation.
- Action on corruption at all levels of drug administration including in the drug industry
- Refusal to change the Indian Patent Act (1970) At the minimum level, no product patents on diseases of the national programme and more careful orchestration of the health needs of India, especially the poor, when amending the Patents Act again. Failing which enhancing scope of compulsory licensing.
- Transparent decision making in matters of EMRs, patents, data exclusivity, etc., keeping in mind the interests of the people of India.
- Medicine be available only under the generic name with company's name in parentheses.
- Compulsory continuing medical education of doctors.
- Strict control over promotional activities of drug companies.
- Universal Health Access and Health Insurance for every citizen of India by increasing the government's per capita expenditure on health[34].

Acknowledgements: In putting together this report, published/unpublished works have been freely borrowed especially that of LOCOST, SAHAJ, Anurag Bhargava and T Srikrishna. Sources have been credited as far as possible. Anant Phadke went painstakingly to edit the original effort for brevity as well as relevance to this volume on State of India's Health Services. Thanks also to Phadke and Ravi Duggal in sourcing some of the references. Inadvertent omissions are regretted and may be pointed out to S.Srinivasan at sahajbrc@icenet.co.in

[34] "...It may be asked, whether India has the resources today to give health care insurance to everybody. The answer is yes. We are already spending about 6% of our Gross Domestic Product (GDP) on health-care. But the state's share in only 21% of this expenditure. This share is lower than that seen even in Bangladesh (33%) and Pakistan (53%). In most developed capitalist countries, this share is 70 to 80% and even in the U.S. - the supposed heaven of private medical care, the state's share in total health-expenditure is 44%. ... the governments in Sri Lanka, Bangladesh, Pakistan ... spend a higher proportion for health-care than private health-expenditure, why can't the Indian government do this? The people are already paying 4.5% of GDP in the private sector. If the government spends 5% of GDP on health-care by almost quadruplicating its current health-expenses, then an additional special health-tax proportional to income, to meet the extra needs for a Universal Health Insurance can be justified. Instead of paying directly to the often exploitative private sector as is done today, people would be willing to pay a health-tax to the local government who could in turn pay the private practitioners as per negotiated, rational rate-structure. Thus without people having to pay more on health-care than what they are paying today, India can provide for expenses for a Universal Health Insurance of up to 9.5% of GDP. This much expense should suffice. Though higher in absolute terms, the health-expenditure in Japan, Germany, Canada, France is in the range of 4.5 to 9.5% of the GDP. What is needed in India is intensive public pressure on the Indian government to divert more resources towards health-care." (Phadke 1998, op.cit., chapter on "What Can be Done?")

Appendix 1
Suggestions for Patents (Third) Amendment Bill to Amend the Indian Patents Act 1970

Amit Sengupta

As per the provisions of the TRIPS agreement under the WTO, India is required to amend its Patent Laws to provide for a TRIPS compliant regime, and there has been extensive debate within the country about what the contours of India's Patent Laws should be. The 1970 Patents Act has served the country well, and was instrumental in development of the indigenous industry – *to a point where the Indian pharmaceutical Industry is the leader in the developing world*. It is thus imperative that any fundamental changes in the 1970 Patents Act need to be carefully examined, so as not to compromise the interests of people's health, and the interests of promoting a self-reliant indigenous Pharmaceutical Industry.

Despite diverse contentions about the impact of TRIPS compliant Patent Laws on domestic industry – especially in developing countries - there is a wide consensus that domestic laws, while being TRIPS compliant, need to make full use of "flexibilities" available in the TRIPS agreement. This was reiterated in unequivocal terms by the WTO Doha Declaration on TRIPS Agreement and Public Health (2001), which, *inter alia*, commented that countries have the sovereign right to enact laws that safeguard domestic interests, and clearly provided that the member countries had the right to protect public health and to promote access to medicines for all.

Experience with TRIPS since 1995

It needs to be underlined that a wide body of experience has accrued in a large number of countries since the TRIPS agreement came into force in 1995. Several economists of repute who otherwise are fully supportive of the free trade theory and the WTO (viz. Jagdish Bhagwati, Dani Rodrik, Michael Finger) have, of late, recognised the inherent inequity in the TRIPS agreement and some have even questioned the logic of incorporating TRIPS into the WTO system in the first place. Similarly, in its report of September 2002, the Commission on Intellectual Property Rights (CIPR) established by the Government of U.K has made a pointed reference to the likely adverse impact of the global enforcement of the new intellectual property regime on the cost and availability of medicines to developing countries and the need to use the mechanism of "compulsory licensing" to mitigate such impact.

The devastating HIV-AIDS epidemic across the globe, particularly in African countries, has served to focus on the inhuman conduct of global pharmaceutical MNCs who continue to sell drugs to treat HIV-AIDS at 20-50 times their actual cost by seeking shelter under laws mandated by the TRIPS agreement. In fact it was left to Indian companies like Cipla to offer these drugs at vastly reduced prices and thereby provide some succour to those affected by HIV-AIDS. The conduct of these MNCs has also led to an upsurge of public opinion the world over, including in the US and EU, questioning its rationale, particularly in the area of public health. Organisations such as the Medecns Sans Frontieres (Doctors Without Borders) have provided a powerful voice to this upsurge and soon became a global force contending the rationale of the new IPR regime. These developments ultimately resulted in the Doha Declaration on TRIPS Agreement and Public Health (November 2001) seeking to limit, to some extent, the damage done by the TRIPS agreement and its underlying philosophy.

These experiences of the last 10 years clearly call for a independent approach when India is poised to amend its Patent laws to make it fully "TRIPS compliant".

Safeguard National Interests

In pursuance of the necessity to make India's Patent Laws TRIPS compliant, the Indian Parliament has enacted two legislations through the Patents (Amendment) Acts of 1999 and 2002. In order to fulfil the conditions in the TRIPS agreement, a Third Amendment is now to be tabled in Parliament. Unfortunately, the Patents (Amendment) Bill of 2002 did not make full use of the flexibilities available in the TRIPS agreement, which were further emphasised in the Doha Declaration. It is necessary that the draft Patent Bill 2003 incorporate amendments that address the gaps in the Indian Patent Act 1970 (as amended by the Patent (Amendment) Acts of 1999 and 2002), so that we make full use of flexibilities available in TRIPS. It is also necessary to *press for a review of the TRIPS agreement itself – something that is mandated in the original agreement*, but has not been followed up. Such a review is necessary to address the imbalance in favour of developed countries inherent in the TRIPS agreement.

The NDA government had circulated the draft Third Patents (Amendment) Bill in 2003. The Bill could not be discussed in Parliament, because of the change in Government.

The draft Bill, was entirely inadequate in addressing domestic concerns relating both to health care and development of the indigenous industry. Further, it seeks to reverse salutary provisions in the original Patents Act of 1970 e.g. by further diluting the provision for "pre-grant opposition". The UPA Government is now poised to introduce the same Bill (drafted by the earlier NDA government) in the Winter session of Parliament. *Any hasty passage of the Bill, without an informed discussion, will not be in the larger interests of the country.*

Broad Areas of Concern

The broad areas which require further amendments in the Indian Patent Act 1970 (as amended by the Patents Act 2002) and the draft Patents Bill 2003 are as follows.

Patentable Subject Matter

The term "invention" should be reserved for a "new" product or process involving an inventive step and capable of industrial application". All three criteria, "novelty", "inventive step" and the quality of being "capable of industrial application", must be insisted upon. This is necessary in order to limit the number of applications and to discourage frivolous claims. The Report of the US Federal Trade Commission says that over one thousand patent applications are filed every day in the US, where such huge volumes have resulted in many frivolous claims being admitted. With the introduction of product patent in India from 1.1.2005 a similar situation is likely to arise, having a serious impact on our industrial economy, creating spurious monopolies for otherwise common products for which people will have to pay high prices.

What are not inventions (and thus not patentable)

The Indian Patent Act allows patenting of "micro-organisms" and "non-biological and microbiological processes". Patenting of these inventions are under mandated review by the WTO since 1999. In the absence of any decision, patenting of these inventions should not have been provided. Further, all life forms and research tools for biotechnology should also be excluded from scope of patentability. A host of developing countries, the African countries in particular, have agreed that life forms of all hue should be excluded from patentability and India has tacitly supported these countries. The draft Bill 2003 has also restricted the scope of exclusion from

patentability for computer programmes, and this needs to be remedied so that we do not encourage monopolies by the likes of Microsoft.

Compulsory Licensing

Compulsory Licensing is an instrument available in the TRIPS agreement to safeguard the legitimate interests of consumers by limiting the possibility of monopolies being created in different sectors. Unfortunately the Indian Act has not made full use of the flexibilities available in the TRIPS agreement in this regard. The Indian Act and the proposed amendment provides no scope for the issuing of a compulsory licensing in cases where, notwithstanding the offer of reasonable commercial terms and conditions to the patent holder by an enterprise, the patentee does not respond within a stipulated period of time. Countries like Brazil and China have passed legislations allowing compulsory licensing in such circumstances.

Export by a Licensee

The TRIPS agreement allows exports by manufacturers who produce through a compulsory licence. Unfortunately the Indian Act does not explicitly provide for this. This is of particular importance in the case of pharmaceuticals where Indian licensees can export drugs to the developing country markets at relatively lower prices, to the mutual benefit of both.

Transitional Arrangement and Mailbox

As per the TRIPS agreement, India has provided for the receipt of patent applications through a mailbox between 1.1.1995 to 31.12.2004. These applications are to be examined after 1.1.2005 and patents, if granted, would be effective from the latter date for a period of twenty years from the date of application. In all such cases if any production activity has been started by any enterprise during the transition period, then that enterprise should be allowed to continue production on payment of a nominal royalty to the patent-holder, after the patent has been granted, instead being accused of violating the patent. In the absence of such a provision there would be a spiraling rise in prices of patented products even when Indian companies would be in a position to produce these products at much lower costs. The recent case of the anti-cancer drug Glivec (where Novartis, after being granted a monopoly through an EMR has restrained six Indian companies from producing the drug and at the same time has hiked the price of the drug far above what was being charged by the Indian companies), points to many such occasions in the future.

Royalty payment

The quantum of royalty payable if a compulsory licence is issued should be explicitly stipulated within a range, say 4-5 percent, of the sales turnover at ex-factory price. This would ensure that costs of drugs produced through a compulsory licence remain within affordable limits and also prevent unnecessary litigation and delays in enforcing of such licences.

Pre-Grant Opposition

The TRIPS Agreement does not preclude the possibility of pre-grant opposition to Patents that are filed. There is no justification for the removal of the existing provision of pre-grant opposition from the Patents Act, as is being proposed in the draft Bill 2003. Many countries, including developed countries like Australia, Japan, Canada and UK provide for pre-grant opposition in their national laws.

SECTION 5
CONCLUSION

Conclusion: Reclaiming Public Health
An unfolding struggle for health rights and social change

Abhay Shukla

The Present Health System Crisis

'The existing state of public health in the country is so unsatisfactory that any attempt to improve the present position must necessarily involve administrative measures of such magnitude as may well seem to be out of all proportion to what has been conceived and accomplished in the past. This seems to us inevitable, especially because health administration has so far received from governments but a fraction of the attention that it deserves in comparison with other branches of governmental activity ...we have provided for the establishment of a health organisation which will bring remedial and preventive services within the reach of the people, particularly of that vast section of the community which lies scattered over the rural areas and which has, in the past, been largely neglected from the point of view of health protection on modern lines.'

- Bhore Committee report, 1946

'*...there is no gainsaying the fact that the morbidity and mortality levels in the country are still unacceptably high. These unsatisfactory health indices are, in turn, an indication of the limited success of the public health system in meeting the preventive and curative requirements of the general population. ... It would detract from the quality of the exercise if, while framing a new policy, it were not acknowledged that the existing public health infrastructure is far from satisfactory. For the outdoor medical facilities in existence, funding is generally insufficient; the presence of medical and para-medical personnel is often much less than that required by prescribed norms; the availability of consumables is frequently negligible; the equipment in many public hospitals is often obsolescent and unusable; and, the buildings are in a dilapidated state. In the indoor treatment facilities, again, the equipment is often obsolescent; the availability of essential drugs is minimal; the capacity of the facilities is grossly inadequate, which leads to over-crowding, and consequentially to a steep deterioration in the quality of the services.*'

- National Health Policy, 2002

These excerpts from two major official documents, separated by fifty-six years of 'development' of public health in India, give us some idea of how public health has fared in half a century of post-Independence India, and where it stands today. It is in such a setting that the authors contributing to this report have critically analysed, from a pro-people perspective, and from different angles and in various contexts, the state of health care in India. It was considered neither possible nor desirable that this report be cast in a monolithic framework; rather the differing shades of opinion and emphasis of various authors add to the richness of its analysis, and capture a diversity of critical opinion. This notwithstanding, certain broad contours about the 'State of health care in India' seem to emerge from the broad panorama covered by this report, and an attempt to briefly sketch some of these contours will be made in this sub-section.

One theme that emerges clearly is that the objective of universal access to quality health care, envisaged over half a century ago at the dawn of Independence, remains unrealized. Public health has effectively remained a low priority for the Indian state in terms of financing and political attention. Consequently, there has been a major and growing divergence between the policy

rhetoric (Bhore committee, Alma Ata declaration) and actual implementation. This has contributed to the slow and inadequate improvement in health of the population, in the period of over half a century of development of health systems in India.

Closely related to this, and compounding this situation has been a Techno-managerial model of health care inspired by the West, with an inability to evolve effective indigenous models and appropriate technologies, or to effectively integrate modern and indigenous systems of medicine (in contrast to China for example). The system of Health planning and decision making has been highly centralized and top-down with minimal accountability, little decentralized planning or scope for genuine community initiatives; the failure of most State supported community health worker schemes being one of the most striking consequences of this . The family planning programme has been the most dominant amongst various externally imposed priorities, attempting to reduce the poor as a substitute to reducing poverty, drawing scarce resources away from public health, distorting the public health system and alienating it from the people.

In this situation of inadequate and top-down development of public health, the impact of globalisation-liberalisation has led to an ultimate denouement; there has been a retreat from even the nominal universal health care access objectives. Guided by prescriptions from agencies such as the World Bank, public health care is being further constricted to certain 'cost effective' preventive-promotive services and selective interventions such as Family Planning, paralleled by spiraling and unregulated expansion of the private medical sector.

This phase has witnessed staggering health inequities, resurgence of communicable diseases and an even more unregulated drug industry with spiraling drug prices, adding up to the current crisis in public health. Along with the retreat from the goal of universal access, special health needs of women and children have become further sidelined or inadequately addressed, while important concerns like violence as a public health issue remain effectively unrecognised and unaddressed.

This situation of crisis seems to be an appropriate time to place the goal of universal access to appropriate health care on the agenda, and to rebuild a social consensus on the high priority that must necessarily be given to public health. While developing such initiatives, we can draw upon the legal and constitutional provisions for the Right to Health Care, the declared yet never fulfilled health entitlements of the people of this country. The time has come to demand closing of the gaps between entitlements and reality, while simultaneously redefining and expanding the horizon of entitlements; and to reclaim public health as an essential, universal good in the framework of Human rights.

The Medium Term Future Goal

Reclaiming public health, demanding a system for universal access to appropriate health care, in a rights based framework

We thus find ourselves at a crossroads: health care can be considered a commodity to be sold, or it can be considered a basic social right. It cannot comfortably be considered both of these at the same time. This, I believe is the great drama of medicine at the start of this century. And this is the choice before all people of faith and good will in these dangerous times.

- Paul Farmer

Given the context described in detail in this report, today we face a situation that presents both a historic crisis and a unique opportunity. On one hand, the public health system is in a crisis; on the other hand, the new National Government is forced to accept that certain measures to strengthen public

health will have to be taken, in order to alleviate the situation. This opens certain spaces for pro-people civil society organizations to intervene in shaping of Public health policy at various levels.

A Contention Between Two Paradigms

As we attempt such intervention, we may keep in mind that while the health system is usually an instrument of maintaining the hegemony of the dominant social order, it can also be an arena for asserting people's claims for services and accountability, and hence people's power. In this context, in the arena of health care, *today two competing paradigms confront each other.* The ruling paradigm may be characterised as *'Health care as commodity / health care as safety net'*. In this paradigm, citizens should generally purchase health care as a commodity (mostly from the private medical system) and the role of the state is to only provide rudimentary preventive services, and some elementary health care to the poorest sections of the population, who may not be able to afford health care in the market. It may be noted that *within this paradigm the dominant mode is the commodification of health care,* and the safety net relates only to the exceptions, to certain 'non-marketisable' preventive services (e.g. immunization, surveillance) and concerning the most indigent section of the population, who would be completely incapable of accessing services in the market. Profit driven, often exploitative and irrational marketised care is the *'real face'* while the safety net is the mask, which we are supposed to be gullible enough to perceive as a *'human face'*; this, in a nutshell, is 'Liberalisation with a human face' in the health sector. Of course, this is a somewhat idealized description of the ruling paradigm, which in practice today is unable to provide the 'safety net' *even for the poorest,* whom it is nominally concerned about. The dominant paradigm, whose nature and effects are critically analysed throughout this report, is imposed with impressive 'technical' arguments such as cost-efficiency and macro-economic considerations, which are presented with an air of 'neutrality', though their effects in the health sector, in terms of suffering and lost lives, have been devastating in scale and depth –

The big bankers of the world, who practice the terrorism of money, are more powerful than kings or field marshals, even more than the Pope of Rome himself. They never dirty their hands. They kill no one: they limit themselves to applauding the show.

Their officials, international technocrats, rule our countries: they are neither presidents nor ministers, they have not been elected, but they decide the level of salaries and public expenditure, investments and divestments, prices, taxes, interest rates, subsidies, when the sun shines and how frequently it rains. However, they don't concern themselves with the prisons or torture chambers or concentration camps or extermination centres, although these house the inevitable consequences of their acts. The technocrats claim the privilege of irresponsibility: "We're neutral" they say.

- Eduardo Galeano

Confronting this ruling paradigm is the emergent, people's paradigm of *'Health care as a Human Right'*. The human rights approach to health is of course not novel, since it had been implicit in various community-based and alternative approaches to health care during the last few decades. But with the debilitation and 'internal demolition' of the public health sector, and wholesale 'takeover' by the private medical sector especially in the 'lost decade of liberalisation' of the 1990s, the need to assert the undeniable responsibility and public accountability of the state for health care has become imperative and urgent, leading to the current relevance of an explicit human rights approach to health. Given the deepening crisis in public health, the coming period is likely to see a growing public contention between these two paradigms. As Paul Farmer has noted, these two paradigms cannot

comfortably coexist with each other, and they will have to be publicly debated, while definitive choices will have to be made. Following on this it may be submitted that a task before public health academics, pro-people health professionals, health activists, people's movements and developmental organisations is to *strongly and unequivocally assert the position, that Health care is a Human Right* in all public platforms and through all means of mobilization available. As in other social sectors, such assertion can lead to widening popular support for this position, providing the basis for a people's counter-vision to emerge, challenging the dominant paradigm.

Some Policy Objectives to Work Towards

With this perspective, it may be suggested that a policy goal we can work towards is establishment of a system for *Universal access to appropriate, quality health care as a right*. Concretising this goal will of course require considerable debate within the health movement, and documents such as the People's Health Charter may provide a broad framework for such discussions. A complex and difficult process of social mobilisation, policy debate and shaping of political will would be required to make such a situation even partly a reality. As mentioned above, it would not be just a narrow 'demanding of existing entitlements' but would also require a broader interpretation of health rights, with a progressive redefining of entitlements. It may be suggested that we would need to work for some of the following objectives (a demonstrative, not exhaustive list), in order to move towards achieving this larger goal:

- First and foremost, a considerably strengthened, accountable and reoriented public health system. Such a rejuvenation of the public health system would require changes at levels of policy, structure, programmes, and processes; several of such changes that are required have been pointed out in various chapters of this report. Such strengthening should ensure adequate infrastructure, humanpower, services and supplies at various levels, restoring the basic functionality of the system and rebuilding public confidence. However, such rejuvenation would not be possible without *bringing the public to the centre of the public health system*. Mechanisms for public accountability would need to be put in place (see below), along with reorientation of staff at various levels to rebuild their motivation and responsiveness.
- The base of strengthened public health would need to be a framework of comprehensive Primary Health Care including Community health workers in every habitation, much more functional and accountable Primary health centres and First referral units, combined with a range of appropriate preventive and promotive activities. The indispensability of Community health workers (Chapter 5) has been noted time and again, yet the need for strong community anchoring, flexibility and local evolution of diverse models, emphasis on empowering women, role of community representation and demand generation by the CHW, and hence a strong, equitable (not top-down) linkage with the public health system need to be considered while developing these programmes. This would need to be accompanied by a significant degree of genuine decentralisation of planning (which presupposes decentralisation of finances and power, not just responsibility), and evolving options relevant to various local situations, while adhering to the broad principle of universal and equitable access.
- Linked with such strengthening of the public health system, to institutionalize accountability would require a legal and constitutional framework to assure health services as a Right. The definition of 'essential services' i.e. the range of services that

would be ensured for all citizens as a legal entitlement, has been an issue of severe political contention in all countries wherever the 'universal access package' has been defined. Once a legal right to health care is considered, the same tussle may be expected to take place in India, and the task of the health movement would be to make sure the range of services is as comprehensive as possible, and to ensure that the services required by various marginalized sections and groups with special needs are definitely included.

