

Health care in india – 2025

Issues and prospects

R Srinivasan

Introduction

Key linkages in health:

1. Health and health care need to be distinguished from each other for no better reason than that the former is often incorrectly seen as a direct function of the latter. Besides health care arrangements, many other factors outside the health sector play a key role in determining the health status of individuals and communities, such as levels of poverty, inequality and joblessness, access to basic minimum social services, gender equity etc. Health is clearly not the mere absence of disease. Good health confers on a person or groups freedom from illness - and the ability to realize one's potential. Health is therefore best understood as the indispensable basis for defining a person's sense of well being. The health of populations is a distinct key issue in public policy discourse in every mature society often determining the deployment of huge public funds. A number of factors affect the evolution of health care arrangements in a society. They include its cultural understanding of ill health and well being, extent of socio-economic disparities, reach of health services and quality and costs of care, and current bio-medical understanding about health and illness. There are well known differences between diseases of affluence and those arising from various types of deprivation. It is in this context that a framework of public and private institutions often evolves into health care system, to cover provision of care, manner of funding and regulation to ensure quality and accountability. In a democratic society this framework must above all ensure that none in dire need is denied care merely on account of inability to pay.

2. Health care covers not merely medical care but also all aspects of preventive care too. Nor can it be limited to care rendered by or financed out of public expenditure within the government sector alone but must include incentives and disincentives for self care and care paid for by private citizens to get over ill health. Where, as in India, private out-of-pocket expenditure dominates the cost of financing health care, the effects are bound to be regressive. Health care at its essential core is widely recognized to be a public good. Its demand and supply cannot therefore, be left to be regulated solely by the invisible hand of the market. Nor can it be established on considerations of utility maximizing conduct alone. All successful systems seek a balance of public expenditure, private funding and equitable risk sharing and supporting public policies to enhance health of populations, including vulnerable segments. But the crucial point remains that health is at bottom an issue in distributive justice wherein access to care and its quality should not be left to the play of chance but brought within social development goals. Under our Constitutional mandate, the State shall endeavor to raise levels of nutrition, standards of living and to improve public health.

3. What makes for a just health care system even as an ideal? Four criteria could be suggested. First, universal access, and access to an adequate level, and access without excessive burden. Second fair distribution of financial costs for access and fair distribution of burden in rationing care and capacity and a constant search for improvement to a more just system. Third training providers for competence empathy and accountability, pursuit of quality care and cost effective use of the results of relevant research. Last special attention to vulnerable groups such as children, women, disabled and the aged.

Forecasting in Health Sector:

4. Policies setting out related goals like in nutrition, old age support or population stabilization measures under the National Population Policy (NPP 2000) would all have a bearing on the profile of future health care. The National Health Policy 1983 (NHP – 83) is under revision and a draft put out in 2001 for public discussion. Similarly a draft policy for the development of ISM and H is available for public debate. NPP – 2000 has set out intermediate goals for 2010 in terms of universal immunization, TFR/2.1, IMR/30 and MMR/100. These national goals must be achieved not only for the country as a whole but in various States too if the long term population stabilisation objectives for the country are to be realised. Further the period 2003-2012 spans across the tenth and eleventh five-year plans, which should be seen as a platform from which to reach goals aimed at 2010 and beyond.

5. In general predictions about future health – of individuals and populations - can be notoriously uncertain. Assumptions made regarding changes in individual behavior health risks, interventions and outcomes or regarding long term demographic economic and disease trends will be affected by changes in levels and distribution of wealth and incomes and by the direction of scientific discoveries. For instance it is well established that health care costs often are a key reason for indebtedness for poorer segments. Or consider the fact that we are on the threshold of new understandings of the origins of life and its genetic basis that may well redefine the goals of medicine in the 21st century. Equally problematic is the changing popular perceptions in a post-modern world about the meaning of health and disease and well being. Such perceptions are vitally shaped by the relentless flow of global information through TV with its marketing images and the Internet with its accessible databases.

6. However all projections of health care in India must in the end rest on the overall changes in its political economy - on progress made in poverty mitigation (health care to the poor), in reduction of inequalities (health inequalities affecting access/quality), in generation of employment / income streams (to facilitate capacity to pay and to accept individual responsibility for one's health), in public information and development communication (to promote preventive self care and risk reduction by conducive life styles) and in personal life style changes (often directly resulting from social changes and global influences).Of course it will also depend on progress in reducing mortality and the likely disease load, efficient and fair delivery and financing systems in private and public sectors and attention to vulnerable sections, family planning and nutritional services and women's empowerment and the confirmed interest of the state to ensure just health care to the largest extent possible. To list them is to recall that Indian planning had at its best attempted to

capture this synergistic approach within a democratic structure It is another matter that it is now remembered only for its mixed success.