- The above processes would obviously necessitate mechanisms for substantially raising public finances for the public health system, through general taxation along with various forms of special taxation and cesses for health security. Corporations and employers in both organized and unorganized sectors could be required to contribute substantially to the general health system, even as their employees including unorganized workers receive good quality health care coverage from a strengthened health system. Ending subsidization of the private medical sector and effectively taxing this sector, especially its upper end; a special health security cess on all financial transactions above a certain level; and preferential taxation of industries with negative health impacts are some other measures that have been suggested. As a form of cross-subsidisation, Universal social insurance with premiums being integrated with the taxation system, may be seriously considered (Chapter 12). However, there have to be mechanisms to ensure that the significant proportion of the population that is poor, and already pays indirect taxes, is exempted from such premiums. At the same time, in a universal system, the well-to-do sections would need to be brought under its ambit comprehensively and effectively. Since insurance is based on the principle of cross subsidization, with the well subsidizing the sick, and the rich subsidizing the poor, any system of insurance that only targets the poor cannot be genuinely effective. Targeted approaches will not work, since a health system only for the poor usually lands up becoming a poor health system.
- Specific Health care requirements of various groups with special needs – such as women, children, and elderly persons – would need to be met through sets of special measures, sensitively delivered by the general health system. A range of such measures have been described in chapters 6 and 7 of this report. Women's health will have to be conceptualized and addressed in a framework larger than reproductive health, reaching women in all stages of the lifecycle, while services for the entire range of women's health issues are integrated with an upgraded general health system. To give justice to reproductive health itself, it will have to be saved from the clutches of the Family Welfare programme, and all coercive measures for population control should be regarded as serious human rights violations (Chapter 9) and terminated. In the context of children's health and nutrition, ICDS will require universalisation, enhanced funds and staffing support, systematic linkage with the health care and education systems, and a much greater role to the community. Concerning health care, children, perhaps more than any other population group, require a well functioning health system at all levels, from community health workers to tertiary hospitals; this system would need to be attuned to meet the special needs of children.

Important currently unaddressed areas such as Violence against women would need a range of measures integrated with the public health system as detailed in Chapter 8.

- Specific major health problems, both communicable diseases such as TB and HIV-AIDS, and non-communicable health issues such as mental health would need to be addressed through programmes closely integrated with a robust comprehensive health system, as detailed in Chapter 4. These programmes integrated with the comprehensive system could subsume and replace the current selective, vertical programmes. Concerning communicable disease control, the emphasis would need to be on social-ecological methods appropriate to various diseases and situations, with involvement of communities in planning and implementation, which are presently major gaps.
- Progressively bringing the private medical sector under social regulation would be essential for realization of health rights in any meaningful manner. A first step in this direction would consist of legally and organizationally ensuring that this sector meets minimum standards, follows standard treatment guidelines, and observes ceilings on prices of essential health services. While such measures would be resisted by much of the private medical profession, there may be sections of rational doctors who could participate in the formulation of standards and guidelines, and could promote self-regulation. However, paradoxically, two extreme ends of the spectrum in private medical care – the Luxury tertiary medical sector at one end, and the low-cost, completely unqualified rural practitioners (often termed 'quacks') at the other end, may both try to totally escape the net of regulation. The former, because it would never agree to observe ceilings on costs, and the latter because it may not be able to meet minimum quality criteria. However, the former may be heavily taxed and restricted to catering to a very narrow, high income clientele, while the latter could be replaced in rural areas over a period of time, by well-trained and equipped community health workers linked to the public health system.

  As a next step, private medical facilities that have demonstrated that they follow minimum standards and treatment guidelines may be progressively brought under the umbrella of a Universal access system and may be contracted by this publicly regulated system to provide services, while the recipient of care is not required to pay while receiving these services.
- Much more effective public health support to indigenous healing systems is required, including active research on areas such as community based evaluation of indigenous healing methods and synergistic combination with modern medicine. The level of public funding for ISM institutions, both for care and research would need to be substantially increased to make this possible.

  The present paradoxical situation where a large proportion of non-allopathic doctors routinely and mainly practice allopathy needs to be addressed, with a view to ensuring rational and accessible care to all. One option is to offer additional training in rational use of modern medicine for Primary health care to non-allopathic practitioners who want to practice allopathy at the primary level; similarly allopathic doctors may be encouraged to opt for additional training such as in Basic Ayurveda / Basic herbal medicine, to practice certain basic elements of these healing systems. The

emphasis would need to be on integration of systems and creation of 'Basic doctors' who can provide a range of appropriate care especially at the primary level.

- Ensuring access to essential drugs in a rights based framework, both in form of ensuring availability of the range of essential drugs free of cost in public health facilities, and stringent price control by inclusion of all essential drugs in the DPCO, are objectives to work towards in the immediate future. Promotion of generics, effective drug quality control and elimination of irrational formulations and combinations are issues already on the agenda. With India moving towards becoming WTO compliant, the demand to keep essential drugs and drugs related to major public health problems outside the purview of TRIPS regulations can attract broad popular support, with the potential of becoming a flashpoint issue to oppose the current framework of hegemonic globalisation.
- Operationalising accountability and redressal mechanisms to ensure regular civil society monitoring and inputs at various levels (village / block / district / state / national), which would be the concrete form of the public re-entering and reclaiming the public health system. Panchayati Raj institutions, complemented by various community based organisations including women's groups could play a key role in ensuring accountability of the health system. If a community anchored village worker programme is developed, the health worker supported by a village health group could play a role in ensuring improved utilization and accountability of services. At the same time, an effective redressal system would be required to deal with complaints and denial of health care in various forms through responsive, time bound mechanisms.

A genuine concern may be raised, as to whether it is realistic to expect all these, and other similar changes to materialize in the present larger socio-political scenario. There is no guarantee that the state and the political system will respond to demands and assertions of health rights, howsoever justified and popularly supported they may be. Each of the changes mentioned above would require protracted, sustained efforts. Given this scenario, what can, and should be attempted, is to strongly assert people's Right to health care, while presenting a powerful alternative vision of a pro-people health system, through various forms of mobilisation and political action. If this gains broad and sustained popular support, the system is likely to respond and to yield health rights in certain form. Even if partial, these can become the basis for extension of rights, by further mobilisation and struggle, since rights naturally lend themselves to extension and expansion. A large, long-term vision can guide small, yet definite advances in the short term; the Rights approach allows us to link the two. However, at some point of time the system may reach its limits of responsiveness, and may stonewall further demands. Such a scenario is likely, relating not to health rights alone, but regarding an entire range of social and economic rights, due to the congealing of powerful vested interests at national and transnational levels. Yet if by the time such a juncture is reached, the large majority of social opinion is in favour of a radical restructuring of society in order to enable popular aspirations to be met, and these popular forces are organized in a coherent form, then the stage may be set for larger transformation.

The Long Term and Larger Vision

Linking the struggle for health rights to the struggle for a spectrum of rights, with a vision of systemic change

"Should medicine ever fulfil its great ends, it must enter into the larger political and social life of our time; it must indicate the barriers

which obstruct the normal completion of the life cycle and remove them."

- Rudolf Virchow

History says, Don't hope
On this side of the grave,
But then, once in a lifetime
The longed for tidal wave
Of justice can rise up
And hope and history rhyme.

- Seamus Heaney

Can the goal of 'Health for All' can be achieved in the present socio-economic system, in the context of systemic exploitation responsible for massive poverty and structural inequities, in the broader setting of large scale global expropriation, mediated by trade and facilitated by global financial institutions? One answer would be, 'Health for All', in its fullest and most humane sense – requiring, among other conditions, comprehensive nutritional and food security (linked to livelihood security), universal access to safe drinking water and sanitation, provision of healthy housing and local environments, universal healthy working conditions and a safe general environment, access to health related education and information for all, and an equitable, gender-just social milieu, free from violence - should remain our larger vision. While definite progress can be made towards achieving these goals in the present socio-economic situation, this is unlikely to be achieved in entirety within the globally defined, economic and social framework prevailing in India today.

The achievement of a strengthened public health system, which is more accountable to ordinary citizens, is a potentially achievable goal to fight for within the existing system. Similarly, the health movement must lend it strength and voice to movements for improving health related entitlements such as nutritional services and food security, clean drinking water, sanitation and safer environmental and working conditions, which may be achieved to certain extent. Such struggles can lead to some concrete improvement in the situation of the working people, and of various deprived and marginalized sections of society. It can also be one channel for people to assert their strength, by demanding that public institutions work for them effectively. This can become one of many arenas of public organization and mobilisation, of assertion of people's power. In this broader context, the *'Right to Health care'* and certain other health related rights are potentially at least partially achievable in the current social framework.

However, achievement of the *'Right to Health'* for all, in its fullest comprehensive sense**,** which constitutes our larger vision, is inextricably linked with larger social transformations. Hence the struggle for public health, in its deepest sense as envisaged by Virchow, necessitates that health activists also engage with such a larger vision and broader struggles.

Keeping this in mind, the struggle for health rights must move on to link with several other struggles for the rights to food, water, education, housing, livelihood and social justice in various forms, not only because these rights are extremely germane to the improvement of health, but also because the struggle for health rights must form one strand of a much larger struggle to challenge the dominant social order. Establishing people's Right to health care, even in a partial form, may be one of the platforms for developing people's awareness and strength, and for beginning to shape certain incipient models of the future within the present. But moving further, a broader movement needs to take shape, to present coherent alternatives in myriad spheres of life, to give people capacity and hope, to challenge the dominant system, and to nurture the tender saplings of the future, even in the harsh world of today. Only such a movement can also dream of replacing the current unhealthy and inequitable socio-economic system, by one that is far more just, humane and healthy, in the world of tomorrow

SECTION 6
STATISTICAL APPENDIX

APPENDIX
STATISTICAL TABLES

Compiled by : **Prashant Raymus** from CEHAT Database

1.1: Crude Birth Rate: All India (per 1000 population)

State/Year	1981			1986			1991		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Andaman & Nicobar	34.0	35.5	22.7	25.5	27.0	20.6	20.0	21.5	15.2
Andhra Pradesh	31.7	32.7	27.5	31.6	32.4	28.7	26.0	26.5	24.4
Arunachal Pradesh	NA	32.1	NA	40.2	40.7	33.9	30.9	31.6	24.0
Assam	33.0	33.8	23.2	34.7	35.5	24.8	30.9	31.7	21.3
Bihar	39.1	39.7	33.9	36.5	37.2	29.8	30.7	31.3	25.5
Chandigarh	24.6	32.9	23.4	23.7	29.6	23.2	13.9	19.2	13.5
Chattisgarh	-	-	-	-	-	-	-	-	-
Dadra & Nagar Havel	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delhi	26.9	36.0	25.8	29.5	35.9	29.0	24.7	30.2	24.2
Goa,Daman & Diu	15.5	16.3	13.2	20.2	19.9	20.8	16.8	16.7	16.9
Gujarat	34.5	36.1	29.8	32.2	32.9	30.8	27.5	28.2	25.9
Haryana	36.5	37.8	29.6	35.3	36.9	29.6	33.1	34.7	27.2
Himachal Pradesh	31.5	32.4	17.3	30.6	31.3	20.0	28.5	29.2	18.6
Jammu & Kashmir	31.6	33.9	21.4	33.4	35.6	25.4	NA	NA	NA
Jharkhand	-	-	-	-	-	-	-	-	-
Karnataka	28.3	29.2	25.7	29.0	29.9	26.8	26.9	27.9	24.0
Kerala	25.6	26.0	23.5	22.5	22.4	23.0	18.3	18.4	18.1
Lakshadweep(I)	NA	29.7	NA	32.1	37.0	26.8	27.1	30.0	23.8
Madhya Pradesh	37.6	38.8	31.4	37.2	39.0	30.1	35.8	37.3	29.7
Maharashtra	28.5	30.4	24.5	30.1	31.7	27.4	26.2	28.0	22.9
Manipur	26.6	26.8	24.4	25.7	27.4	20.2	20.1	20.7	18.0
Meghalaya	32.6	35.0	18.5	35.4	38.3	21.7	32.4	35.4	18.7
Mizoram	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nagaland	NA	NA	NA	25.2	26.6	18.6	18.5	20.4	10.1
Orissa	33.1	33.4	29.3	32.5	33.2	26.8	28.8	29.6	21.6
Pondicherry	21.7	22.8	14.7	22.5	23.4	21.8	19.2	20.5	18.1
Punjab	30.3	30.8	28.5	28.7	29.0	27.6	27.7	28.5	25.6
Rajasthan	37.1	38.3	31.2	36.4	37.9	29.8	35.0	36.0	30.3
Sikkim	31.0	32.2	26.6	32.1	33.8	24.4	22.5	24.2	14.4
Tamil Nadu	28.0	29.7	23.9	23.8	24.1	23.1	20.8	20.8	20.8
Tripura	26.4	27.6	14.8	28.5	29.1	22.4	24.4	25.4	15.5
Uttar Pradesh	39.6	40.8	31.5	37.5	39.1	30.7	35.7	37.2	29.0
Uttaranchal	-	-	-	-	-	-	-	-	-
West Bengal	33.2	37.0	20.0	29.7	33.5	20.1	27.0	30.3	18.5
All INDIA	**33.9**	**35.6**	**27.0**	**32.6**	**34.2**	**27.1**	**29.5**	**30.9**	**24.3**

Sources: Health Information of India,CBHI,GOI, respective years

Note: NA - not available; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent state

(Cont...)

(Cont...) **1.1: Crude Birth Rate: All India (per 1000 population)**

State/Year	1996			1998			2000		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Andaman & Nicobar	18.5	19.1	16.8	17.7	18.0	16.8	19.1	19.0	19.3
Andhra Pradesh	22.8	23.5	20.6	22.4	22.8	21.1	NA	21.7	NA
Arunachal Pradesh	21.9	23.0	10.4	22.5	23.3	13.6	NA	23.1	NA
Assam	27.6	28.9	20.7	27.9	28.7	20.2	NA	27.9	NA
Bihar	32.1	33.1	23.6	31.1	32.1	23.1	NA	32.8	NA
Chandigarh	17.5	20.9	17.2	17.9	21.3	17.5	17.5	18.9	17.3
Chattisgarh	-	-	-	NA	24.5	NA	NA	29.2	NA
Dadra & Nagar Havel	28.9	29.5	22.7	34.1	23.4	23.4	34.9	35.9	24.0
Delhi	21.6	25.5	21.1	19.4	20.9	19.3	20.3	21.4	20.1
Goa,Daman & Diu	14.4	15.5	13.0	14.3	14.6	14.0	NA	14.3	NA
Gujarat	25.7	26.9	23.0	25.5	27.0	22.2	NA	26.8	NA
Haryana	28.8	30.1	24.1	27.6	28.8	23.3	26.9	28.0	23.0
Himachal Pradesh	23.0	23.5	17.1	22.6	23.0	17.0	22.1	22.5	16.9
Jammu & Kashmir	NA	NA	NA	NA	NA	NA	19.6	20.5	16.5
Jharkhand	-	-	-	-	-	-	NA	28.8	NA
Karnataka	23.0	24.2	20.3	22.0	23.1	19.4	22	23.3	19.1
Kerala	18.0	18.0	17.9	18.3	18.3	18.2	17.9	18.0	17.5
Lakshadweep(I)	23.4	23.8	23.1	23.0	23.5	22.3	26.1	27.6	24.6
Madhya Pradesh	32.3	34.2	23.0	30.7	32.1	23.1	31.2	33.4	23.5
Maharashtra	23.4	24.0	21.0	22.5	23.6	20.8	20.9	21.4	20.3
Manipur	19.6	20.6	17.1	19.0	19.9	16.7	18.3	19.1	16.2
Meghalaya	30.4	33.2	16.3	29.2	31.8	15.6	28.5	31.0	15.3
Mizoram	NA	NA	NA	15.8	18.1	13.1	NA	19.2	NA
Nagaland	NA	14.5	14.5	NA	NA	11.9	NA	N.A.	12.2
Orissa	27.0	27.7	21.3	25.7	26.4	20.9	24.3	24.9	20.1
Pondicherry	18.1	20.7	16.3	18.2	18.3	18.1	NA	18.4	NA
Punjab	23.7	25.2	19.1	22.4	23.7	18.5	21.5	22.7	18.5
Rajasthan	32.4	34.0	25.1	31.6	33.1	24.7	31.2	32.8	25.0
Sikkim	20.0	20.3	11.3	20.9	21.2	13.5	21.8	22.1	14.8
Tamil Nadu	19.5	20.0	18.4	19.2	19.7	18.1	19.2	20.0	18.0
Tripura	18.4	19.2	14.2	17.6	18.2	14.8	16.5	17.0	14.0
Uttar Pradesh	34.0	35.0	28.0	32.4	33.4	27.2	32.8	34.0	27.2
Uttaranchal	-	-	-	-	-	-	NA	24.6	NA
West Bengal	22.8	25.3	16.0	21.3	23.4	15.2	20.6	23.0	14.0
All INDIA	**27.5**	**29.3**	**21.6**	**26.5**	**28.0**	**21.1**	**25.8**	**27.6**	**20.7**

Sources: Health Information of India,CBHI,GOI, respective years

Note: NA - not available; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent state

1.2: Infant Mortality Rates: All India (per 1000 live births)

State/Year	1981			1986			1991		
	Total	**Rural**	**Urban**	**Total**	**Rural**	**Urban**	**Total**	**Rural**	**Urban**
Andaman & Nicobar	NA	NA	NA	NA	NA	NA	30.0	31.5	23.0
Andhra Pradesh	86.0	93.0	52.0	82.0	87.5	59.0	73.0	77.0	56.0
Arunachal Pradesh	NA	NA	NA	NA	NA	NA	64.5	67.1	27.2
Assam	106.0	107.0	76.0	109.0	111.0	69.0	81.0	83.0	42.0
Bihar	118.0	124.0	60.0	101.0	104.0	68.0	69.0	71.0	46.0
Chandigarh	NA	NA	NA	NA	NA	NA	35.3	32.2	35.7
Chattisgarh	-	-	-	-	-	-	-	-	-
Dadra & Nagar Haveli	NA	NA	NA	NA	NA	NA	68.0	68.0	0
Delhi	NA	NA	NA	NA	NA	NA	42.7	69.4	39.8
Goa,Daman & Diu	NA	NA	NA	NA	NA	NA	20.8	25.4	11.7
Gujarat	116.0	123.0	89.0	107.0	124.0	66.0	69.0	73.0	57.0
Haryana	101.0	108.0	52.0	85.0	91.0	58.0	68.0	73.0	49.0
Himachal Pradesh	71.5	71.7	64.5	87.9	90.1	41.1	74.6	76.4	38.2
Jammu & Kashmir	71.5	75.9	41.1	81.5	86.0	58.1	NA	NA	NA
Jharkhand	-	-	-	-	-	-	-	-	-
Karnataka	69.0	77.0	45.0	73.0	82.0	47.0	77.0	87.0	47.0
Kerala	37.0	40.0	24.0	27.0	28.0	20.0	16.0	17.0	16.0
Lakshadweep(I)	NA	NA	NA	NA	NA	NA	43.8	66.7	11.9
Madhya Pradesh	142.0	152.0	80.0	118.0	124.0	82.0	117.0	125.0	74.0
Maharashtra	79.0	90.0	49.0	63.0	73.0	44.0	60.0	69.0	38.0
Manipur	NA	NA	NA	NA	NA	NA	21.7	22.1	20.0
Meghalaya	NA	NA	NA	NA	NA	NA	57.0	61.5	18.3
Mizoram	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nagaland	NA	NA	NA	NA	NA	NA	6.6	7.4	0
Orissa	135.0	140.0	68.0	123.0	127.0	75.0	124.0	129.0	71.0
Pondicherry	NA	NA	NA	NA	NA	NA	21.2	21.8	20.7
Punjab	81.0	88.0	51.0	68.0	72.0	55.0	53.0	58.0	40.0
Rajasthan	108.0	118.0	53.0	107.0	113.0	71.0	79.0	84.0	50.0
Sikkim	NA	NA	NA	NA	NA	NA	51.0	53.8	29.5
Tamil Nadu	91.0	103.7	55.3	80.0	92.6	54.0	57.0	65.0	42.0
Tripura	NA	NA	NA	NA	NA	NA	56.2	56.9	45.7
Uttar Pradesh	150.0	157.0	97.0	132.0	140.0	88.0	97.0	102.0	74.0
Uttaranchal	-	-	-	-	-	-	-	-	-
West Bengal	91.0	98.0	44.0	71.0	75.0	55.0	71.0	76.0	47.0
All India	**110.4**	**119.1**	**62.5**	**96.4**	**104.6**	**62.0**	**80.0**	**87.0**	**53.0**

Sources: Health Information of India,CBHI,GOI, respective years

Note: NA - not available; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent state

(Cont...)

(Cont...) **1.2: Infant Mortality Rates: All India (per 1000 live births)**

State/Year	1996			1998			2000		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Andaman & Nicobar	29.5	36.6	6.6	30.0	37.0	9.0	23.0	27.0	10.0
Andhra Pradesh	65.0	73.0	38.0	66.0	75.0	38.0	NA	NA	NA
Arunachal Pradesh	38.6	40.3	0	44.0	46.0	10.0	NA	NA	NA
Assam	74.0	79.0	37.0	76.0	80.0	36.0	NA	NA	NA
Bihar	71.0	73.0	54.0	67.0	68.0	51.0	NA	NA	NA
Chandigarh	27.0	44.6	24.6	32.0	44.0	30.0	28.0	38.0	26.0
Chattisgarh	-	-	-	NA	36	NA	NA	NA	NA
Dadra & Nagar Haveli	57.2	61.2	0	61.0	65.0	7.0	58.0	62.0	14.0
Delhi	40.7	36.2	41.3	36.0	36.0	36.0	32.0	32.0	32.0
Goa,Daman & Diu	24.8	26.7	21.6	44.0	46.0	10.0	NA	NA	NA
Gujarat	61.0	68.0	46.0	64.0	71.0	46.0	NA	NA	NA
Haryana	68.0	70.0	60.0	70.0	72.0	59.0	67.0	69.0	57.0
Himachal Pradesh	63.3	64.9	37.5	64.0	66.0	38.0	60.0	62.0	37.0
Jammu & Kashmir	NA	NA	NA	NA	NA	NA	50.0	51.0	45.0
Jharkhand	-	-	-	-	-	-	-	-	-
Karnataka	53.0	63.0	25.0	58.0	70.0	25.0	57.0	68.0	24.0
Kerala	14.0	13.0	16.0	16.0	15.0	17.0	14.0	14.0	14.0
Lakshadweep(I)	16.3	22.0	10.8	26.0	22.0	30.0	27.0	25.0	29.0
Madhya Pradesh	97.0	102.0	61.0	98.0	104.0	56.0	88.0	94.0	54.0
Maharashtra	48.0	58.0	31.0	49.0	58.0	32.0	48.0	57.0	33.0
Manipur	23.6	23.6	23.7	25.0	22.0	26.0	23.0	23.0	25.0
Meghalaya	47.7	48.9	36.3	52.0	54.0	36.0	58.0	61.0	32.0
Mizoram	NA	NA	NA	23.0	26.0	18.0	NA	NA	NA
Nagaland	32.8	NA	32.8	NA	NA	16.0	NA	NA	23.0
Orissa	96.0	99.0	65.0	98.0	101.0	66.0	96.0	99.0	66.0
Pondicherry	14.6	21.9	8.4	21.0	31.0	14.0	NA	NA	NA
Punjab	51.0	54.0	40.0	54.0	58.0	40.0	52.0	56.0	38.0
Rajasthan	85.0	90.0	60.0	83.0	87.0	60.0	79.0	83.0	58.0
Sikkim	52.9	53.0	50.6	52.0	52.0	44.0	49.0	49.0	36.0
Tamil Nadu	53.0	60.0	39.0	53.0	59.0	40.0	51.0	57.0	38.0
Tripura	48.5	48.6	47.6	49.0	50.0	39.0	41.0	42.0	32.0
Uttar Pradesh	85.0	88.0	67.0	85.0	89.0	65.0	83.0	87.0	65.0
Uttaranchal	-	-	-	-	-	-	-	-	-
West Bengal	55.0	58.0	44.0	53.0	56.0	41.0	51.0	54.0	37.0
All India	**72.0**	**77.0**	**46.0**	**72.0**	**77.0**	**45.0**	**68.0**	**74.0**	**43.0**

Sources: Health Information of India,CBHI,GOI, respective years

Note: NA - not available; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent state

1.3: Still birth Rate: All India (per 1000 live births)

State/Year	1981			1986			1991		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Andhra Pradesh	13.8	15.1	7.3	11.9	10.5	17.2	14.7	13.8	18.5
Assam	16.8	17.4	6.1	14.2	14.4	11.6	13.8	14.1	7.4
Bihar	11.2	12.0	4.2	9.0	9.3	5.7	5.1	5.2	4.5
Chattisgarh	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gujarat	4.4	3.8	6.7	6.2	4.9	9.3	5.8	4.5	9.0
Haryana	11.5	12.0	7.5	13.2	14.8	6.0	11.3	12.5	5.6
Himachal Pradesh	NA	NA	NA	8.3	8.5	3.8	13.7	14.1	3.6
Jammu & Kashmir	16.1	17.4	7.0	15.6	14.7	20.3	NA	NA	NA
Karnataka	11.7	13.1	7.6	11.5	12.2	9.6	20.4	22.1	15.2
Kerala	11.3	12.4	4.8	10.3	10.1	11.0	9.2	10.2	4.6
Madhya Pradesh	9.5	9.1	11.9	8.2	7.8	10.5	11.4	11.7	10.3
Maharashtra	8.3	9.8	4.4	12.1	13.7	8.9	11.4	11.2	11.8
Mizoram	NA	NA	NA	NA	NA	NA	NA	NA	NA
Orissa	9.8	10.1	5.8	14.6	15.6	3.6	17.8	18.3	12.0
Punjab	13.2	14.3	8.6	12.9	14.7	7.8	24.7	27.6	16.1
Rajasthan	7.6	8.1	5.0	7.7	7.7	7.8	5.9	6.5	2.7
Tamil Nadu	8.6	9.9	4.8	10.4	11.4	8.5	9.9	8.4	12.7
Uttar Pradesh	12.6	13.5	4.4	8.6	9.3	4.7	8.5	8.9	5.9
West Bengal	9.2	9.4	7.7	12.7	13.4	9.6	12.4	13.6	7.2
All INDIA	**10.6**	**11.4**	**6.2**	**10.2**	**10.5**	**9.0**	**10.7**	**10.9**	**9.6**

(Cont...)

(Cont...) **1.3: Still birth Rate: All India (per 1000 live births)**

State/Year	1996			1998		
	Total	Rural	Urban	Total	Rural	Urban
Andhra Pradesh	9.0	9.0	9.0	9.0	9.0	8.0
Assam	11.0	10.0	14.0	17.0	18.0	15.0
Bihar	12.0	12.0	11.0	11.0	12.0	6.0
Chattisgarh	6.0	5.0	13.0	4.0	4.0	2.0
Gujarat	NA	NA	NA	NA	NA	NA
Haryana	4.0	3.0	5.0	4.0	3.0	4.0
Himachal Pradesh	10.0	10.0	9.0	12.0	12.0	8.0
Jammu & Kashmir	7.0	6.0	8.0	12.0	12.0	7.0
Karnataka	NA	NA	NA	NA	NA	NA
Kerala	14.0	13.0	16.0	21.0	21.0	21.0
Madhya Pradesh	10.0	9.0	11.0	15.0	14.0	17.0
Maharashtra	10.0	10.0	7.0	7.0	7.0	4.0
Mizoram	12.0	14.0	10.0	11.0	12.0	9.0
Orissa	NA	NA	NA	NA	NA	NA
Punjab	15.0	16.0	8.0	17.0	18.0	8.0
Rajasthan	10.0	11.0	7.0	17.0	18.0	11.0
Tamil Nadu	6.0	6.0	5.0	NA	NA	NA
Uttar Pradesh	11.0	10.0	11.0	13.0	14.0	9.0
West Bengal	8.0	8.0	6.0	6.0	6.0	4.0
All INDIA	**13.0**	**13.0**	**12.0**	**8.0**	**9.0**	**5.0**

Sources: Health Information of India,CBHI,GOI, respective years

Note: NA - not available

1.4: Total Fertility Rate: All India

State/Year	1981			1986			1991		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Andaman & Nicobar	NA	NA	NA	NA	NA	NA	2.6	2.4	3.3
Andhra Pradesh	4.0	4.2	3.0	3.8	4.1	3.1	3.0	3.1	2.5
Arunachal Pradesh	NA	NA	NA	NA	NA	NA	3.9	4.0	2.9
Assam	4.1	4.2	2.6	4.0	4.2	2.5	3.5	3.6	2.1
Bihar	5.7	5.8	4.8	5.2	5.3	4.2	4.4	4.5	3.5
Chandigarh	NA	NA	NA	NA	NA	NA	1.2	2.0	1.2
Chattisgarh	-	-	-	-	-	-	-	-	-
Dadra & Nagar Havel	NA	NA	NA	NA	NA	NA	5.4	3.9	NA
Delhi	NA	NA	NA	NA	NA	NA	1.6	3.0	1.5
Goa,Daman & Diu	NA	NA	NA	NA	NA	NA	1.4	1.6	1.2
Gujarat	4.3	4.6	3.4	3.8	4.0	3.3	3.1	3.2	2.9
Haryana	5.0	5.3	3.5	4.4	4.8	3.3	4.0	4.3	3.0
Himachal Pradesh	3.8	3.9	2.0	3.6	3.7	2.2	3.1	3.2	2.0
Jammu & Kashmir	4.5	5.0	2.5	4.4	4.8	2.8	NA	NA	NA
Jharkhand	-	-	-	-	-	-	-	-	-
Karnataka	3.6	3.8	3.0	3.5	3.7	2.9	3.1	3.3	2.5
Kerala	2.8	2.9	2.4	2.3	2.3	2.2	1.8	1.8	1.7
Lakshadweep(I)	NA	NA	NA	NA	NA	NA	5.4	3.1	8.1
Madhya Pradesh	5.2	5.5	3.9	4.9	5.4	3.5	4.6	4.9	3.4
Madras	NA	NA	NA	NA	NA	NA	NA	NA	NA
Maharashtra	3.6	4.0	3.0	3.6	4.0	3.0	3.0	3.4	2.5
Manipur	NA	NA	NA	NA	NA	NA	2.2	2.5	1.4
Meghalaya	NA	NA	NA	NA	NA	NA	3.9	4.5	1.5
Mizoram	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nagaland	NA	NA	NA	NA	NA	NA	2.3	2.3	2.0
Orissa	4.3	4.3	3.7	4.2	4.3	3.1	3.3	3.4	2.3
Pondicherry	NA	NA	NA	NA	NA	NA	1.5	1.9	1.3
Punjab	4.0	4.1	3.4	3.4	3.6	3.1	3.1	3.2	2.8
Rajasthan	5.2	5.5	4.2	5.0	5.3	3.8	4.6	4.9	3.7
Sikkim	NA	NA	NA	NA	NA	NA	3.3	3.1	10.5
Tamil Nadu	3.4	3.7	2.7	2.7	2.8	2.4	2.2	2.3	2.0
Tripura	NA	NA	NA	NA	NA	NA	3.8	3.8	3.8
Uttar Pradesh	5.8	6.1	4.1	5.4	5.8	4.0	5.1	5.4	3.7
Uttaranchal	-	-	-	-	-	-	-	-	-
West Bengal	4.2	4.8	2.4	3.6	4.2	2.3	3.2	3.6	2.1
All INDIA	**4.5**	**4.8**	**3.3**	**4.2**	**4.5**	**3.1**	**3.6**	**3.9**	**2.7**

Sources: Sample Registration System, Statistical Report, respective years; Compendium of India's fertility and mortality indicator 1971-1997 base on the Sample Registration System,1999

Note: NA - not available; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent state

(Cont...)

(Cont...)

1.4: Total Fertility Rate: All India

State/Year	1996			1998			1999		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Andaman & Nicobar	1.9	2.0	1.6	NA	NA	NA	NA	NA	NA
Andhra Pradesh	2.5	2.7	2.1	2.4	2.6	2.1	2.4	2.5	2.1
Arunachal Pradesh	2.8	2.9	1.2	NA	NA	NA	NA	NA	NA
Assam	3.2	3.4	2.1	3.2	3.4	2.0	3.2	3.3	1.9
Bihar	4.5	4.6	3.2	4.3	4.5	3.1	4.5	4.7	3.4
Chandigarh	2.1	2.6	2.1	NA	NA	NA	NA	NA	NA
Chattisgarh	-	-	-	-	-	-	-	-	-
Dadra & Nagar Havel	3.5	3.6	2.4	NA	NA	NA	NA	NA	NA
Delhi	1.6	1.7	1.6	NA	NA	NA	NA	NA	NA
Goa,Daman & Diu	1.5	1.6	1.3	NA	NA	NA	NA	NA	NA
Gujarat	3.0	3.2	2.6	3.0	3.3	2.5	3.0	3.2	2.4
Haryana	3.5	3.8	2.7	3.3	3.5	2.7	3.2	3.3	2.6
Himachal Pradesh	2.4	2.5	1.8	2.4	2.4	1.8	2.4	2.5	1.8
Jammu & Kashmir	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jharkhand	-	-	-	-	-	-	-	-	-
Karnataka	2.6	2.8	2.1	2.4	2.6	2.0	2.5	2.7	2.0
Kerala	1.8	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8
Lakshadweep(I)	2.8	2.9	2.7	NA	NA	NA	NA	NA	NA
Madhya Pradesh	4.1	4.4	2.5	3.9	4.1	2.6	3.9	4.3	2.6
Madras	NA	NA	NA	NA	NA	NA	NA	NA	NA
Maharashtra	2.8	3.2	2.4	2.7	2.9	2.3	2.5	2.7	2.3
Manipur	2.4	2.6	2.1	NA	NA	NA	NA	NA	NA
Meghalaya	4.0	4.5	1.7	NA	NA	NA	NA	NA	NA
Mizoram	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nagaland	1.5	NA	1.5	NA	NA	NA	NA	NA	NA
Orissa	3.1	3.3	2.3	2.9	3.0	2.3	2.7	2.8	2.2
Pondicherry	1.8	2.0	1.6	NA	NA	NA	NA	NA	NA
Punjab	2.8	3.0	2.2	2.6	2.7	2.1	2.5	2.6	2.1
Rajasthan	4.2	4.5	3.0	4.1	4.4	3.0	4.2	4.4	3.0
Sikkim	2.5	2.6	1.4	NA	NA	NA	NA	NA	NA
Tamil Nadu	2.1	2.2	1.8	2.0	4.8	3.6	2.0	2.1	1.8
Tripura	2.1	1.0	0.6	NA	NA	NA	NA	NA	NA
Uttar Pradesh	4.9	5.1	3.7	4.6	4.8	3.6	4.7	5.0	3.6
Uttaranchal	-	-	-	-	-	-	-	-	-
West Bengal	2.6	2.9	1.8	2.4	2.7	1.7	2.4	2.7	1.6
All INDIA	**3.4**	**3.7**	**2.4**	**3.2**	**3.5**	**2.4**	**3.2**	**3.5**	**2.3**

Sources: Sample Registration System, Statistical Report, respective years; Compendium of India's fertility and mortality indicator 1971-1997 base on the Sample Registration System,1999

Note: NA - not available; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent state

1.5: Percentage Institutional Births: All India

State/Year	1981			1986			1991		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Andaman & Nicobar	NA	NA	NA	NA	NA	NA	NA	NA	NA
Andhra Pradesh	16.6	7.8	56.9	28.5	13.5	65.7	37.7	21.4	78.1
Arunachal Pradesh	NA	NA	NA	NA	NA	NA	NA	NA	NA
Assam	16.1	7.6	41.3	15.6	10.4	45.9	18.3	12.9	50.9
Bihar	8.3	2.2	37.1	9.6	8.6	25.7	11.7	9.5	28.2
Chandigarh	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chattisgarh	-	-	-	-	-	-	-	-	-
Dadra & Nagar Havel	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delhi	NA	NA	NA	NA	NA	NA	NA	NA	NA
Goa,Daman & Diu	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gujarat	12.4	6.3	43.9	21.4	14.9	56.7	23.5	16.3	64.8
Haryana	6.5	2.7	16.1	15.7	15.0	18.2	19.9	16.9	32.7
Himachal Pradesh	24.2	7.2	40.9	24.6	20.9	46.3	21.5	16.4	49.1
Jammu & Kashmir	4.0	2.7	7.9	9.6	5.5	25.1	NA	NA	NA
Jharkhand	-	-	-	-	-	-	-	-	-
Karnataka	19.7	9.9	59.5	27.0	16.8	57.1	40.6	30.5	73.4
Kerala	52.7	46.3	77.4	78.1	76.5	85.0	91.5	90.6	95.3
Lakshadweep(I)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Madhya Pradesh	10.5	0.5	46.0	13.3	2.1	47.8	13.2	5.3	50.2
Maharashtra	26.5	10.9	69.5	33.7	20.2	72.0	34.3	20.9	75.9
Manipur	NA	NA	NA	NA	NA	NA	NA	NA	NA
Meghalaya	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mizoram	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nagaland	NA	NA	NA	NA	NA	NA	NA	NA	NA
Orissa	5.3	0.9	14.7	5.4	3.7	29.0	9.8	6.4	33.8
Pondicherry	NA	NA	NA	NA	NA	NA	NA	NA	NA
Punjab	2.2	1.7	3.3	7.0	6.1	9.4	7.3	5.2	13.0
Rajasthan	3.1	0.4	11.3	3.8	1.4	16.4	5.0	2.6	16.8
Sikkim	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tamil Nadu	31.0	24.2	62.1	41.5	30.0	78.2	56.8	46.2	89.1
Tripura	NA	NA	NA	NA	NA	NA	NA	NA	NA
Uttar Pradesh	5.8	0.3	14.6	3.6	1.8	13.1	4.5	2.7	14.1
Uttaranchal	-	-	-	-	-	-	-	-	-
West Bengal	32.1	10.2	71.9	28.2	20.8	76.9	30.7	23.4	78.0
All INDIA	**17.7**	**10.6**	**38.8**	**20.7**	**14.3**	**47.8**	**24.3**	**17.6**	**53.8**

Sources: Sample Registration System, Statistical Report, respective years

Note: NA - not available; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent state

(Cont...)

(Cont...)

1.5: Percentage Institutional Births: All India

State/Year	1996			1998			1999		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Andaman & Nicobar	NA	NA	NA	NA	NA	NA	NA	NA	NA
Andhra Pradesh	42.1	31.0	81.6	42.8	31.3	81.8	43.0	31.4	81.9
Arunachal Pradesh	NA	NA	NA	NA	NA	NA	NA	NA	NA
Assam	20.9	18.3	52.7	21.1	18.5	53.0	21.0	18.6	53.0
Bihar	15.1	13.7	31.3	15.4	14.1	31.6	15.8	14.2	31.7
Chandigarh	-	-	-	-	-	-	-	-	-
Chattisgarh	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dadra & Nagar Havel	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delhi	NA	NA	NA	NA	NA	NA	NA	NA	NA
Goa,Daman & Diu	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gujarat	36.6	21.3	74.0	36.3	21.8	74.4	36.3	21.9	74.5
Haryana	24.3	20.0	44.6	24.7	20.3	44.9	24.8	20.4	45.0
Himachal Pradesh	24.0	22.1	56.4	24.3	22.4	56.7	24.3	22.5	56.8
Jammu & Kashmir	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jharkhand	-	-	-	-	-	-	-	-	-
Karnataka	49.2	37.7	80.1	49.2	37.9	80.4	49.0	38.0	80.5
Kerala	97.1	96.5	98.9	97.1	96.6	98.9	97.1	96.6	98.8
Lakshadweep(I)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Madhya Pradesh	14.2	8.5	57.1	14.7	8.7	57.8	16.4	8.8	57.9
Maharashtra	47.4	30.0	79.3	47.8	30.1	79.7	48.6	30.2	79.7
Manipur	NA	NA	NA	NA	NA	NA	NA	NA	NA
Meghalaya	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mizoram	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nagaland	NA	NA	NA	NA	NA	NA	NA	NA	NA
Orissa	13.3	10.7	39.0	13.9	11.1	39.8	14.1	11.3	39.9
Pondicherry	NA	NA	NA	NA	NA	NA	NA	NA	NA
Punjab	12.5	12.4	12.8	12.7	12.6	13.1	12.8	12.7	13.2
Rajasthan	7.8	4.3	28.7	8.0	4.6	29.2	8.1	4.7	29.3
Sikkim	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tamil Nadu	64.7	52.2	92.4	64.8	52.4	92.7	64.7	52.5	92.7
Tripura	NA	NA	NA	NA	NA	NA	NA	NA	NA
Uttar Pradesh	7.5	5.5	19.6	7.8	5.9	20.0	8.0	6.0	20.1
Uttaranchal	-	-	-	-	-	-	-	-	-
West Bengal	35.9	26.8	75.6	36.2	27.1	76.0	35.8	27.0	79.1
All INDIA	**25.2**	**17.7**	**59.5**	**25.4**	**18.0**	**59.6**	**26.6**	**18.2**	**59.7**

Sources: Sample Registration System, Statistical Report, respective years

Note: NA - not available; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent state

1.6: Percentage Births Attended by Trained Practitioners: All India

State/Year	1981			1986			1991		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Andaman & Nicobar	NA	NA	NA	NA	NA	NA	NA	NA	NA
Andhra Pradesh	15.8	15.1	19.1	18.8	20.5	11.4	19.6	24.5	7.5
Arunachal Pradesh	NA	NA	NA	NA	NA	NA	NA	NA	NA
Assam	5.3	4.0	9.1	9.4	8.7	13.5	10.7	9.8	16.2
Bihar	5.3	4.5	8.6	12.4	10.8	25.1	15.3	13.5	29.2
Chandigarh	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chattisgarh	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dadra & Nagar Havel	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delhi	NA	NA	NA	NA	NA	NA	NA	NA	NA
Goa,Daman & Diu	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gujarat	23.0	24.5	15.5	30.4	33.9	11.6	33.6	36.6	16.2
Haryana	58.2	57.8	59.3	63	63.9	59.5	64.5	65.4	60.9
Himachal Pradesh	20.4	8.0	32.7	15.3	12.1	34.4	23.8	20.3	42.8
Jammu & Kashmir	19.3	11.1	42.9	21.2	16.9	37.1	NA	NA	NA
Jharkhand	NA	NA	NA	NA	NA	NA	NA	NA	NA
Karnataka	13.8	14.8	9.7	26.6	30	16.8	23.5	26.2	14.8
Kerala	16.9	17.6	14.2	7.9	7.7	9.2	5.0	5.3	3.7
Lakshadweep(I)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Madhya Pradesh	7.2	6.7	8.7	11.9	11.3	13.8	14.1	13.0	19.1
Maharashtra	10.2	9.4	12.2	12.7	10.8	18.2	15.5	14.8	17.7
Manipur	NA	NA	NA	NA	NA	NA	NA	NA	NA
Meghalaya	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mizoram	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nagaland	NA	NA	NA	NA	NA	NA	NA	NA	NA
Orissa	12.1	8.9	19.0	14.0	13.5	22.4	18.0	16.6	27.8
Pondicherry	NA	NA	NA	NA	NA	NA	NA	NA	NA
Punjab	54.6	46.1	75.7	70.5	66.4	81	87.2	87.9	85.2
Rajasthan	12.7	8.0	27.2	12.8	9.6	29.2	19.4	16.7	33.0
Sikkim	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tamil Nadu	18.1	17.4	20.9	18.6	20.7	12.0	18.8	22.7	6.8
Tripura	NA	NA	NA	NA	NA	NA	NA	NA	NA
Uttar Pradesh	23.2	10.2	44.0	21.8	16.9	48.2	26.6	20.1	61.1
Uttaranchal	NA	NA	NA	NA	NA	NA	NA	NA	NA
West Bengal	3.3	2.5	4.7	6.9	6.5	9.6	9.3	9.0	11.5
All INDIA	**18.5**	**15.7**	**27.0**	**19.1**	**17.7**	**25.0**	**21.9**	**20.8**	**26.9**

Sources: Sample Registration System, Statistical Report, respective years

Note: NA - not available; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent State

(Cont...)

(Cont...) **1.6: Percentage Births Attended by Trained Practitioners: All India**

State/Year	1996			1998			1999		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Andaman & Nicobar	NA	NA	NA	NA	NA	NA	NA	NA	NA
Andhra Pradesh	27.5	32.3	10.7	27.7	32.6	11.1	27.7	32.7	11.2
Arunachal Pradesh	NA	NA	NA	NA	NA	NA	NA	NA	NA
Assam	16.0	14.9	28.1	16.1	15.2	28.2	16.2	15.3	28.3
Bihar	19.1	17.1	42.0	19.4	17.5	42.3	19.8	17.4	41.9
Chandigarh	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chattisgarh	-	-	-	-	-	-	-	-	-
Dadra & Nagar Havel	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delhi	NA	NA	NA	NA	NA	NA	NA	NA	NA
Goa,Daman & Diu	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gujarat	37.6	44.7	20.1	38.3	45.2	20.3	38.4	45.3	20.3
Haryana	67.9	70.7	54.7	68.1	71.0	54.5	68.0	71.1	54.3
Himachal Pradesh	26.2	25.3	41.6	26.6	25.6	41.7	26.6	25.7	41.8
Jammu & Kashmir	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jharkhand	-	-	-	-	-	-	-	-	-
Karnataka	25.5	29.3	15.4	26.0	29.8	15.7	26.2	29.9	15.8
Kerala	1.8	2.2	0.4	1.8	2.3	0.3	1.8	2.3	0.4
Lakshadweep(I)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Madhya Pradesh	21.7	21.1	26.2	22.1	21.5	26.3	22.3	21.6	26.5
Maharashtra	20.4	20.8	19.5	20.6	21.1	19.6	20.6	21.2	19.7
Manipur	NA	NA	NA	NA	NA	NA	NA	NA	NA
Meghalaya	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mizoram	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nagaland	NA	NA	NA	NA	NA	NA	NA	NA	NA
Orissa	23.2	21.7	37.2	24.0	22.6	37.2	24.1	22.7	37.3
Pondicherry	NA	NA	NA	NA	NA	NA	NA	NA	NA
Punjab	85.8	85.8	86.4	86.1	86.0	86.4	86.1	86.1	86.4
Rajasthan	25.9	23.6	40.3	26.3	24.0	40.6	26.4	24.1	40.7
Sikkim	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tamil Nadu	20.9	27.3	6.8	21.5	27.9	6.9	21.6	28.0	6.9
Tripura	NA	NA	NA	NA	NA	NA	NA	NA	NA
Uttar Pradesh	41.7	37.9	65.8	42.0	38.1	66.0	42.3	38.2	66.1
Uttaranchal	-	-	-	-	-	-	-	-	-
West Bengal	13.6	12.0	19.8	13.9	12.6	19.9	13.9	12.7	19.8
All INDIA	**28.5**	**27.9**	**31.1**	**28.8**	**28.2**	**31.4**	**28.9**	**28.3**	**31.5**

Sources: Sample Registration System, Statistical Report, respective years

Note: NA - not available; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent State

1.7: Neo-natal Mortality Rate: All India (per 1000 live births)

State/Year	1981			1986			1991		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Andaman & Nicobar	NA	NA	NA	NA	NA	NA	NA	NA	NA
Andhra Pradesh	60.1	64.9	36.7	56.5	62.4	33.3	50.5	53.9	36.6
Arunachal Pradesh	NA	NA	NA	NA	NA	NA	NA	NA	NA
Assam	66.9	67.8	49.4	74.3	75.5	54.7	53.4	54.8	26.8
Bihar	74.3	78.1	38.8	62.0	64.0	39.0	41.4	42.9	24.9
Chandigarh	-	-	-	-	-	-	-	-	-
Chattisgarh	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dadra & Nagar Havel	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delhi	NA	NA	NA	NA	NA	NA	NA	NA	NA
Goa,Daman & Diu	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gujarat	74.9	82.1	49.3	76.0	90.2	41.8	45.1	50.2	31.8
Haryana	57.7	61.6	29.7	49.2	55.0	24.3	40.0	42.4	28.7
Himachal Pradesh	14.5	14.0	28.8	45.4	46.6	20.4	40.7	41.7	19.3
Jammu & Kashmir	43.9	46.0	29.8	55.5	59.4	35.2	NA	NA	NA
Jharkhand	-	-	-	-	-	-	-	-	-
Karnataka	48.6	54.9	29.3	54.4	60.8	35.5	52.9	59.5	31.4
Kerala	25.7	27.1	16.8	19.1	21.0	7.8	11.3	11.6	10.3
Lakshadweep(I)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Madhya Pradesh	80.7	85.6	50.0	66.1	69.4	49.0	68.1	73.0	42.0
Maharashtra	53.9	62.8	30.6	43.8	50.8	29.6	38.2	44.8	23.1
Manipur	NA	NA	NA	NA	NA	NA	NA	NA	NA
Meghalaya	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mizoram	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nagaland	NA	NA	NA	NA	NA	NA	NA	NA	NA
Orissa	79.7	82.9	38.0	72.4	75.7	34.4	74.7	77.6	37.7
Pondicherry	NA	NA	NA	NA	NA	NA	NA	NA	NA
Punjab	48.8	53.5	28.2	38.7	40.3	21.6	33.5	37.8	21.1
Rajasthan	59.6	65.2	28	62.6	67.4	35.9	48.4	52.0	28.7
Sikkim	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tamil Nadu	62.6	71.2	38.1	57.1	67.0	37.1	42.6	49.3	29.6
Tripura	NA	NA	NA	NA	NA	NA	NA	NA	NA
Uttar Pradesh	96.2	101.2	55.5	77.8	82.8	50.7	64.3	67.1	48.5
Uttaranchal	-	-	-	-	-	-	-	-	-
West Bengal	63.9	68.8	32.5	42.8	46.9	25.6	43.6	48.0	24.7
All INDIA	**69.9**	**75.6**	**38.5**	**59.8**	**65.5**	**36.2**	**51.1**	**55.4**	**32.2**

Sources: Sample Registration System, Statistical Report, respective years

Note: NA - not available; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent State

(Cont...)

(Cont...) **1.7: Neo-natal Mortality Rate: All India (per 1000 live births)**

State/Year	1996			1998			1999		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Andaman & Nicobar	NA	NA	NA	NA	NA	NA	NA	NA	NA
Andhra Pradesh	46.0	50.0	30.0	46.0	52.0	26.0	46.0	52.0	26.0
Arunachal Pradesh	NA	NA	NA	NA	NA	NA	NA	NA	NA
Assam	47.0	50.0	27.0	51.0	53.0	26.0	53.0	55.0	26.0
Bihar	45.0	47.0	30.0	44.0	45.0	29.0	41.0	43.0	29.0
Chandigarh	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chattisgarh	-	-	-	-	-	-	-	-	-
Dadra & Nagar Havel	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delhi	NA	NA	NA	NA	NA	NA	NA	NA	NA
Goa,Daman & Diu	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gujarat	38.0	41.0	31.0	44.0	49.0	29.0	43.0	49.0	28.0
Haryana	41.0	42.0	36.0	41.0	43.0	29.0	39.0	42.0	29.0
Himachal Pradesh	45.0	46.0	26.0	50.0	51.0	31.0	50.0	51.0	31.0
Jammu & Kashmir	NA	NA	NA	NA	NA	NA	NA	NA	NA
Jharkhand	-	-	-	-	-	-	-	-	-
Karnataka	39.0	47.0	17.0	42.0	50.0	17.0	43.0	52.0	17.0
Kerala	10.0	10.0	10.0	11.0	11.0	12.0	11.0	10.0	14.0
Lakshadweep(I)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Madhya Pradesh	64.0	66.0	44.0	61.0	63.0	45.0	61.0	64.0	45.0
Maharashtra	33.0	40.0	20.0	29.0	33.0	22.0	29.0	34.0	22.0
Manipur	NA	NA	NA	NA	NA	NA	NA	NA	NA
Meghalaya	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mizoram	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nagaland	NA	NA	NA	NA	NA	NA	NA	NA	NA
Orissa	64.0	66.0	40.0	60.0	64.0	30.0	61.0	64.0	30.0
Pondicherry	NA	NA	NA	NA	NA	NA	NA	NA	NA
Punjab	34.0	37.0	25.0	33.0	35.0	25.0	34.0	36.0	26.0
Rajasthan	56.0	59.0	37.0	50.0	53.0	33.0	50.0	53.0	34.0
Sikkim	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tamil Nadu	39.0	45.0	28.0	35.0	39.0	27.0	36.0	39.0	29.0
Tripura	NA	NA	NA	NA	NA	NA	NA	NA	NA
Uttar Pradesh	51.0	54.0	34.0	52.0	55.0	33.0	52.0	56.0	33.0
Uttaranchal	-	-	-	-	-	-	-	-	-
West Bengal	36.0	39.0	25.0	30.0	33.0	21.0	31.0	33.0	23.0
All INDIA	**47.0**	**50.0**	**28.0**	**45.0**	**49.0**	**27.0**	**45.0**	**49.0**	**28.0**

Sources: Sample Registration System, Statistical Report, respective years

Note: NA - not available; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent State

2.1: Doctors and Nurses: All India (per 100,000 population)

State/Year	1981		1986		1991		1996		1999		2000	
	Doctors	**Nurses**	**Doctors**	**Nurses**	**Doctors**	**Nurses**	**Doctors**	**Nurses**	**Doctors**	**Nurses**	**Doctors**	**Nurses**
Andaman & Nicobar	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Andhra Pradesh	43.05	20.32	46.97	24.18	50.17	25.09	62.86	68.68	71.11	131.60	73.29	133.42
Arunachal Pradesh*	*	NA	*	NA	*	NA	*	NA	*	NA	*	NA
Assam	36.35	13.00	42.19	12.24	46.84	10.13	50.85	9.22	52.85	10.01	53.72	33.29
Bihar	26.30	11.09	29.17	11.50	30.54	10.28	34.91	10.49	37.69	10.61	38.65	10.65
Chandigarh	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chattisgarh	Included in Madhya Pradesh											
Dadra & Nagar Haveli	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Delhi	NA	NA	73.75	NA	106.60	NA	131.74	NA	148.09	NA	152.31	NA
Goa,Daman & Diu	NA	NA	NA	NA	NA	NA	57.21	NA	116.82	NA	127.85	NA
Gujarat	42.99	14.45	48.75	17.21	54.21	71.28	59.10	118.69	62.29	166.08	63.67	137.59
Haryana	NA	13.97	1.74	18.38	3.91	20.55	4.82	22.93	4.94	21.08	5.03	63.41
Himachal Pradesh	NA	4.44	NA	6.49	NA	29.47	NA	78.20	NA	98.51	NA	96.81
Jammu & Kashmir	44.53	NA	49.85	NA	57.10	NA	60.47	NA	62.22	NA	62.22	NA
Jharkhand	Included in Bihar											
Karnataka	51.05	13.94	62.03	20.88	72.95	52.03	91.84	55.53	104.52	148.92	109.29	146.36
Kerla	45.95	37.48	54.61	136.25	66.89	78.17	80.86	81.7	88.97	167.32	91.87	185.65
Lakshadweep(I)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Madhya Pradesh	8.07	15.50	13.21	17.73	16.90	106.94	23.48	133.25	28.01	131.95	29.75	142.95
Maharashtra	65.43	54.03	55.36	47.41	62.54	50.26	71.30	110.15	78.01	112.01	79.97	106.30
Manipur*	*	NA	*	NA	*	NA	*	NA	*	NA	*	NA
Meghalaya*	*	NA	*	NA	*	NA	*	NA	*	0	*	0
Mizoram*	*	NA	*	NA	*	0	*	17.36	*	55.55	*	164.91
Nagaland*	*	NA	*	NA	*	NA	*	NA	*	NA	*	NA
Orissa	30.67	11.26	32.63	13.65	35.02	65.19	36.89	89.51	37.93	89.18	38.27	105.06
Pondicherry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Punjab	127.88	94.56	130.00	105.48	131.33	122.03	130.20	140.59	129.64	155.52	129.66	152.45
Rajasthan	25.43	15.33	28.10	19.12	31.91	22.31	33.87	44.48	34.85	38.69	34.87	44.79
Sikkim	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tamil Nadu	65.68	51.75	74.18	51.57	83.10	61.40	93.17	134.90	100.11	130.28	102.26	166.95
Tripura*	NA	NA	NA	NA	NA	NA	NA	11.52	NA	15.42	NA	15.50
Uttar Pradesh	21.54	6.78	22.71	7.63	23.85	9.72	1.22	0.46	0.20	0.08	0.11	0.04
Uttranchal	Included in Uttar Pradesh											
West Bengal	60.15	16.23	61.27	18.70	61.29	27.02	61.60	46.68	61.72	65.51	61.75	53.94
All India	**39.22**	**21.95**	**41.69**	**27.00**	**46.51**	**40.20**	**34.68**	**60.16**	**49.31**	**73.61**	**54.27**	**75.89**

Sources: Health Information of India,CBHI,GOI, respective years;Census of India, Population Profiles (India,States and Union Territories), Office of the RGI,2004

Note: NA - not available; Population figures for the year 1986,1996,1999,2000 are calculated on the basis of growth rate; * Doctors for these states are included in Assam since the Medical Council for these states is common.

2.2: Hospitals: All India (per 100,000 population)

State/Year	1981			1986			1991		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
Andaman & Nicobar	7.19	6.04	6.89	5.12	3.14	4.63	1.94	5.34	2.85
Andhra Pradesh	0.41	3.52	1.14	0.37	2.92	1.02	0.66	4.67	1.74
Arunachal Pradesh	2.71	14.48	3.48	1.03	6.69	1.73	1.59	5.42	2.08
Assam	0.20	3.57	0.54	0.24	3.56	0.60	0.76	4.70	1.20
Bihar	0.03	2.37	0.32	0.12	2.13	0.38	0.10	1.96	0.35
Chandigarh	0	0.47	0.44	1.89	0.40	0.54	0	0.35	0.31
Chattisgarh	-	-	-	-	-	-	-	-	-
Dadra & Nagar Haveli	1.03	0	0.96	0.89	0	0.82	1.58	0	1.44
Delhi	0.44	1.06	1.01	0.13	0.94	0.87	0.42	0.91	0.86
Goa,Daman & Diu	3.27	15.92	7.36	6.22	10.92	8.04	NA	NA	NA
Gujarat	0.13	7.53	2.43	0.39	10.55	3.77	0.70	11.20	4.32
Haryana	0.06	2.79	0.66	0.07	1.94	0.52	0.06	1.75	0.48
Himachal Pradesh	0.53	10.74	1.31	0.53	10.96	1.40	0.40	8.90	1.14
Jammu & Kashmir	0.04	2.62	0.58	0.19	2.73	0.77	0.26	2.72	0.84
Jharkhand	-	-	-	-	-	-	-	-	-
Karnataka	0.18	1.73	0.63	0.16	1.64	0.61	0.08	1.93	0.65
Kerala	2.88	3.42	2.98	0.94	2.03	1.20	6.72	7.77	7.00
Lakshadweep(I)	9.25	0	4.97	9.05	0	4.32	8.85	0	3.87
Madhya Pradesh	0.17	1.95	0.53	0.13	1.86	0.51	0.65	0.48	0.61
Maharashtra	0.25	4.10	1.60	0.38	5.17	2.17	0.71	5.76	0.27
Manipur	1.34	1.86	1.48	0.92	2.02	1.22	1.58	0.79	1.36
Meghalaya	0.09	4.14	0.82	0.08	4.15	0.83	0	2.42	0.45
Mizoram	1.61	2.46	1.82	0	4.67	2.01	1.08	3.15	2.03
Nagaland	4.43	4.16	4.39	3.07	5.26	3.43	2.10	4.80	2.56
Orissa	0.62	5.11	1.15	0.61	4.23	1.07	0.43	3.90	0.89
Pondicherry	0	3.80	1.99	0	2.32	1.42	0	1.93	1.24
Punjab	0.91	3.10	1.51	0.87	2.82	1.43	0.63	2.34	1.13
Rajasthan	0.09	2.86	0.67	0.07	2.54	0.62	0.04	1.98	0.49
Sikkim	1.26	1.96	1.88	0	11.26	1.56	0	13.51	1.23
Tamil Nadu	0.30	1.75	0.78	0.32	1.67	0.78	0.24	1.67	0.73
Tripura	0.11	5.76	0.73	0.24	3.80	0.74	0.43	3.08	0.83
Uttar Pradesh	0.10	3.22	0.66	0.08	2.71	0.59	0.07	2.36	0.53
Uttranchal	-	-	-	-	-	-	-	-	-
West Bengal	0.38	1.77	0.75	0.30	1.66	0.67	0.27	1.51	0.61
All India	**0.35**	**3.12**	**0.99**	**0.28**	**3.21**	**1.01**	**0.57**	**3.50**	**1.32**

Sources: Health Information of India,CBHI,GOI, respective years;Census of India, Population Profiles(India,States and Union Territories), Office of the RGI,2004

Note: Hospital includes government, local bodies, private and voluntary organisation; NA - not available; Population figures for the year 1986,1996,1999,2000 are calculated on the bases of growth rate; Hospitals figures (prior to 1997) are generally inclusive of CHC's; from 1992 excluding CHC's; Reduction in rural hospitals (from1998) due to exclusion of CHC's; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent State

(Cont...)

(Cont...) **2.2: Hospitals: All India (per 100,000 population)**

State/Year	1996			1999			2001		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
Andaman & Nicobar	3.13	4.08	3.43	0.85	3.48	1.73	0.83	3.44	1.68
Andhra Pradesh	1.69	17.82	4.75	1.95	24.29	5.25	1.91	99.62	5.45
Arunachal Pradesh	30.84	6.01	26.53	29.46	4.44	24.49	28.85	4.83	23.86
Assam	0.70	3.90	1.09	0.66	3.48	1.03	0.65	3.40	1.01
Bihar	0.13	2.26	0.39	0.13	2.43	0.39	0.13	2.63	0.40
Chandigarh	0	0.14	0.13	0	0.51	0.45	0	0.49	0.44
Chattisgarh	-	-	-	-	-	-	NA	NA	NA
Dadra & Nagar Haveli	0	6.14	1.62	1.81	0	1.37	0	5.94	1.36
Delhi	0.21	0.65	0.62	NA	NA	NA	NA	NA	4.04
Goa,Daman & Diu	5.91	10.86	8.18	4.28	12.8	8.43	3.98	12.5	8.10
Gujarat	0.61	14.03	5.47	0.58	12.73	5.12	0.56	12.41	4.99
Haryana	0.06	1.37	0.42	0.05	1.21	0.39	0.05	1.16	0.37
Himachal Pradesh	0.37	7.21	1.01	0.37	7.41	1.06	0.49	9.07	1.33
Jammu & Kashmir	0.95	0.09	0.74	0.04	1.63	0.43	0.04	1.59	0.42
Jharkhand	-	-	-	-	-	-	-	-	-
Karnataka	0.08	1.67	0.60	0.07	1.53	0.57	0.07	1.49	0.55
Kerala	6.41	7.48	6.69	8.74	0.98	6.72	NA	NA	13.92
Lakshadweep(I)	6.97	0	3.55	0	7.29	3.37	0	7.42	3.30
Madhya Pradesh	0.51	0.75	0.57	0.53	0.74	0.59	NA	0.59	0.16
Maharashtra	0.90	7.31	3.53	0.65	7.72	3.65	0.63	7.53	3.56
Manipur	1.67	0.92	1.49	0.72	0.89	0.76	0.76	0.87	0.78
Meghalaya	0	2.27	0.44	0	2.03	0.40	0	1.54	0.30
Mizoram	1.46	2.86	2.14	0	2.79	1.39	0.22	2.27	1.24
Nagaland	1.53	3.51	1.87	0.55	2.33	0.10	0.55	2.33	0.85
Orissa	0.98	2.91	1.25	0.33	3.22	0.76	0.32	3.14	0.74
Pondicherry	0	1.71	1.12	0	4.59	3.05	0	4.47	2.98
Punjab	0.49	1.97	0.98	0.47	1.80	0.93	0.47	1.75	0.90
Rajasthan	0.04	1.74	0.43	0.03	1.59	0.40	0.03	0.76	0.20
Sikkim	0	10.01	1.05	0	3.35	0.38	0	3.34	0.37
Tamil Nadu	0.25	1.35	0.69	0.25	1.18	0.67	0.25	1.16	0.65
Tripura	0.52	2.67	0.87	0.54	2.82	0.93	0.19	4.03	0.84
Uttar Pradesh	0.002	2.09	0.02	0.0002	1.94	0.004	0.01	1.89	0.05
Uttranchal	-	-	-	-	-	-	-	-	-
West Bengal	0.21	1.39	0.54	0.19	1.32	0.51	0.18	1.36	0.51
All India	**0.67**	**4.10**	**1.61**	**0.69**	**3.76**	**1.55**	**0.36**	**3.60**	**1.52**

Sources: Health Information of India,CBHI,GOI, respective years;Census of India, Population Profiles(India,States and Union Territories), Office of the RGI,2004

Note: Hospital includes government, local bodies, private and voluntary organisation; NA - not available; Population figures for the year 1986,1996,1999,2000 are calculated on the bases of growth rate; Hospitals figures (prior to 1997) are generally inclusive of CHC's; from 1992 excluding CHC's; Reduction in rural hospitals (from1998) due to exclusion of CHC's; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent State

2.3: Dispensaries: All India (per 100,000 population)

State/Year	1981			1986			1991		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
Andaman & Nicobar	43.85	12.09	35.50	15.93	9.43	14.3	0.97	6.67	2.49
Andhra Pradesh	1.31	1.35	1.32	1.22	1.58	1.32	0.28	0.25	0.27
Arunachal Pradesh	11.18	0	10.45	4.14	1.12	3.85	3.98	0.90	3.59
Assam	2.26	1.47	2.18	2.08	1.14	1.98	1.49	1.13	1.45
Bihar	1.61	0.18	1.43	2.49	0.16	2.19	0.55	0.14	0.49
Chandigarh	17.38	4.49	5.31	16.98	4.75	5.95	10.58	4.69	5.30
Chattisgarh	-	-	-	-	-	-	-	-	-
Dadra & Nagar Haveli	6.20	0	5.79	4.44	0	4.09	3.94	0	3.61
Delhi	16.81	7.26	7.96	12.61	6.41	7.04	10.22	6.45	6.83
Goa,Daman & Diu	4.35	2.27	3.68	23.12	12.26	19.13	NA	NA	NA
Gujarat	1.62	0.85	1.38	5.83	16.61	9.43	9.31	26.29	15.17
Haryana	1.47	3.57	1.93	0.47	2.49	0.95	0.31	4.32	1.30
Himachal Pradesh	4.53	6.14	4.65	4.55	5.86	4.69	4.02	5.12	4.12
Jammu & Kashmir	13.14	2.14	10.82	11.59	1.77	9.36	9.92	1.47	7.90
Jharkhand	-	-	-	-	-	-	-	-	-
Karnataka	4.37	2.57	3.85	4.27	2.21	3.66	1.94	1.67	1.86
Kerla	3.43	0.84	2.95	5.08	6.58	5.46	6.73	6.61	6.70
Lakshadweep(I)	9.25	0	4.97	0	0	0	0	0	0
Madhya Pradesh	1.26	1.11	1.23	0.84	0.77	0.82	0.30	0.82	0.42
Maharashtra	3.02	10.34	5.58	1.59	24.61	10.20	1.64	27.52	11.66
Manipur	4.69	0.80	3.66	4.10	0.67	3.18	3.68	0.59	2.83
Meghalaya	5.21	0.41	4.34	4.45	0.35	3.71	1.45	0.61	1.30
Mizoram	0	0	0	7.26	0	4.52	5.92	0	3.19
Nagaland	11.00	5.82	10.19	7.32	5.84	7.05	5.69	3.84	5.37
Orissa	0.96	2.48	1.14	0.81	1.99	0.96	0.48	1.51	0.62
Pondicherry	7.97	1.58	4.63	6.91	3.25	4.84	3.78	2.90	3.22
Punjab	10.62	4.22	8.85	4.30	4.12	9.65	8.74	3.74	7.26
Rajasthan	3.21	4.72	3.52	2.55	4.83	3.06	0.06	2.54	0.63
Sikkim	1.90	0	2.26	0	0	0	36.54	0	33.21
Tamil Nadu	0.96	2.22	1.38	0.85	2.14	1.29	0.40	1.91	0.92
Tripura	6.57	2.66	6.14	11.35	1.75	10.07	20.12	1.42	17.26
Uttar Pradesh	1.30	2.07	1.44	1.30	1.8	1.39	1.18	1.56	1.26
Uttranchal	-	-	-	-	-	-	-	-	-
West Bengal	0.68	1.03	0.77	0.91	0.86	0.89	0.83	0.76	0.81
All India	**2.21**	**3.23**	**2.45**	**2.38**	**6.35**	**3.37**	**1.86**	**7.24**	**3.24**

Sources: Health Information of India,CBHI,GOI, respective years;Census of India, Population Profiles(India,States and Union Territories), Office of the RGI,2004

Note: Dispensaries includes government, local bodies, private and voluntary organisation; NA - not available; Population figures for the year 1986,1996,1999,2000 are calculated on the bases of growth rate; Dispensaries figures (prior to 1997) are generally inclusive of PHC's ,from 1997 excluding PHC's; Reduction in figures (from1998) is due to conversion to PHC's; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent state

(Cont...)

(Cont...)

2.3: Dispensaries: All India (per 100,000 population)

State/Year	1996			1999			2001		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
Andaman & Nicobar	44.76	30.62	40.56	2.98	33.03	12.97	3.75	30.98	12.64
Andhra Pradesh	0.43	0.72	0.49	0.20	0.29	0.22	0.20	1.20	0.23
Arunachal Pradesh	1.23	0.55	1.11	2.35	0.40	1.03	1.15	0.44	1.00
Assam	1.37	0.93	1.32	1.31	0.83	1.25	1.28	0.81	1.22
Bihar	0.55	0.16	0.50	0.55	0.17	0.51	0.55	0.18	0.51
Chandigarh	11.22	4.27	4.99	10.00	2.91	3.63	NA	NA	NA
Chattisgarh	-	-	-	-	-	-	-	-	-
Dadra & Nagar Haveli	2.00	0	1.62	1.81	0	1.37	5.29	0	4.08
Delhi	7.29	3.44	3.75	NA	NA	NA	NA	NA	NA
Goa,Daman & Diu	40.46	50.51	45.15	3.76	0.84	2.38	3.73	0.82	2.32
Gujarat	8.21	28.86	15.70	7.80	26.19	14.68	7.63	25.54	14.32
Haryana	0.29	3.41	1.15	0.23	1.61	0.64	0.22	1.59	0.61
Himachal Pradesh	3.13	4.17	3.23	2.74	4.13	2.88	2.68	4.20	2.83
Jammu & Kashmir	8.57	1.23	6.77	5.14	0.85	4.08	5.01	0.83	3.97
Jharkhand	-	-	-	-	-	-	-	-	-
Karnataka	1.80	1.46	1.69	1.64	1.34	1.54	1.61	1.30	1.51
Kerla	6.39	6.42	6.40	0.17	0.16	0.17	0.17	0.16	0.17
Lakshadweep(I)	3.48	7.13	3.55	0	0	0	0	0	0
Madhya Pradesh	0.27	0.80	0.40	0.28	0.80	0.42	NA	0.65	0.17
Maharashtra	0.67	21.52	9.22	4.57	8.37	6.19	4.47	8.17	6.04
Manipur	2.42	0.55	1.95	2.15	0.53	1.77	2.10	0.52	1.73
Meghalaya	1.14	0.50	1.02	1.05	0.45	0.93	0.97	0	0.78
Mizoram	4.38	0	2.26	2.98	0	1.50	NA	NA	NA
Nagaland	1.17	0	0.97	1.88	1.16	1.75	1.88	1.17	1.76
Orissa	3.66	1.38	3.33	3.90	1.17	3.50	3.82	1.14	3.42
Pondicherry	3.56	2.56	2.91	0.63	1.74	1.37	0.61	1.70	1.33
Punjab	8.02	3.35	6.53	7.70	2.90	6.10	7.56	2.83	5.96
Rajasthan	0	2.37	0.55	0	2.08	0.49	0	2.03	0.47
Sikkim	33.59	0	30.11	0	0	0	0	0	0
Tamil Nadu	0.41	1.54	0.86	0.42	1.36	0.84	0.42	1.33	0.82
Tripura	18.73	1.23	15.88	23.29	1.13	19.54	NA	NA	NA
Uttar Pradesh	0.03	1.38	0.05	0.003	1.28	0.01	0.10	1.25	0.13
Uttaranchal	-	-	-	-	-	-	-	-	-
West Bengal	0.76	0.69	0.74	0.76	0.65	0.73	0.23	0.33	0.26
All India	**1.75**	**6.37**	**3.00**	**1.67**	**3.73**	**2.29**	**1.49**	**3.60**	**2.08**

Sources: Health Information of India,CBHI,GOI, respective years;Census of India, Population Profiles(India,States and Union Territories), Office of the RGI,2004

Note: Dispensaries includes government, local bodies, private and voluntary organisation; NA - not available; Population figures for the year 1986,1996,1999,2000 are calculated on the bases of growth rate; Dispensaries figures (prior to 1997) are generally inclusive of PHC's ,from 1997 excluding PHC's; Reduction in figures (from1998) is due to conversion to PHC's; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent state

2.4: Primary Health Centres and Sub Centres: All India (per 100,000 population)

State/Year	1981		1986		1991		1996		1999		2000	
	PHCs	SCs	PHCs	SCs	PHCs	SCs	PHCs	SCs	PHCs	SCs	PHCs	SCs
All India	1.11	11.03	2.44	17.09	3.30	20.91	3.23	19.86	3.17	18.95	3.10	18.63
Andaman & Nicobar	1.44	0.72	5.69	24.47	8.26	46.67	7.61	42.97	7.24	41.32	7.54	41.90
Andhra Pradesh	1.03	10.74	2.22	15.49	2.64	16.24	2.56	20.28	3.01	19.46	2.52	19.19
Arunachal Pradesh	7.62	NA	9.90	9.75	4.24	26.93	5.53	27.40	5.28	28.76	7.51	31.56
Assam	0.82	4.91	1.72	13.87	2.65	26.50	2.86	24.41	2.73	23.24	2.64	22.13
Bihar	1.00	10.53	1.76	14.02	2.94	19.73	2.96	19.82	2.97	19.88	2.97	19.89
Chandigarh	NA	13.90	9.43	18.86	0	18.13	0	14.96	0	14.44	0	13.90
Chattisgarh	-	-	-	-	-	-	-	-	-	-	-	-
Dadra & Nagar Haveli	2.07	7.23	3.55	17.74	3.94	26.82	4.00	22.66	3.61	21.68	3.49	20.96
Delhi	1.77	8.18	1.05	5.52	0.84	4.43	0.84	4.44	0.85	4.44	0.85	4.44
Goa,Daman & Diu	2.04	17.28	1.89	23.66	3.36	25.80	2.76	25.36	2.59	25.01	2.84	26.83
Gujarat	1.07	11.50	1.70	23.71	3.37	26.91	3.26	24.67	3.12	23.43	3.17	23.04
Haryana	0.88	10.30	2.19	17.57	3.18	18.53	2.90	16.69	2.73	15.67	2.68	15.35
Himachal Pradesh	1.95	18.33	3.86	22.21	4.07	39.20	5.08	38.71	5.81	38.56	5.54	37.95
Jammu & Kashmir	1.90	8.42	2.57	10.45	5.02	28.92	4.92	24.98	4.53	22.87	4.40	22.21
Jharkhand	-	-	-	-	-	-	-	-	-	-	-	-
Karnataka	1.16	13.07	1.74	17.92	4.06	25.08	4.85	24.66	4.89	23.77	4.83	23.48
Kerla	0.86	8.69	2.08	15.70	4.24	23.78	4.25	22.62	4.15	21.95	4.03	21.73
Lakshadweep(I)	32.38	NA	31.66	63.32	30.98	61.97	13.93	48.76	12.07	42.23	11.50	40.26
Madhya Pradesh	1.60	14.20	1.99	15.82	2.32	23.43	3.54	25.03	3.68	26.03	3.73	26.36
Maharashtra	1.11	9.91	3.00	19.92	3.46	19.38	3.25	18.63	3.11	17.80	3.19	17.54
Manipur	2.97	14.54	3.76	28.67	4.96	31.54	4.28	26.03	3.81	23.19	3.67	22.32
Meghalaya	2.19	8.86	4.06	23.42	4.91	22.84	4.86	22.61	4.68	20.75	4.55	22.09
Mizoram	3.76	38.18	13.45	50.02	10.22	65.62	13.37	78.78	12.59	76.90	13.01	77.61
Nagaland	2.60	11.61	6.25	23.13	3.30	24.37	2.41	17.83	2.00	14.84	2.62	17.18
Orissa	1.35	11.98	2.60	17.02	3.63	21.61	3.75	20.15	4.41	19.32	4.35	19.06
Pondicherry	4.16	16.64	14.16	25.21	8.94	27.17	12.63	25.92	12.19	25.00	12.04	24.71
Punjab	1.07	18.57	13.48	20.39	3.30	20.74	3.18	18.74	3.06	18.05	3.02	17.82
Rajasthan	0.87	7.95	1.92	15.62	4.05	23.57	4.16	24.18	3.94	23.35	3.86	22.90
Sikkim	4.74	14.54	5.82	27.05	6.23	38.44	5.60	34.29	5.12	31.36	4.97	30.44
Tamil Nadu	1.25	11.81	2.14	20.77	3.90	23.60	4.00	24.21	4.07	24.58	4.09	24.71
Tripura	1.53	7.17	3.82	12.83	2.35	22.69	2.20	21.49	2.23	20.64	2.20	20.43
Uttar Pradesh	1.02	12.30	1.90	16.76	3.28	18.07	0.09	0.46	0.01	0.05	0.005	0.02
Uttaranchal	-	-	-	-	-	-	-	-	-	-	-	-
West Bengal	0.83	7.72	2.81	17.04	3.13	15.95	2.35	14.66	2.23	14.39	2.20	14.15
All India	**1.11**	**11.03**	**2.44**	**17.09**	**3.30**	**20.91**	**3.23**	**19.86**	**3.17**	**18.95**	**3.10**	**18.63**

Sources: Health Information of India,CBHI,GOI, respective years;Census of India, Population Profiles(India,States and Union Territories), Office of the RGI,2004

Note : NA - not available; Population figures for the year 1986,1996,1999,2000 are calculated on the bases of growth rate; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent state

2.5: Beds: All India (per 100,000 population)

State/Year	1981			1986			1991		
	Rural	**Urban**	**Total**	**Rural**	**Urban**	**Total**	**Rural**	**Urban**	**Total**
Andaman & Nicobar	232.91	550.03	316.31	180.94	659.82	310.36	99.17	723.10	265.80
Andhra Pradesh	9.43	242.06	63.68	8.64	212.49	60.89	12.53	205.23	64.36
Arunachal Pradesh	105.01	1047.60	166.81	53.34	550.82	113.47	75.07	530.61	133.36
Assam	12.13	382.09	48.69	15.33	399.49	56.79	20.00	350.43	56.67
Bihar	8.86	253.25	39.33	14.97	255.24	45.93	3.06	228.44	32.69
Chandigarh	104.28	264.87	254.64	56.58	253.23	236.10	0	260.49	233.64
Chattisgarh	-	-	-	-	-	-	-	-	-
Dadra & Nagar Haveli	51.67	0	48.23	48.80	0	44.96	52.07	0	47.66
Delhi	13.71	227.12	211.61	10.51	215.04	196.85	16.02	216.25	196.08
Goa,Daman & Diu	68.99	707.20	275.60	118.19	474.65	254.24	NA	NA	NA
Gujarat	10.48	290.92	97.71	13.37	305.75	110.55	31.27	361.85	145.28
Haryana	10.05	248.71	62.27	5.14	197.81	50.97	4.52	168.79	44.98
Himachal Pradesh	26.70	749.76	81.76	17.14	879.67	89.08	13.39	753.12	77.65
Jammu & Kashmir	5.10	308.39	68.94	6.70	456.98	109.59	8.18	421.39	106.65
Jharkhand	-	-	-	-	-	-	-	-	-
Karnataka	13.99	264.10	86.25	13.95	253.37	86.24	10.81	249.12	84.50
Kerala	112.58	450.45	175.92	149.22	444.79	219.72	202.36	429.94	262.43
Lakshadweep(I)	231.27	0	124.23	316.59	0	151.19	309.83	0	135.38
Madhya Pradesh	3.21	146.28	32.24	2.97	144.74	34.37	43.33	21.38	38.25
Maharashtra	13.52	306.69	116.22	17.44	323.65	132.01	25.98	331.57	144.21
Manipur	38.45	230.12	89.10	30.50	211.58	79.90	57.45	137.45	79.47
Meghalaya	7.13	592.54	112.89	6.09	703.97	135.26	0	495.38	92.12
Mizoram	86.03	276.65	133.06	61.85	390.32	206.26	95.75	3120	195.43
Nagaland	136.86	410.03	179.24	50.51	403.14	109.42	38.45	380.84	97.39
Orissa	10.16	293.57	43.59	9.80	266.61	42.68	12.46	262.67	45.93
Pondicherry	25.66	717.30	387.28	30.73	568.20	360.43	13.07	534.83	347.00
Punjab	68.51	250.72	118.95	73.96	229.79	173.06	54.28	213.46	101.32
Rajasthan	5.93	225.63	52.16	5.98	223.27	54.35	3.11	181.81	43.99
Sikkim	72.06	391.51	161.33	0	1181.84	163.51	0	1418.69	129.16
Tamil Nadu	12.46	233.29	85.23	14.91	226.44	86.26	11.89	234.23	87.82
Tripura	5.25	492.09	58.74	7.40	343.61	54.93	11.77	297.83	55.53
Uttar Pradesh	7.83	219.01	45.74	7.59	188.20	42.23	6.93	164.04	38.10
Uttaranchal	-	-	-	-	-	-	-	-	-
West Bengal	23.69	270.05	88.89	17.59	272.33	86.67	15.41	250.55	80.03
All India	**16.51**	**261.56**	**73.64**	**18.09**	**256.74**	**77.41**	**22.21**	**241.04**	**78.46**

Sources: Health Information of India,CBHI,GOI, respective years;Census of India, Population Profiles(India,States and Union Territories), Office of the RGI,2004

Note: Beds includes Hospital and Dispensaries bed of government, local bodies, private and voluntary organisation; NA - not available; Population figures for the year 1986,1996,1999,2000 are calculated on the bases of growth rate; Reduction in beds (from 1999) is due to exclusion of CHC's, Sanatorium and TB clinics; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent state

(Cont...)

2.5: Beds: All India (per 100,000 population)

State/Year	1996			1999			2001		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
Andaman & Nicobar	154.42	567.50	281.13	66.03	490.21	207.17	64.60	478.49	199.63
Andhra Pradesh	19.49	318.38	74.08	26.12	651.48	117.04	25.61	2671.44	121.39
Arunachal Pradesh	203.24	449.01	250.67	194.13	331.90	231.42	190.10	360.71	225.51
Assam	18.43	290.47	51.60	17.54	259.54	48.78	17.16	253.49	47.66
Bihar	4.04	259.63	34.46	4.05	278.86	34.87	4.06	301.41	35.16
Chandigarh	0	71.23	63.92	0	255.39	229.29	0	249.72	224.18
Chattisgarh	-	-	-	-	-	-	-	-	-
Dadra & Nagar Haveli	NA	235.34	63.86	72.87	0	55.07	22.90	285.36	69.77
Delhi	4.96	171.49	158.56	NA	NA	NA	NA	NA	NA
Goa,Daman & Diu	176.70	361.74	261.59	93.31	485.74	283.58	91.01	472.30	275.32
Gujarat	24.31	391.33	157.35	23.09	355.14	147.12	22.58	346.21	143.49
Haryana	4.07	135.14	40.03	3.78	113.22	35.82	3.69	102.35	32.23
Himachal Pradesh	13.67	861.53	92.93	13.40	846.24	94.77	20.50	881.83	104.90
Jammu & Kashmir	118.44	6.35	91.03	1.21	81.26	21.10	1.18	79.31	20.56
Jharkhand	-	-	-	-	-	-	-	-	-
Karnataka	10.84	222.83	80.23	11.16	204.66	76.71	10.96	199.42	75.01
Kerala	196.28	415.69	253.68	321.33	287.16	312.45	NA	NA	308.17
Lakshadweep(I)	243.82	0	124.25	0	255.10	118.02	0	259.58	115.42
Madhya Pradesh	12.96	76.40	28.65	13.47	75.47	29.43	NA	67.75	63.76
Maharashtra	20.05	193.58	91.19	15.70	240.22	110.99	15.38	234.29	107.10
Manipur	22.43	138.80	74.97	35.61	183.99	71.11	37.50	180.39	71.38
Meghalaya	0	470.37	90.46	0	412.28	80.9	0	273.72	53.60
Mizoram	91.43	288.22	186.65	29.75	236.99	132.94	11.20	NA	116.10
Nagaland	23.45	278.46	67.37	16.35	242.70	55.35	16.39	243.30	55.48
Orissa	17.86	201.48	44.17	5.36	196.49	34.04	5.25	192.45	33.32
Pondicherry	12.31	471.65	313.33	0	515.21	342.46	0	595.73	396.57
Punjab	47.18	181.25	90.43	45.39	162.47	85.28	44.56	158.66	83.26
Rajasthan	2.96	171.83	42.13	2.73	158.65	39.20	2.13	125.79	31.05
Sikkim	0	1151.37	120.23	0	1338.22	151.72	0	1336.23	147.92
Tamil Nadu	12.19	188.80	82.85	12.38	165.89	80.01	12.52	162.59	78.61
Tripura	14.61	296.42	60.63	14.41	280.38	59.59	6.20	294.60	55.40
Uttar Pradesh	0.18	144.91	1.66	0.02	134.51	0.25	0.59	131.11	3.92
Uttaranchal	-	-	-	-	-	-	-	-	-
West Bengal	11.83	236.78	74.29	8.92	222.03	68.46	8.33	224.10	68.68
All India	**19.73**	**202.34**	**69.02**	**21.27**	**193.05**	**70.94**	**9.85**	**178.79**	**69.34**

Sources: Health Information of India,CBHI,GOI, respective years;Census of India, Population Profiles(India,States and Union Territories), Office of the RGI,2004

Note: Beds includes Hospital and Dispensaries bed of government, local bodies, private and voluntary organisation; NA - not available; Population figures for the year 1986,1996,1999,2000 are calculated on the bases of growth rate; Reduction in beds (from 1999) is due to exclusion of CHC's, Sanatorium and TB clinics; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent state

3.1: Revenue Expenditure on Health

(Rs. in Millions)

State/Year	1981	1987	1991	1996	1998	2001	2003	2005
Andhra Pradesh	1121.00	2875.29	3268.04	6049.33	8480.45	12860.91	13440.00	16400.00
Arunachal Pradesh	58.00	189.82	170.62	325.24	418.13	536.10	587.30	670.80
Assam	357.00	1222.98	1103.10	2175.10	2526.79	3461.82	3240.00	6530.00
Bihar	675.00	1997.02	2713.33	4971.43	5800.77	6801.75	2910.00	7010.00
Chhattisgarh	-	-	-	-	-	771.20	2520.00	3280.00
Goa,Daman & Diu	62.00	191.09	238.38	416.85	567.28	823.64	920.80	1106.30
Gujarat	736.00	2280.73	2510.76	4678.70	6256.43	8937.52	8470.00	8950.00
Haryana	367.00	897.4	819.28	1600.63	2230.81	2909.09	3430.00	3920.00
Himachal Pradesh	240.00	524.11	667.33	1287.13	1753.63	2630.60	2776.40	2928.60
Jammu & Kashmir	259.00	671.33	756.28	1766.09	2292.14	3610.48	4271.70	4491.20
Jharkhand	-	-	-	-	-	622.03	3570.00	3570.00
Karnataka	705.00	1922.12	2430.15	4964.56	6243.66	9035.63	9540.00	10650.00
Kerala	644.00	1437.51	2127.69	3965.82	4890.66	6738.91	7590.00	9870.00
Madhya Pradesh	1175.00	2961.44	2745.42	4629.64	5849.83	8319.9	7610.00	9270.00
Maharashtra	1615.00	5131.96	4774.24	8898.22	10967.12	15953.42	16550.00	18650.00
Manipur	60.00	213.65	188.20	366.81	458.49	663.70	596.90	867.90
Meghalaya	74.00	128.75	207.62	351.65	459.46	705.10	818.70	919.40
Mizoram	65.00	196.96	149.18	277.76	NA	538.50	663.40	580.30
Nagaland	106.00	280.28	245.92	504.50	573.14	764.36	808.90	718.60
Orissa	549.00	1268.27	1350.29	2548.28	2969.79	4331.06	4600.00	6460.00
Pondicherry	43.00	112.81	181.88	373.89	484.56	804.16	NA	NA
Punjab	489.00	1202.01	1662.89	2568.54	3832.28	6375.88	6100.00	7740.00
Rajasthan	797.00	2189.83	2506.66	5146.32	6253.99	8775.99	8990.00	11240.00
Sikkim	17.00	52.14	79.31	191.32	212.67	317.30	399.10	546.40
Tamil Nadu	1048.00	2829.29	3790.06	6981.77	8995.58	11604.94	11880.00	13820.00
Tripura	41.00	133.62	277.09	401.29	579.69	827.34	841.40	966.00
Union Government	1082.00	1671.28	5523.53	8787.91	14033.92	24840	29900.00	39000.00
Uttar Pradesh	1488.00	3755.17	6214.30	10051.86	3223.12	14102.2	15650.00	22070.00
Uttaranchal	-	-	-	-	-	342.20	1580.00	2540.00
West Bengal	1344.00	2731.26	4330.13	6175.02	944.48	13766.15	13290.00	2670.00
All India	**15217.00**	**39068.12**	**51031.68**	**90455.66**	**101298.90**	**178900.00**	**189130.00**	**235710.00**

Sources: Upto 1987 is combined Finance and Revenue Accounts Comptroller and Auditor General of India GOI,respective year; For year 2001 is State Finance A Study of Budget of 2002-03, RBI; For year 2003 and 2005 is Public Finance November 2004 ,CMIE.

Note: 2005 Budget estimates; NA - not available; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent state

3.2: Capital Expenditure on Health

(Rs. in Millions)

State/Year	1981	1987	1991	1996	1998	2001	2003	2005
Andhra Pradesh	25.00	53.67	29.90	11.89	26.11	479.40	330.00	590.00
Arunachal Pradesh	2.00	33.30	16.60	44.19	64.50	62.70	50.70	50.40
Assam	40.00	163.06	179.29	90.51	36.62	93.27	60.00	290.00
Bihar	70.00	631.81	63.89	0.54	12.88	NA	130.00	80.00
Chhattisgarh	-	-	-	-	-	20.50	200.00	500.00
Goa,Daman & Diu	15.00	118.32	87.57	78.92	37.01	39.85	45.60	46.30
Gujarat	9.00	394.74	13.26	30.15	141.09	251.67	170.00	190.00
Haryana	29.00	42.36	51.78	66.33	94.51	73.62	80.00	150.00
Himachal Pradesh	19.00	230.51	56.11	76.95	146.58	366.40	198.00	574.40
Jammu & Kashmir	49.00	541.85	133.09	184.27	233.91	215.61	357.10	505.30
Jharkhand	-	-	-	-	-	NA	530.00	440.00
Karnataka	9.00	165.65	65.65	169.20	836.90	1017.56	510.00	430.00
Kerala	24.00	399.79	92.20	206.27	213.78	167.91	450.00	300.00
Madhya Pradesh	15.00	127.81	70.61	176.01	273.14	296.00	190.00	390.00
Maharashtra	55.00	182.06	209.22	162.87	237.51	389.44	960.00	530.00
Manipur	7.00	134.32	14.58	16.59	10.16	2.50	26.80	76.50
Meghalaya	3.00	144.93	33.68	90.46	97.13	99.20	118.90	137.90
Mizoram	1.00	54.10	5.90	13.59	NA	100.90	41.00	1.80
Nagaland	8.00	76.74	56.37	52.68	64.24	129.35	82.80	458.00
Orissa	16.00	66.13	55.53	104.51	111.80	258.31	380.00	640.00
Pondicherry	NA	8.62	1.56	2.04	6.01	11.00	NA	NA
Punjab	34.00	66.64	33.88	35.76	28.35	25.48	0.00	260.00
Rajasthan	22.00	936.42	72.09	606.03	911.66	253.88	140.00	240.00
Sikkim	8.00	20.74	21.76	83.45	28.39	29.90	33.30	20.80
Tamil Nadu	58.00	126.68	105.08	201.18	394.65	270.49	480.00	910.00
Tripura	3.00	78.92	26.09	23.65	31.07	35.50	119.60	239.10
Union Government	608.00	301.82	210.68	293.17	525.82	277.36	380.00	500.00
Uttar Pradesh	75.00	286.86	545.55	541.27	928.15	488.50	140.00	1780.00
Uttaranchal	-	-	-	-	-	0	250.00	660.00
West Bengal	65.00	94.64	269.91	123.92	NA	1293.80	420.00	950.00
All India	**1203.00**	**5482.49**	**2521.83**	**3486.40**	**5491.97**	**7632.40**	**8010.00**	**13310.00**

Sources: Upto 1987 is combined Finance and Revenue Accounts Comptroller and Auditor General of India GOI,respective year; For year 2001 is State Finance A Study of Budget of 2002-03, RBI; For year 2003 and 2005 is Public Finance November 2004 ,CMIE.

Note: 2005 Budget estimates; NA - not available; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent state

3.3: Health Expenditure as percentage of Total Expenditure

State/Year	1981	1987	1991	1996	1998	2001	2003	2005
Andhra Pradesh	5.80	7.88	5.53	4.65	5.44	4.74	3.96	3.53
Arunachal Pradesh	5.91	9.77	4.89	4.66	5.04	NA	4.68	4.45
Assam	3.96	10.21	NA	5.84	5.87	4.66	3.69	3.06
Bihar	3.78	8.49	5.10	5.79	5.24	4.01	3.17	3.24
Chhattisgarh	-	-	-	-	-	4.13	3.99	3.74
Goa,Daman & Diu	7.19	13.45	8.70	5.39	4.89	3.90	4.02	3.27
Gujarat	4.38	9.58	5.03	4.70	4.57	3.38	3.21	3.05
Haryana	4.33	8.25	4.11	2.95	3.27	3.26	2.88	2.59
Himachal Pradesh	6.63	13.50	3.32	6.16	7.04	5.64	4.50	5.08
Jammu & Kashmir	3.79	12.50	5.56	5.50	4.97	4.89	5.30	4.78
Jharkhand	-	-	-	-	-	NA	4.18	3.65
Karnataka	3.79	8.23	5.40	5.28	5.85	5.11	4.17	3.49
Kerala	6.56	9.85	7.21	6.53	5.68	5.25	4.74	4.71
Madhya Pradesh	4.94	10.11	5.16	4.81	4.57	5.09	4.11	3.39
Maharashtra	4.85	9.38	5.13	4.56	4.29	3.87	3.71	3.51
Manipur	2.60	12.61	4.38	4.83	4.48	4.82	2.89	3.72
Meghalaya	6.25	13.25	6.26	6.19	6.86	5.65	5.88	5.23
Mizoram	7.89	11.85	3.50	4.18	NA	4.96	5.01	3.96
Nagaland	5.39	10.88	5.96	5.95	5.68	4.87	4.65	4.68
Orissa	5.17	8.50	5.13	5.16	4.82	4.15	3.75	3.90
Pondicherry	9.05	10.01	7.82	0.03	0.04	NA	NA	NA
Punjab	3.67	10.52	6.73	4.62	4.93	4.54	3.54	3.10
Rajasthan	4.85	14.48	6.50	5.70	7.97	5.16	4.24	3.94
Sikkim	4.49	6.44	7.89	2.72	1.92	3.67	2.03	2.56
Tamil Nadu	6.18	10.04	6.91	6.29	6.28	4.86	4.10	4.20
Tripura	2.51	7.37	5.18	14.74	4.79	4.04	3.79	3.79
Union Government	0.22	0.29	0.56	0.46	0.52	0.77	0.76	0.83
Uttar Pradesh	4.69	9.08	6.31	6.03	1.74	3.98	3.75	4.49
Uttaranchal	-	-	-	-	-	3.08	3.77	4.34
West Bengal	6.30	9.73	8.37	6.43	NA	5.63	4.95	0.93
All India	**1.52**	**3.95**	**2.93**	**2.01**	**1.75**	**2.77**	**2.41**	**2.42**

Sources: Upto 1987 is combined Finance and Revenue Accounts Comptroller and Auditor General of India GOI,respective year; For year 2001 is State Finance A Study of Budget of 2002-03, RBI; For year 2003 and 2005 is Public Finance November 2004 ,CMIE.

Note: 2005 Budget estimates; NA - not available; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent state

3.4: Total Revenue Expenditure, State and Union

(Rs. in Millions)

State/Year	1981	1987	1991	1996	1998	2001	2003	2005
Andhra Pradesh	17263.00	32444.98	55047.85	106136.8	145442.90	230700.00	260570.00	341520.00
Arunachal Pradesh	820.00	1663.04	2582.21	5072.79	6646.24	9084.50	10313.90	11650.60
Assam	9276.00	11603.86	NA	35757.62	40385.52	64170.00	71120.00	149830.00
Bihar	17173.00	25277.37	49523.76	82067.27	105304.40	143450.00	73820.00	163410.00
Chhattisgarh	-	-	-	-	-	16120.00	55300.00	76060.00
Goa,Daman & Diu	843.00	1719.87	2754.05	7849.88	11219.24	19619.70	20000.00	26350.60
Gujarat	14995.00	24656.49	43311.83	87660.97	121431.40	220410.00	214400.00	237860.00
Haryana	8128.00	9673.64	19330.73	53615.55	66171.67	71810.00	93420.00	116840.00
Himachal Pradesh	3380.00	4640.69	9014.75	19043.48	26991.40	43761.80	51411.60	57910.70
Jammu & Kashmir	6833.00	7287.06	12477.17	28149.55	41905.21	66853.30	64126.80	79676.30
Jharkhand	-	-	-	-	-	-	77370.00	78440.00
Karnataka	17127.00	22047.28	39710.85	84811.81	108902.1	166850.00	188140.00	254370.00
Kerala	8965.00	16547.67	28249.51	58263.77	82411.21	118780.00	147560.00	189710.00
Madhya Pradesh	21485.00	25481.01	47461.15	91308.69	117264.40	149860.00	145600.00	182610.00
Maharashtra	30944.00	49807.58	87536.73	171683.9	228965.10	374010.00	404740.00	479040.00
Manipur	2239.00	1980.55	3358.61	6187.72	7924.43	11308.80	14151.00	16868.30
Meghalaya	1021.00	1552.76	3107.74	5803.94	6851.09	10794.70	12045.50	16171.30
Mizoram	704.00	1798.21	3040.31	5647.16	NA	10216.10	11309.60	11837.40
Nagaland	1857.00	2687.00	4204.72	8344.83	9881.77	14202.40	15062.80	17533.10
Orissa	9057.00	12479.55	21905.33	46978.17	55351.67	88290.00	100150.00	140840.00
Pondicherry	419.00	1029.38	2042.05	4217.61	5640.47	NA	NA	NA
Punjab	13463.00	12020.88	25199.05	56349.93	78352.03	117130.00	148250.00	191210.00
Rajasthan	15102.00	18667.08	34799.45	83315.56	89860.64	150350.00	170160.00	195880.00
Sikkim	439.00	812.64	1281.48	8811.83	12581.94	7633.10	18826.20	17548.70
Tamil Nadu	17040.00	27757	56382.28	109105.70	149508.60	217520	256880.00	281290.00
Tripura	1489.00	2295.31	4970.32	1048.56	10603.89	17340.30	19607.20	22157.00
Union Government	737004.00	579112.30	1029642	1983023	2777323.00	2778390.00	3396270.00	3854930.00
Uttar Pradesh	28511.00	43491.50	95383.57	175558.60	221950.30	310330.00	329390.00	427860.00
Uttaranchal	-	-	-	-	-	9140.00	36760.00	58640.00
West Bengal	21315.00	26974.85	51281.19	86262.66	113218.80	221030.00	231610.00	277980.00
All India	**1006892.00**	**965509.60**	**1733598.00**	**3412078.00**	**4642089.00**	**5693610.00**	**6686970.00**	**8019680.00**

Sources: Upto 1987 is combined Finance and Revenue Accounts Comptroller and Auditor General of India GOI,respective year; For year 2001 is State Finance A Study of Budget of 2002-03, RBI; For year 2003 and 2005 is Public Finance November 2004 ,CMIE.

Note: 2005 Budget estimates; NA - not available; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent state

3.5: Total Capital Expenditure, State and Union

(Rs. in Millions)

State/Year	1981	1987	1991	1996	1998	2001	2003	2005
Andhra Pradesh	2480.00	4703.79	4619.07	24221.96	10860.05	50490.00	86950.00	139910.00
Arunachal Pradesh	195.00	621.46	1245.40	2862.03	2935.69	2978.70	3318.80	4549.40
Assam	755.00	1968.59	NA	3006.94	3293.15	12140.00	18240.00	72970.00
Bihar	2540.00	5704.45	4936.20	3819.68	5602.69	26010.00	22010.00	55440.00
Chhattisgarh	-	-	-	-	-	3050.00	12920.00	24950.00
Goa, Daman & Diu	228.00	580.61	993.01	1355.76	1142.59	2530.00	4050.00	8930.00
Gujarat	2026.00	3264.50	6893.35	12606.47	18591.96	51340.00	54810.00	61720.00
Haryana	1023.00	1722.55	1861.63	2858.74	4922.07	19780.00	28250.00	40090.00
Himachal Pradesh	526.00	949.72	12768.07	3084.56	0	9387.50	14752.70	11025.50
Jammu & Kashmir	1304.00	2420.42	3518.36	7294.24	8894.69	11437.30	23248.30	24910.60
Jharkhand	-	-	-	-	-	-	20720.00	31320.00
Karnataka	1717.00	3331.28	6548.08	12404.50	12099.53	29790.00	52600.00	63360.00
Kerala	1219.00	2110.45	2559.63	5634.66	7388.66	12710.00	22110.00	26140.00
Madhya Pradesh	2608.00	5074.63	7122.56	8603.45	16778.00	19380.00	44290.00	102410.00
Maharashtra	3486.00	6825.65	9639.43	27034.81	32117.89	48070.00	67430.00	68090.00
Manipur	336.00	779.07	1275.99	1752.02	2545.61	2502.20	7422.90	8494.70
Meghalaya	211.00	513.24	749.46	1341.51	1258.79	3444.00	3898.90	4050.90
Mizoram	133.00	321.31	1392.00	1329.50	NA	2663.30	2738.70	2865.90
Nagaland	257.00	595.75	869.54	1014.06	1336.84	4152.30	4106.10	7588.60
Orissa	1878.00	3227.28	5510.61	4469.07	8560.27	22190.00	32530.00	41160.00
Pondicherry	56.00	183.13	304.98	1098124	1281973.00	NA	NA	NA
Punjab	781.00	38.52	0	0	0	23980.00	24090.00	67000.00
Rajasthan	1787.00	2925.89	4900.52	17574.66	0	24590.00	45260.00	95630.00
Sikkim	118.00	318.42	0	1271.89	0	1839.20	2493.90	4599.20
Tamil Nadu	851.00	1689.60	0	5151.00	0	26850.00	44690.00	69560.00
Tripura	262.00	588.35	882.28	1833.86	2152.60	4010.10	5761.90	9672.40
Union Govt	39827.00	109913.10	NA	NA	NA	477530.00	607700.00	923360.00
Uttar Pradesh	4813.00	1018.94	11775.77	NA	16676.34	56490.00	91480.00	102980.00
Uttaranchal	-	-	-	-	-	1970.00	11730.00	15020.00
West Bengal	1067.00	2068.99	3686.21	11642.77	6337.93	46370.00	45510.00	111350.00
All India	**72484.00**	**163459.70**	**94052.15**	**1260292.00**	**1445468.00**	**1034300.00**	**1495660.00**	**2279090.00**

Sources: Upto 1987 is combined Finance and Revenue Accounts Comptroller and Auditor General of India GOI,respective year; For year 2001 is State Finance A Study of Budget of 2002-03, RBI; For year 2003 and 2005 is Public Finance November 2004 ,CMIE.

Note: 2005 Budget estimates; NA - not available; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent state

3.6: Revenue Receipts from Public Health and Family Welfare as Percent of Revenue Health Expenditure

State/Year	1981	1987	1991	1996	1998	1999
Andhra Pradesh	4.42	1.58	0.31	0.13	0.19	0.13
Arunachal Pradesh	1.83	0.53	0.02	0.06	0.05	NA
Assam	0.97	0.18	0.10	0.07	0	0.01
Bihar	1.34	1.68	0.35	0.27	0.27	0.16
Chhattisgarh	-	-	-	-	-	-
Goa,Daman & Diu	23.84	16.49	0.10	0.68	0.56	NA
Gujarat	4.03	0.60	0.89	0.23	0.17	NA
Haryana	1.51	2.29	0.12	0.79	0.11	0.15
Himachal Pradesh	1.08	2.07	0.25	0.09	0.04	0.03
Jammu & Kashmir	1.98	1.15	0.02	0.02	0.07	0
Jharkhand	-	-	-	-	-	-
Karnataka	1.04	1.15	0.23	0.09	0.12	1.15
Kerala	5.00	0.13	0.16	0.08	0.10	0.11
Madhya Pradesh	2.36	2.50	0.52	0.48	1.02	0.21
Maharashtra	1.86	0.95	0.70	0.74	0.61	0.73
Manipur	1.58	0.79	1.96	0.13	0.04	NA
Meghalaya	0.96	1.63	1.32	0.85	0.16	NA
Mizoram	0.17	0.69	0.32	0.10	NA	NA
Nagaland	0.88	0.39	0.11	0	0	NA
Orissa	1.77	2.73	0.20	0.12	0.17	0.11
Pondicherry	4.07	2.12	0.15	0.06	0.07	0.05
Punjab	2.63	1.88	1.28	0.41	0.18	0.07
Rajasthan	17.7	15.06	0.05	0.09	0.06	0.02
Sikkim	0.29	0.50	0	0.31	0.12	0.12
Tamil Nadu	1.10	1.23	0.37	0.28	0.2	0.20
Tripura	0.73	0.78	0.15	0.02	0.03	NA
Union Government	2.22	4.44	1.58	1.79	2.84	1.22
Uttar Pradesh	0.37	0.43	0.31	0.44	1.83	NA
Uttaranchal	-	-	-	-	-	-
West Bengal	0.60	0.33	0.14	0.05	0.37	0.02
All India	**2.86**	**2.16**	**0.52**	**0.43**	**0.67**	**0.35**

Sources: For 1981 and 1987 is combined Finance and Revenue Accounts Comptroller and Auditor General of India GOI,respective year. Other years -Demand for Grants, respective States.

Note: NA - not available; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent state

3.7: Revenue Receipts from Public Health and Family Welfare

(Rs. in Millions)

State/Year	1981	1987	1991	1996	1998	1999
Andhra Pradesh	49.50	45.49	10.20	8.04	16.03	13.66
Arunachal Pradesh	1.06	1.01	0.04	0.18	0.19	NA
Assam	3.45	2.26	1.11	1.46	0.05	0.13
Bihar	9.03	33.64	9.42	13.27	15.75	10.76
Chhattisgarh	-	-	-	-	-	-
Goa,Daman & Diu	14.78	31.52	0.23	2.84	3.19	NA
Gujarat	29.63	13.77	22.42	10.74	10.47	NA
Haryana	5.56	20.53	0.98	12.69	2.54	4.38
Himachal Pradesh	2.58	10.87	1.64	1.18	0.67	0.74
Jammu & Kashmir	5.13	7.72	0.17	0.36	1.53	0.01
Jharkhand	-	-	-	-	-	-
Karnataka	7.30	22.04	5.51	4.30	7.40	10.65
Kerala	32.19	1.88	3.3	3.27	4.85	5.91
Madhya Pradesh	27.77	73.89	14.28	22.04	59.52	17.07
Maharashtra	30.01	48.58	33.57	65.89	67.37	84.70
Manipur	0.95	1.69	3.69	0.48	0.19	NA
Meghalaya	0.71	2.10	2.75	2.98	0.74	NA
Mizoram	0.11	1.35	0.47	0.28	NA	NA
Nagaland	0.93	1.08	0.26	0.01	0	NA
Orissa	9.72	34.59	2.68	2.99	4.95	4.35
Pondicherry	1.75	2.39	0.28	0.21	0.36	0.28
Punjab	12.87	22.64	21.23	10.50	7.02	3.47
Rajasthan	141.07	329.87	1.26	4.39	3.72	1.76
Sikkim	0.05	0.26	0	0.60	0.25	0.51
Tamil Nadu	11.51	34.81	14.17	19.39	17.83	22.41
Tripura	0.3	1.04	0.42	0.07	0.16	NA
Union Government	24.01	74.24	87.34	157.08	397.88	216.05
Uttar Pradesh	5.45	16.20	19.31	44.32	58.89	NA
Uttaranchal	-	-	-	-	-	-
West Bengal	8.09	8.94	6.20	2.92	3.54	2.71
All India	**435.51**	**844.40**	**262.93**	**392.48**	**682.09**	**386.85**

Sources: For 1981 and 1987 is combined Finance and Revenue Accounts Comptroller and Auditor General of India GOI,respective year. Other years -Demand for Grants, respective States.

Note: NA - not available; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent state

3.8: Revenue Receipts from Medical as Percent of Revenue Health Expenditure

State/Year	1981	1987	1991	1996	1998	1999
Andhra Pradesh	4.37	2.71	3.28	2.23	2.52	2.26
Arunachal Pradesh	1.72	0.09	0.20	0.15	0.51	NA
Assam	1.12	0.83	1.68	1.17	1.08	1.53
Bihar	5.78	2.64	2.41	1.84	1.84	2.09
Chhattisgarh	-	-	-	-	-	-
Goa,Daman & Diu	1.61	0.63	3.54	5.26	5.14	NA
Gujarat	7.34	4.88	8.33	5.96	7.34	NA
Haryana	7.63	4.28	7.64	6.40	9.26	5.89
Himachal Pradesh	0.83	0.81	1.94	1.27	1.30	1.54
Jammu & Kashmir	0.77	1.05	0.6	0.78	1.05	1.08
Jharkhand	-	-	-	-	-	-
Karnataka	5.25	4.26	4.31	4.30	4.95	0
Kerala	5.90	3.92	4.13	5.93	4.49	3.93
Madhya Pradesh	0.85	1.18	2.58	1.88	2.44	1.29
Maharashtra	0.62	0.68	1.48	0.98	1.30	0.91
Manipur	16.67	16.31	37.67	23.79	31.13	NA
Meghalaya	0	0.51	2.01	1.19	0.40	NA
Mizoram	0	0.07	0.78	0.54	NA	NA
Nagaland	0	0.44	1.58	0.90	0.51	NA
Orissa	0	0.48	0.02	0.01	0.01	0
Pondicherry	6.98	2.02	2.55	2.68	2.60	2.98
Punjab	1.43	2.33	1.85	1.35	1.62	1.56
Rajasthan	3.76	2.36	3.66	2.19	3.38	1.88
Sikkim	194.12	82.45	80.97	86.16	79.04	35.30
Tamil Nadu	0	0	0.01	0.03	0.01	0.04
Tripura	0	0.26	0.94	1.02	0.63	NA
Union Government	3.23	4.11	1.97	3.09	2.40	2.37
Uttar Pradesh	3.36	1.00	2.53	1.37	6.76	NA
Uttaranchal	-	-	-	-	-	-
West Bengal	8.63	4.67	4.95	3.61	40.88	3.11
All India	**3.67**	**2.34**	**3.09**	**2.62**	**3.41**	**2.10**

Sources: For 1981 and 1987 is combined Finance and Revenue Accounts Comptroller and Auditor General of India GOI,respective year. Other years -Demand for Grants, respective States.

Note: NA - not available; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent state

3.9: Central Government Health Scheme (CGHS)/ Employees State Insurance Schemes (ESIS) Revenue Receipt

(Rs. in Millions)

State/Year	1981	1987	1991	1996	1998	1999
Andhra Pradesh	41.00	68.29	90.18	101.01	176.57	192.51
Arunachal Pradesh	NA	0	0	0	0	NA
Assam	NA	0	0	0	0	0
Bihar	NA	7.83	0	25.95	38.60	84.49
Chhattisgarh	-	-	-	-	-	-
Goa,Daman & Diu	NA	0.28	6.38	13.04	11.48	NA
Gujarat	47.00	19.40	116.44	193.68	380.09	NA
Haryana	26.00	17.71	51.75	87.66	183.06	149.29
Himachal Pradesh	NA	0	4.50	2.65	2.23	7.15
Jammu & Kashmir	NA	0	0	0	0	0
Jharkhand	-	-	-	-	-	-
Karnataka	24.00	23.56	65.80	172.57	259.14	NA
Kerala	26.00	41.04	66.05	153.27	183.55	173.78
Madhya Pradesh	NA	14.75	15.83	62.97	20.25	0.70
Maharashtra	158.00	215.02	195.33	358.82	543.80	574.28
Manipur	NA	0	0	0	0	NA
Meghalaya	NA	0	0.32	0.45	NA	NA
Mizoram	NA	0	0.22	0.17	NA	NA
Nagaland	NA	0	0	0	0	NA
Orissa	5.00	24.25	23.31	26.53	48.24	64.53
Pondicherry	2.00	1.16	2.87	7.12	6.80	12.24
Punjab	18.00	7.15	30.48	71.5	91.13	121.20
Rajasthan	25.00	33.85	41.70	111.66	143.45	NA
Sikkim	NA	0	0	0	0	0
Tamil Nadu	10.00	119.35	154.25	275.02	340.47	548.44
Tripura	NA	0	0	0	0	NA
Union Government	20.00	36.68	36.87	135.36	172.22	247.73
Uttar Pradesh	36.00	0.02	79.31	59.28	175.22	NA
Uttaranchal	-	-	-	-	-	-
West Bengal	100.00	100.86	176.05	11.86	NA	80.94
All India	**538.00**	**731.20**	**1157.64**	**1870.57**	**2776.30**	**2257.28**

Sources: For 1981 and 1987 is combined Finance and Revenue Accounts Comptroller and Auditor General of India GOI,respective year. Other years -Demand for Grants, respective States.

Note: NA - not available; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent state

3.10: Receipts from Services and Fees (Medical)

(Rs. in Millions)

State/Year	1981	1987	1991	1996	1998	1999
Andhra Pradesh	2.00	0.07	2.24	3.32	4.17	1.98
Arunachal Pradesh	NA	0	0.14	0	0	NA
Assam	NA	0	0	0	5.04	0
Bihar	26.00	0	0.21	0.41	0.42	1.20
Chhattisgarh	-	-	-	-	-	-
Goa,Daman & Diu	NA	0	0.61	0.99	3.51	NA
Gujarat	2.00	0	5.64	11.21	13.10	NA
Haryana	NA	0	1.19	1.80	2.20	3.05
Himachal Pradesh	2.00	0	1.51	5.99	6.88	7.19
Jammu & Kashmir	NA	0	0	0	0	0
Jharkhand	-	-	-	-	-	-
Karnataka	6.00	0	1.78	1.15	0.26	NA
Kerala	5.00	0.51	5.56	56.92	3.24	2.93
Madhya Pradesh	1.00	0	0.85	1.11	0.95	1.43
Maharashtra	7.00	0.03	32.11	57.52	57.8	57.60
Manipur	NA	0	0.26	2.82	1.21	NA
Meghalaya	NA	0	0.61	1.21	-1.00	NA
Mizoram	NA	0	0	0	-1.00	NA
Nagaland	NA	0	0	0	0	NA
Orissa	NA	0	1.54	0.43	2.10	0.84
Pondicherry	NA	0	1.10	2.08	2.24	2.77
Punjab	3.00	0	7.98	11.37	41.17	10.72
Rajasthan	2.00	0	13.79	11.96	0.46	NA
Sikkim	NA	0	0.06	0	0	0
Tamil Nadu	17.00	0	8.89	15.65	16.29	20.78
Tripura	NA	0	0	0	0	NA
Union Government	4.00	0	8.70	13.48	20.92	26.27
Uttar Pradesh	2.00	0	13.45	6.55	10.24	NA
Uttaranchal	-	-	-	-	-	-
West Bengal	7.00	0	8.61	18.49	NA	8.89
All India	**86.00**	**0.61**	**116.83**	**224.46**	**190.20**	**145.65**

Sources: For 1981 and 1987 is combined Finance and Revenue Accounts Comptroller and Auditor General of India GOI,respective year. Other years -Demand for Grants, respective States.

Note: NA - not available; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent state

3.11: Revenue Expenditure on Family Welfare

(Rs. in Millions)

State/Year	1981	1987	1991	1996	1998	1999	2001
Andhra Pradesh	124.00	373.03	612.32	1290.69	1657.63	2207.36	2727.74
Arunachal Pradesh	1.00	2.41	6.82	11.85	24.37	NA	21.60
Assam	19.00	127.30	179.13	377.19	326.00	397.91	697.27
Bihar	88.00	315.42	556.80	1531.42	1570.93	2034.16	1584.96
Chhattisgarh	-	-	-	-	-	-	-
Goa,Daman & Diu	2.00	5.49	11.42	12.87	22.11	NA	31.03
Gujarat	100.00	323.93	423.61	761.16	978.83	NA	1327.69
Haryana	24.00	98.90	134.42	308.23	354.11	443.63	340.45
Himachal Pradesh	18.00	62.08	121.82	194.72	228.44	302.91	321.10
Jammu & Kashmir	11.00	29.85	65.99	167.35	238.27	278.00	189.34
Jharkhand	-	-	-	-	-	-	-
Karnataka	83.00	286.31	382.71	914.76	1124.41	925.36	1368.06
Kerala	59.00	175.46	357.87	590.17	694.30	794.68	921.90
Madhya Pradesh	103.00	403.92	451.45	779.5	836.88	1007.31	1092.8
Maharashtra	128.00	445.00	644.71	1315.34	1206.03	948.16	1774.97
Manipur	7.00	15.44	28.20	59.88	62.20	NA	76.30
Meghalaya	4.00	12.49	20.22	49.74	62.51	NA	74.00
Mizoram	2.00	7.66	14.78	21.70	NA	NA	49.50
Nagaland	NA	13.89	17.97	72.37	48.31	NA	84.61
Orissa	64.00	172.22	300.49	612.21	618.86	835.20	759.23
Pondicherry	2.00	5.39	5.58	10.30	15.55	17.84	25.77
Punjab	32.00	136.95	195.40	379.74	367.55	415.82	448.36
Rajasthan	71.00	261.97	464.51	1068.12	1162.48	1567.63	1457.47
Sikkim	1.00	5.20	11.41	35.21	29.70	48.43	47.30
Tamil Nadu	88.00	335.17	630.77	1223.56	1536.02	1915.87	1888.15
Tripura	2.00	13.60	32.74	85.36	141.15	NA	184.04
Union Government	126.00	439.88	677.27	1347.68	3257.84	3134.02	6632.46
Uttar Pradesh	178.00	956	1494.29	2180.81	3223.12	NA	2671.10
Uttaranchal	-	-	-	-	-	-	-
West Bengal	83.00	302.18	550.56	909.66	944.48	1502.68	1857.51
All India	**1419.00**	**5327.14**	**8393.26**	**16311.59**	**20732.08**	**18776.97**	**28654.71**

Sources: For 1981 and 1987 is combined Finance and Revenue Accounts Comptroller and Auditor General of India GOI,respective year. Other years -Demand for Grants, respective States; For year 2001 is State Finance A Study of Budget of 2002-03, RBI

Note: NA - not available; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent state

3.12: Capital Expenditure on Family Welfare

(Rs. in Millions)

State/Year	1981	1987	1991	1996	1998	1999	2001
Andhra Pradesh	1.00	8.32	0.28	0	0	0	0
Arunachal Pradesh	0	0	0	0	0	NA	0
Assam	3.00	28.23	6.10	1.02	1.85	3.07	1.99
Bihar	7.00	40.20	0.17	0	6.44	0	0
Chhattisgarh	-	-	-	-	-	-	-
Goa,Daman & Diu	NA	0	0	0	0	NA	0
Gujarat	1.00	1.63	2.03	1.20	0.15	NA	0
Haryana	4.00	1.39	1.41	19.13	15.82	46.13	3.20
Himachal Pradesh	2.00	7.65	33.15	8.99	-0.05	0.19	0
Jammu & Kashmir	0.19	0	7.70	0.82	0.35	0	0.03
Jharkhand	-	-	-	-	-	-	-
Karnataka	NA	112.71	48.95	31.02	155.31	NA	301.48
Kerala	2.00	137.57	50.30	22.90	26.66	13.69	4.93
Madhya Pradesh	NA	41.36	14.47	48.89	107.15	54.74	31.10
Maharashtra	NA	0.90	8.02	0.28	0.11	7.08	0.30
Manipur	0.06	3.36	2.44	0.05	0.01	NA	0
Meghalaya	0.04	2.07	0	0	0	NA	0
Mizoram	NA	0	0	0	NA	NA	0
Nagaland	1.00	0	1.63	0	0	NA	0
Orissa	NA	0	8.57	0	0	0	0
Pondicherry	NA	0	0	0	0	0	0
Punjab	4.00	18.75	1.03	2.46	0.04	NA	0
Rajasthan	6.00	1.57	27.25	94.80	340.14	46.59	78.70
Sikkim	NA	0	0	0	0	0	0.03
Tamil Nadu	3.00	15.42	19.89	57.71	0.47	-0.24	1.59
Tripura	0.01	0.85	1.63	0.61	0.06	NA	N.A.
Union Government	NA	47.59	1.07	0.84	0.46	0.79	185.19
Uttar Pradesh	8.00	21.69	35.59	60.78	3.12	NA	0.45
Uttaranchal	-	-	-	-	-	-	-
West Bengal	3.00	1.98	134.93	0	NA	0.07	0
All India	**45.30**	**493.24**	**406.61**	**351.50**	**658.09**	**172.11**	**608.03**

Sources: For 1981 and 1987 is combined Finance and Revenue Accounts Comptroller and Auditor General of India GOI,respective year. Other years -Demand for Grants, respective States; For year 2001 is State Finance A Study of Budget of 2002-03, RBI

Note: NA - not available; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent state

3.13: Expenditure on Medical Services

(Rs. in Millions)

State/Year	1981	1987	1991	1996	1998	1999
Andhra Pradesh	601.00	1147.05	2056.16	3671.83	5438.70	6719.37
Arunachal Pradesh	34.00	92.32	157.23	287.54	388.14	NA
Assam	204.00	558.82	904.55	1581.97	1771.78	1605.21
Bihar	439.00	1099.86	1797.36	2961.96	3751.49	4186.05
Chhattisgarh	-	-	-	-	-	-
Goa,Daman & Diu	59.00	135.76	293.73	444.26	535.07	NA
Gujarat	392.00	918.92	1654.43	3075.70	4257.85	NA
Haryana	162.00	342.69	598.30	1118.35	1455.68	2090.64
Himachal Pradesh	127.00	267.88	483.73	984.57	1433.27	1983.25
Jammu & Kashmir	221.00	472.01	771.03	1588.04	1367.60	2254.08
Jharkhand	-	-	-	-	-	-
Karnataka	426.00	1093.01	1885.60	3856.91	5396.78	NA
Kerala	482.00	1022.06	1636.15	3212.95	3970.58	4440.01
Madhya Pradesh	449.00	1058.74	1917.02	3332.83	4340.19	6003.53
Maharashtra	795.00	1480.17	2341.87	4092.37	5328.13	6091.55
Manipur	36.00	77.20	133.90	260.94	284.24	NA
Meghalaya	45.00	98.03	178.36	328.01	417.10	NA
Mizoram	28.00	88.70	118.11	221.07	NA	NA
Nagaland	53.00	149.14	247.15	380.05	553.72	NA
Orissa	267.00	547.36	868.24	1649.62	2009.41	2637.74
Pondicherry	28.00	79.27	158.09	322.30	426.60	501.34
Punjab	322.00	677.26	1306.20	1982.79	3090.41	4340.64
Rajasthan	397.00	970.76	1819.39	4023.95	4966.78	6270.88
Sikkim	13.00	36.98	80.41	222.59	193.98	366.45
Tamil Nadu	772.00	1629.58	2685.27	4929.51	6559.37	8007.69
Tripura	38.00	114.52	219.66	304.67	406.63	NA
Union Government	912.00	2195.43	4632.99	6541.75	9387.26	11891.23
Uttar Pradesh	752.00	1485.93	4074.00	6580.28	820.08	NA
Uttaranchal	-	-	-	-	-	-
West Bengal	932.00	1851.76	3350.70	4636.86	NA	8615.33
All India	**8986.00**	**19691.21**	**36369.63**	**62593.67**	**68550.84**	**80003.99**

Sources: For 1981 and 1987 is combined Finance and Revenue Accounts Comptroller and Auditor General of India GOI,respective year. Other years -Demand for Grants, respective States;

Note: NA - not available; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent state

3.14: Total Expenditure on Public Health

(Rs. in Millions)

State/Year	1981	1987	1991	1996	1998	1999
Andhra Pradesh	420.00	1400.56	629.18	1098.70	1410.23	1475.02
Arunachal Pradesh	25.00	128.39	23.17	70.04	70.12	NA
Assam	171.00	671.69	192.61	305.43	463.78	337.78
Bihar	211.00	1173.35	422.89	478.59	484.79	556.16
Chhattisgarh	-	-	-	-	-	-
Goa,Daman & Diu	16.00	168.16	20.80	38.64	47.11	NA
Gujarat	251.00	1430.99	443.95	870.79	1160.69	NA
Haryana	206.00	496.78	136.93	221.25	499.71	499.31
Himachal Pradesh	112.00	417.01	84.74	175.80	238.55	289.01
Jammu & Kashmir	76.00	711.32	44.65	194.15	919.83	462.37
Jharkhand	-	-	-	-	-	-
Karnataka	205.00	595.74	178.54	331.07	404.06	NA
Kerala	125.00	502.21	175.57	346.07	412.90	502.75
Madhya Pradesh	638.00	1585.23	433.09	644.43	838.75	1428.67
Maharashtra	747.00	3387.95	1988.86	3653.10	4670.36	4808.10
Manipur	24.00	251.97	38.24	62.53	122.20	NA
Meghalaya	27.00	161.09	42.72	64.36	76.98	NA
Mizoram	36.00	154.70	22.19	48.58	NA	NA
Nagaland	59.00	193.99	35.54	104.76	35.35	NA
Orissa	234.00	614.82	228.52	390.96	453.32	595.22
Pondicherry	13.00	36.77	19.77	43.33	48.42	50.41
Punjab	165.00	435.69	194.14	239.31	402.63	426.65
Rajasthan	345.00	1891.95	267.60	565.48	696.25	715.59
Sikkim	11.00	30.70	9.25	16.97	17.38	25.30
Tamil Nadu	243.00	975.80	559.21	972.17	1294.37	1743.82
Tripura	4.00	83.57	49.15	34.30	62.92	NA
Union Government	652.00	1298.15	414.92	1018.35	1836.88	3530.55
Uttar Pradesh	625.00	1578.41	1155.97	1771.26	104.95	NA
Uttarannchal	-	-	-	-	-	-
West Bengal	391.00	669.98	563.85	752.42	NA	1377.27
All India	**6032.00**	**21046.97**	**8376.05**	**14512.84**	**16772.53**	**18823.98**

Sources: For 1981 and 1987 is combined Finance and Revenue Accounts Comptroller and Auditor General of India GOI,respective year. Other years -Demand for Grants, respective States;

Note: NA - not available; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent state

3.15: Expenditure on National Disease Programme

(Rs. in Millions)

State/Year	1981	1987	1991	1996	1998	1999
Andhra Pradesh	132.00	321.45	535.70	937.24	1221.91	1254.94
Arunachal Pradesh	9.00	1.50	22.06	65.16	68.01	NA
Assam	40.00	108.21	162.80	276.69	414.08	275.40
Bihar	70.00	183.91	314.05	355.27	401.85	452.14
Chhattisgarh	-	-	-	-	-	-
Goa,Daman & Diu	6.00	9.93	12.79	24.88	30.24	NA
Gujarat	94.00	208.41	282.94	652.46	852.47	NA
Haryana	48.00	105.84	112.90	181.29	447.75	433.41
Himachal Pradesh	24.00	46.82	77.22	156.23	210.86	256.32
Jammu & Kashmir	10.00	19.64	16.35	44.62	29.34	63.50
Jharkhand	-	-	-	-	-	-
Karnataka	74.00	167.75	126.77	247.23	303.55	NA
Kerala	30.00	57.38	88.05	208.71	225	290.00
Madhya Pradesh	107.00	180.75	296.63	464.29	699.10	853.54
Maharashtra	192.00	520.93	622.48	1011.08	1154.26	1435.68
Manipur	17.00	22.57	35.50	61.22	117.64	NA
Meghalaya	17.00	21.04	32.61	49.33	57.21	NA
Mizoram	7.00	15.41	20.93	43.02	NA	NA
Nagaland	8.00	25.60	35.49	101.66	32.17	NA
Orissa	77.00	165.41	174.82	290.99	322.15	358.68
Pondicherry	4.00	9.51	16.32	35.06	39.70	42.34
Punjab	53.00	119.23	170.20	198.70	345.10	355.15
Rajasthan	104.00	149.09	221.18	475.94	590.05	597.69
Sikkim	2.00	4.73	7.48	13.99	14.04	20.20
Tamil Nadu	37.00	55.36	455.65	801.31	1048.01	1332.12
Tripura	6.00	22.16	40.22	23.51	50.89	NA
Union Government	61.00	142.66	196.92	527.92	975.04	1260.12
Uttar Pradesh	217.00	537.82	1029.40	1661.62	NA	NA
Uttaranchal	-	-	-	-	-	-
West Bengal	96.00	193.94	429.740	555.21	NA	989.70
All India	**1542.00**	**3417.05**	**5537.20**	**9464.63**	**9650.42**	**10270.93**

Sources: For 1981 and 1987 is combined Finance and Revenue Accounts Comptroller and Auditor General of India GOI, respective year. Other years -Demand for Grants, respective States.

Note: NA - not available; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent state

3.16: Expenditure on Hospitals and Dispensaries

(Rs. in Millions)

State/Year	1981	1987	1991	1996	1998	1999
Andhra Pradesh	411.00	813.17	1083.63	1928.78	3017.52	3542.16
Arunachal Pradesh	28.00	0.81	113.95	180.23	273.73	NA
Assam	136.00	352.50	364.75	674.37	673.51	704.47
Bihar	282.00	660.59	389.29	680.51	929.54	1066.64
Chhattisgarh	-	-	-	-	-	-
Goa,Daman & Diu	37.00	97.38	123.35	216.29	289.72	NA
Gujarat	233.00	542.46	NA	1197.90	1450.05	NA
Haryana	64.00	139.70	166.50	371.55	424.33	583.59
Himachal Pradesh	73.00	153.46	130.63	324.51	406.91	586.62
Jammu & Kashmir	113.00	247.67	502.93	1063.49	296.43	986.19
Jharkhand	-	-	-	-	-	-
Karnataka	261.00	747.95	582.96	1080.51	1393.35	NA
Kerala	310.00	653.26	928.48	1561.17	1963.70	2159.79
Madhya Pradesh	307.00	684.81	840.62	1509.82	1644.38	2060.06
Maharashtra	355.00	787.45	1264.15	2447.46	2972.69	3390.11
Manipur	22.00	53.16	36.49	105.89	86.85	NA
Meghalaya	36.00	59.21	70.06	117.86	142.82	NA
Mizoram	22.00	73.67	27.52	51.55	NA	NA
Nagaland	39.00	114.11	126.15	183.45	178.78	NA
Orissa	187.00	375.26	334.80	659.82	766.04	944.00
Pondicherry	23.00	65.60	123.82	245.40	274.62	328.89
Punjab	201.00	460.03	522.56	792.47	1198.09	1421.61
Rajasthan	241.00	581.39	738.81	1306.71	1522.34	2022.56
Sikkim	6.00	19.98	38.33	90.78	105.69	259.62
Tamil Nadu	551.00	1192.42	1405.88	2625.39	3334.46	3890.94
Tripura	31.00	89.98	115.00	154.61	195.51	NA
Union Government	208.00	627.27	1484.68	1260.14	1885.62	2155.98
Uttar Pradesh	440.00	944.97	2262.58	4141.25	NA	NA
Uttaranchal	-	-	-	-	-	-
West Bengal	529.00	1063.84	1594.30	2286.99	NA	4368.51
All India	**5146.00**	**11602.10**	**15372.22**	**27258.90**	**25426.68**	**30471.74**

Sources: For 1981 and 1987 is combined Finance and Revenue Accounts Comptroller and Auditor General of India GOI, respective year. Other years -Demand for Grants, respective States.

Note: NA - not available; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent state

3.17: Expenditure on Central Government Health Scheme (CGHS)/ Employees State Insurance Schemes (ESIS)

(Rs. in Millions)

State/Year	1981	1987	1991	1996	1998	1999
Andhra Pradesh	63.00	68.52	138.13	266.97	339.78	381.93
Arunachal Pradesh	NA	0	11.66	30.39	13.86	NA
Assam	6.00	6.62	14.09	28.49	31.88	55.40
Bihar	13.00	20.83	38.60	63.93	86.88	82.38
Chhattisgarh	-	-	-	-	-	-
Goa,Daman & Diu	NA	1.38	7.41	14.93	25.15	NA
Gujarat	75.00	164.49	NA	411.92	478.15	NA
Haryana	22.00	41.07	66.85	129.91	154.87	230.84
Himachal Pradesh	NA	1.40	56.03	10.82	12.81	20.75
Jammu & Kashmir	2.00	0	0	0	0	0
Jharkhand	-	-	-	-	-	-
Karnataka	44.00	89.72	138.56	264.06	302.74	NA
Kerala	46.00	65.27	126.13	243.76	254.54	285.79
Madhya Pradesh	20.00	41.88	81.27	147.21	193.69	252.55
Maharashtra	209.00	270.24	396.10	533.35	652.02	783.17
Manipur	NA	0	0	0	0	NA
Meghalaya	NA	0	0	0	0	NA
Mizoram	NA	0	0	0	NA	NA
Nagaland	2.00	0	0	0	0	NA
Orissa	10.00	25.39	34.41	59.39	77.76	104.06
Pondicherry	3.00	6.49	13.31	23.56	29.45	41.41
Punjab	24.00	46.61	91.44	154.36	217.95	256.73
Rajasthan	19.00	44.74	65.83	125.69	153.16	202.24
Sikkim	NA	0	0	0	0	0
Tamil Nadu	67.00	127.79	233.47	392.53	508.20	632.72
Tripura	NA	0	0	0	0	NA
Union Government	134.00	360.59	722.59	1249.62	1698.55	2081.49
Uttar Pradesh	124.00	81.35	162.27	192.22	NA	NA
Uttaranchal	-	-	-	-	-	-
West Bengal	118.00	216.39	300.32	365.56	NA	645.06
All India	**1001.00**	**1680.77**	**2698.47**	**4708.67**	**5231.44**	**6056.52**

Sources: For 1981 and 1987 is combined Finance and Revenue Accounts Comptroller and Auditor General of India GOI, respective year. Other years -Demand for Grants, respective States.

Note: NA - not available; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent state

3.18: Revenue Expenditure on Medical Education, Training and Research

(Rs. in Millions)

State/Year	1981	1987	1991	1996	1998	1999
Andhra Pradesh	65.00	144.72	253.68	432.77	534.26	581.95
Arunachal Pradesh	1.00	2.11	7.20	3.12	11.55	11.55
Assam	19.00	42.48	96.26	139.90	156.98	179.65
Bihar	41.00	181.86	212.58	303.80	481.31	546.82
Chhattisgarh	-	-	-	-	-	-
Goa,Daman & Diu	5.00	16.75	27.75	46.30	52.33	62.54
Gujarat	44.00	86.58	217.24	432.67	588.70	NA
Haryana	35.00	81.77	147.38	262.15	347.20	501.51
Himachal Pradesh	11.00	22.48	66.01	120.86	195.43	256.49
Jammu & Kashmir	43.00	124.02	120.17	253.05	673.61	986.00
Jharkhand	-	-	-	-	-	-
Karnataka	57.00	109.72	220.15	448.72	749.53	NA
Kerala	50.00	117.03	226.05	422.39	577.84	618.85
Madhya Pradesh	36.00	75.21	144.50	286.36	424.16	528.89
Maharashtra	105.00	186.73	370.10	635.72	1277.25	1255.89
Manipur	3.00	6.00	18.85	14.01	37.63	NA
Meghalaya	2.00	5.64	7.03	12.27	16.73	NA
Mizoram	NA	2.02	4.81	12.56	NA	NA
Nagaland	1.00	2.23	2.48	11.21	2.66	NA
Orissa	24.00	55.04	110.72	176.27	244.44	296.75
Pondicherry	1.00	1.51	7.14	18.45	51.70	77.59
Punjab	41.00	72.16	168.70	217.37	330.08	585.83
Rajasthan	43.00	99.96	188.10	378.46	445.56	669.78
Sikkim	NA	0.15	0.39	1.28	0.90	0.87
Tamil Nadu	72.00	141.14	322.14	558.97	833.76	929.39
Tripura	2.00	7.33	14.13	0.18	17.22	NA
Union Government	262.00	738.83	1884.54	3533.88	4955.05	6850.18
Uttar Pradesh	52.00	306.62	547.47	872.88	NA	NA
Uttaranchal	-	-	-	-	-	-
West Bengal	63.00	133.15	321.00	487.04	NA	817.32
All India	**1078.00**	**2763.24**	**5706.57**	**10082.64**	**13005.88**	**15757.85**

Sources: For 1981 and 1987 is combined Finance and Revenue Accounts Comptroller and Auditor General of India GOI, respective year. Other years -Demand for Grants, respective States.

Note: NA - not available; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent state

3.19: Capital Expenditure on Medical Education, Training and Research

(Rs. in Millions)

State/Year	1981	1987	1991	1996	1998	1999
Andhra Pradesh	4.00	4.58	0.28	NA	0	0
Arunachal Pradesh	NA	0	0	0	0	NA
Assam	11.00	11.38	54.52	5.11	3.24	2.10
Bihar	NA	0	0	0	0	0
Chhattisgarh	-	-	-	-	-	-
Goa,Daman & Diu	10.00	13.12	78.41	64.15	27.88	NA
Gujarat	1.00	6.64	5.61	2.82	25.88	NA
Haryana	NA	9.89	21.45	15.85	13.43	14.82
Himachal Pradesh	8.00	9.27	11.18	27.22	81.25	134.47
Jammu & Kashmir	39.00	22.42	125.39	183.45	65.99	20.42
Jharkhand	-	-	-	-	-	-
Karnataka	1.00	0	6.18	0	49.84	NA
Kerala	7.00	29.59	28.81	92.57	139.37	195.66
Madhya Pradesh	1.00	6.84	17.14	1.66	1.08	0.81
Maharashtra	31.00	33.04	53.70	75.23	61.73	108.12
Manipur	NA	0	0	0	0	NA
Meghalaya	NA	0	0	0	0	NA
Mizoram	NA	0	0	0	NA	NA
Nagaland	NA	0	0	0	0	NA
Orissa	NA	0.06	5.93	1.70	14.62	15.10
Pondicherry	NA	0	0	0	0	0
Punjab	2.00	0.85	18.21	17.45	13.31	9.87
Rajasthan	4.00	27.17	28.50	104.57	171.47	159.61
Sikkim	NA	0	0	0	0	0
Tamil Nadu	7.00	25.89	53.29	6.41	11.81	NA
Tripura	NA	0	0	0.07	0.30	NA
Union Government	48.00	3.30	21.40	122.10	200.79	172.09
Uttar Pradesh	4.00	8.41	21.88	19.96	39.71	NA
Uttaranchal	-	-	-	-	-	-
West Bengal	7.00	43.92	19.22	42.05	NA	43.55
All India	**185.00**	**256.37**	**571.10**	**782.37**	**921.70**	**876.62**

Sources: For 1981 and 1987 is combined Finance and Revenue Accounts Comptroller and Auditor General of India GOI, respective year. Other years -Demand for Grants, respective States.

Note: NA - not available; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent state

3.20: Revenue Expenditure on Rural Family Welfare Services

(Rs. in Millions)

State/Year	1981	1987	1991	1996	1998	1999
Andhra Pradesh	66.00	197.80	348.53	678.82	922.94	1040.54
Arunachal Pradesh	NA	0	0.08	0	0	NA
Assam	7.00	34.72	93.90	196.95	233.18	288.30
Bihar	48.00	158.74	369.07	708.41	890.11	801.89
Chhattisgarh	-	-	-	-	-	-
Goa,Daman & Diu	1.00	2.74	4.74	7.32	9.43	NA
Gujarat	36.00	109.39	235.15	460.76	595.58	NA
Haryana	10.00	29.20	54.91	109.58	140.30	200.49
Himachal Pradesh	6.00	13.05	52.50	92.44	120.19	173.17
Jammu & Kashmir	4.00	15.16	44.86	74.32	84.00	86.11
Jharkhand	-	-	-	-	-	-
Karnataka	27.00	81.86	7.28	13.65	11.97	NA
Kerala	31.00	84.57	205.65	345.73	413.61	480.16
Madhya Pradesh	44.00	90.21	210.78	361.49	459.51	578.74
Maharashtra	46.00	88.62	149.90	232.30	304.08	292.11
Manipur	2.00	6.69	14.79	16.90	21.10	NA
Meghalaya	1.00	4.37	9.71	21.29	29.17	NA
Mizoram	1.00	1.72	4.30	8.98	NA	NA
Nagaland	NA	8.30	12.98	24.89	37.89	NA
Orissa	22.00	42.07	123.79	191.91	245.18	368.69
Pondicherry	1.00	1.24	2.05	3.38	5.60	6.89
Punjab	16.00	34.45	81.24	109.78	156.86	201.82
Rajasthan	21.00	81.31	193.62	432.67	493.01	657.65
Sikkim	NA	2.53	6.63	24.71	19.29	33.12
Tamil Nadu	43.00	80.11	280.87	497.48	658.71	873.15
Tripura	1.00	3.98	19.23	27.71	54.07	NA
Union Government	NA	0.86	3.94	6.61	10.93	11.73
Uttar Pradesh	94.00	438.91	845.27	1353.77	NA	NA
Uttaranchal	-	-	-	-	-	-
West Bengal	26.00	152.03	351.83	541.46	NA	1032.07
All India	**554.00**	**1764.63**	**3727.60**	**6543.31**	**5916.71**	**7126.63**

Sources: For 1981 and 1987 is combined Finance and Revenue Accounts Comptroller and Auditor General of India GOI, respective year. Other years -Demand for Grants, respective States.

Note: NA - not available; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent state

3.21: Revenue Expenditure on Urban Family Welfare Services

(Rs. in Millions)

State/Year	1981	1987	1991	1996	1998	1999
Andhra Pradesh	3.00	10.07	18.62	32.57	39.25	36.18
Arunachal Pradesh	NA	0	0.02	0.18	0.24	NA
Assam	1.00	1.60	2.86	3.33	4.51	6.08
Bihar	1.00	2.27	6.68	4.00	6.28	7.05
Chhattisgarh	-	-	-	-	-	-
Goa,Daman & Diu	NA	0	0.91	1.32	2.11	NA
Gujarat	7.00	12.66	13.43	28.47	31.67	NA
Haryana	NA	0.98	2.98	4.93	7.14	8.58
Himachal Pradesh	NA	0	3.32	4.91	6.30	8.16
Jammu & Kashmir	1.00	0.50	1.31	1.77	0.98	1.04
Jharkhand	-	-	-	-	-	-
Karnataka	4.00	7.68	11.99	21.35	21.15	NA
Kerala	1.00	1.60	2.19	0.56	0	0.01
Madhya Pradesh	3.00	10.71	19.57	44.70	59.60	65.66
Maharashtra	3.00	23.83	38.05	62.16	72.95	63.87
Manipur	1.00	0.09	0.20	1.59	3.27	NA
Meghalaya	NA	0.13	1.17	2.47	2.79	NA
Mizoram	NA	0.20	0.77	0.30	NA	NA
Nagaland	NA	0	0	0	0	NA
Orissa	1.00	1.23	7.58	12.01	14.93	20.74
Pondicherry	NA	0	NA	NA	NA	NA
Punjab	1.00	2.23	12.58	23.02	29.89	48.51
Rajasthan	2.00	8.09	16.85	22.77	28.22	41.50
Sikkim	NA	0	0	2.08	2.31	3.60
Tamil Nadu	4.00	12.29	59.85	257.41	98.98	72.17
Tripura	NA	0.20	0.66	0.34	0.19	NA
Union Government	3.00	2.18	17.63	11.58	13.74	15.27
Uttar Pradesh	3.00	15.26	45.38	78.59	NA	NA
Uttaranchal	-	-	-	-	-	-
West Bengal	4.00	10.21	15.41	16.26	NA	24.44
All India	**43.00**	**124.01**	**300.01**	**638.67**	**446.50**	**422.86**

Sources: For 1981 and 1987 is combined Finance and Revenue Accounts Comptroller and Auditor General of India GOI, respective year. Other years -Demand for Grants, respective States.

Note: NA - not available; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent state

3.22: Revenue Expenditure on Maternal and Child Health

(Rs. in Millions)

State/Year	1981	1987	1991	1996	1998	1999
Andhra Pradesh	3.00	5.42	52.34	233.76	291.21	393.46
Arunachal Pradesh	1.00	1.14	0.13	0	0	0
Assam	3.00	11.67	10.80	110.62	25.70	21.68
Bihar	2.00	3.11	9.64	471.41	45.08	825.53
Chhattisgarh	-	-	-	-	-	-
Goa, Daman & Diu	NA	0	0.11	0.29	0.75	NA
Gujarat	NA	1.59	15.61	24.45	19.70	141.25
Haryana	1.00	5.80	14.57	31.77	59.59	80.41
Himachal Pradesh	2.00	6.10	8.80	31.67	41.03	52.11
Jammu & Kashmir	NA	0.34	0.47	0.60	0.21	0.08
Jharkhand	-	-	-	-	-	-
Karnataka	3.00	17.49	27.89	141.25	118.16	3.18
Kerala	NA	0.98	37.80	76.20	60.10	15.05
Madhya Pradesh	NA	1.42	12.48	16.59	23.10	22.72
Maharashtra	4.00	28.45	119.85	381.02	382.75	157.16
Manipur	NA	0.90	1.55	6.82	3.36	NA
Meghalaya	1.00	0.93	3.53	14.88	16.46	5.40
Mizoram	1.00	1.25	2.50	3.72	NA	23.58
Nagaland	NA	0.26	0.55	5.53	2.74	5.34
Orissa	NA	1.83	7.16	11.65	7.01	6.42
Pondicherry	NA	0.05	0.31	1.55	1.91	3.45
Punjab	NA	0	0.97	112.93	0.22	0
Rajasthan	7.00	23.66	63.08	210.39	210.8	324.05
Sikkim	NA	0	0.40	0.97	1.09	0.60
Tamil Nadu	3.00	14.86	37.92	203.67	383.36	323.02
Tripura	NA	1.28	2.70	0.61	20.99	NA
Union Government	27.00	13.91	3.33	201.82	1102.51	1481.13
Uttar Pradesh	3.00	4.55	25.69	40.79	NA	NA
Uttaranchal	-	-	-	-	-	-
West Bengal	1.00	1.62	5.11	19.18	NA	143.16
All India	**62.00**	**148.61**	**465.29**	**2354.14**	**2817.83**	**4028.78**

Sources: For 1981 and 1987 is combined Finance and Revenue Accounts Comptroller and Auditor General of India GOI, respective year. Other years -Demand for Grants, respective States.

Note: NA - not available; Data for Chattisgarh, Jharkhand, Uttaranchal are included in their parent state

Glossary

Central Government Health Scheme (CGHS)/ Employees State Insurance Schemes (ESIS) expenditure on provision of care for the organized sector employees through insurance

Family Welfare this head includes all Family planning Expenditure like FW Centres (rural and urban), services and supplies, compensation , training for Family planning programs etc. it also includes maternal and Child Health Expenditure

Family Welfare Expenditure includes expenditure on **a)** direction and administration of family welfare, mainly the FW department, bureaucracy at the center, state and divisional level **b)** Compensation paid to motivators and acceptors of Vasectomy, tubectomy and IUCD's **c)** provision of family Planning services to rural and urban areas

Family Welfare Receipts Comprise the sale of contraceptives, service fees and miscellaneous recovery of payments

Health Expenditure includes three account heads ' **Medica**l ', ' **Public Health'** and '**Family Welfare**' the sum of Revenue and Capital account of these head is Total Health Expenditure

Hospital and Dispensary Expenditure incurred on provision of Curative care through hospitals and dispensaries

Maternal and Child Health expenditure incurred on maternal child health,including immunizations, ante-natal and post-natal programs

Medical Education Training and Research expenditure incurred on **a)** education of doctors and nurses in the various medical colleges and nursing institutions. This does not include expenditure on the teaching hospital, which is accounted under Hospital and Dispensaries **b)** Training of most of the health workers under the various diseases control programes like MPWs, Health Assistants, Supervisors etc.**c)** Traning of Auxiliary nurse Midwifes (ANM) , Health Visitors,Dai's and other staff connected with family planning programmes **c**) traning of health personnel of other systems' of medicines namely Ayurveda, Homepathy, Unnani, Siddha etc this also includes expenditure on their hospitals and dispensaries

Medical Services includes wide rage of programs like **a)** Medical relief consisting of conventional curative medical facilities such as Hospitals and Dispensaries; Indigenous system of medicine and Health insurance schemes for organized sector employees and their families (Employees State Insurance and Central Government Health Schemes) **b)** Medical education and research (doctors and nurses) **c)** Direction and administration

National Diseases Control Programmes includes expenditure Incurred on various disease control programmes run by the government. These include Malaria, Tuberculosis, Leprosy, Blindness, Filaria, Guinea worm, mental health, Goitre, sexually transmitted diseases and Diarrohea.

Public Health consisting of Prevention and Control of Communication Diseases. This also includes training of all paramedical health workers for the public health programs and other small programs like Food and Drug Administration, Public health Laboratories etc.

Public Health Receipts comprise of service and service fees, collection of payments for services rendered, sale proceeds of sera and vaccine, fines and other minor receipts in the public health account.

Revenue Receipts from Health Programs These receipts are internal accruals of the various health departments and programs. They are generally in the nature of fees and administrative charges(Medical care and Medical education), Services charges (Laboratory and diagnostic services), Premium contribution(ESIS / CGHS) Sale of drugs and contraceptives and fines and levies.

Total Expenditure this includes expenditure by all Government departments under the consolidated fund. As per budgetary classification of expenditure it includes Revenue and Capital account. Capital account consists entirely of expenditure on creation of assets or discharge of liabilities and thus correspond to the economic definition of Capital Expenditure. The expenditure on State administration, debt servicing, interest payments, grants-in-aid to various institutions, and expenditure on current consumption of goods and services of the department of government on activities of non-capital character are booked as revenue expenditure.

ISBN : 81-89042-40-8