Available health forecasts:

7. Most available forecasts are global best judgment assessments based on critical subjective assumptions about health, illness and disability. The World Health Report 1998 sets out global trends of gains and losses in health by 2025. The disturbing finding is that by 2025 despite increasing life expectancy 2/5ths of all deaths would remain premature. What this implies is that more than 20 million (about 40%) would have died before 50 during a period when life expectancy had risen to 66 years; and one half of these deaths would be among children under five years. On the other hand world -wide life expectancy may well improve from 66 to 73 years by 2025 – a 50% improvement over the 1955 average of only 48 years, but meaningless without a reduction in avoidable mortality. Global population would reach 8 billion by 2025 and people over 65 would rise to 800 million constituting approximately 10% of total population. How far will mortality levels decline on a secular basis? The forecast underlines the double jeopardy of infectious diseases and chronic non communicable diseases including HIV/Aids that will face the world. It warns against any reduction in spending on control of infectious diseases as it would make them come back with a vengeance taking into account global spread of trade and travel facilitating spread of infection.

8. The forecast makes a reference to the possibility of a spectacular reduction in mortality expected to fall globally from 21 million deaths in 1955 to 11 million in 1995 to 5 million in 2025. IMR is projected to reach 29 in 2025 against 59 in 1995. Infectious diseases including diarrhoea combined with mal nutrition would continue to be a serious risk. There will be new patterns of morbidity and illness conditions linked to rapid urbanization and in the 21st century; the number of children under 15 infected with HIV may become so large as to reverse major gains in children's health achieved in the past 50 years on a global platform. Adolescence will represent the most dangerous years of life with the interplay of violence crime and drugs. Currently just over half the population is in the working age 20-64, but by 2025 the proportion would be 58%. Women's health would continue to cause disquiet. There will be 274 million old people in China alone and over 800 million in the world. As far as India is concerned, the population over 60 years would be around 136 million out of whom 52 million are expected to be over 70 years by 2021.

9. There is another forecast on the new health challenges likely to emerge in India over the next few decades, Murray and Lopez < World Bank B 2000 > have provided a possible scenario of the burden of disease (BOD) for India in the year 2020, based on a statistical model calculating the change in DALYS that would occur if the 1990 age specific DALYS are applied to the population projections for 2020 and conversely. The key conclusions must be understood keeping in mind the fact that the concept of DALYS incorporates not only mortality but disability viewed in terms of healthy years of life lost. In this forecast, DALYS are expected to dramatically decrease in respect of diarrhoeal diseases and respiratory infections and less dramatically for maternal conditions. TB is expected to plateau by 2000, and HIV infections are expected to rise significantly up to 2010. Injuries may increase less significantly, The proportion of people above 65 will increase and as a result the burden of non-communicable disease will rise. Finally cardio-vascular diseases

resulting mainly from the risk associated with smoking urban stress and improper diet are expected to increase dramatically.

10. Under the same BOD methodology another view is available from a four – State analysis done in 1996 < World Bank B 2000 > These four states – AP, Karnataka, W Bengal and Punjab - represent different stages in the Indian health transition. The analysis reveals that the poorer and more populated state, West Bengal, will still face a large incidence of communicable diseases. More prosperous states, such as Punjab further along the health transition will witness sharply increasing incidence of non-communicable diseases especially, in urban areas. One important finding is that the distribution of the burden between communicable diseases (CD), non-communicable diseases (NCD) and injuries was found to be different in two respects from the World Development Report (1993).

11. The first difference is that the contribution of NCD to the overall disease burden in Karnataka, Punjab and West Bengal respectively is now assessed at 30% 28% 29% and 28% respectively. This compares to 41% estimated in the WDR (1993). The second difference is with regard to contribution of injuries and accidents to the overall burden in the four states. Having regard to rapid urban growth and faltering infrastructure, it now ranges from between 15% and 19% whereas the WDR (1993) estimate, for India as a whole was less than half at 9%. On the whole the BOD approach had earlier overestimated the incidence of non-communicable diseases though its estimates for communicable diseases and injuries appear to hold true.

12. What the figures highlight further is that we are still operating on unreliable or incomplete base data on mortality and causes of death in the absence of vital registration statistics and know as yet little about how they differ between social classes and regions or about the dynamic patterns of change at work. It also highlights the policy dilemma of how to balance between the articulate middle and upper class demand for more access to technologically advanced and subsidised clinical services and the more pressing needs of the poor for coverage of basic disease control interventions. This conflict over deployment of public resources will only get exacerbated in future. What matters most in such estimates are not societal averages with respect to health but sound data illuminating specifically the health conditions of the disadvantaged in local areas < Gwatkin A 2000 > that long tradition of health sector analysis looking at unequal access, income poverty and unjustly distributed resources as the trigger to meet health needs of the poor. That tradition has been totally replaced by the currently dominant school of international thought about health which is concerned primarily with efficiency of systems measured by cost effectiveness criteria.

Future of state provided health care:

13. Historically the Indian commitment to health development has been guided by two principles, with three consequences. The first principle was State responsibility for health care and the second (after independence) was free medical care for all (and not merely to those unable to pay). The former was inherited from colonial days when direct delivery of health services was a state responsibility restricted to expatriate enclaves. Contrast this with the farsighted efforts in some princely States such as Travancore and Cochin to realize how the opportunity was missed in British India for developing a people-based, holistic affordable

and culturally rooted system. Nor was there any social movement in India for public health and personal hygiene pinpointing the social origins of ill health as Snow and Chadwick had done for Britain. For this reason, unlike the West, India missed its own sanitary revolution. This led to the first set of consequences of inadequate priority to public health, poor investment in safe water and sanitation and to the neglect of the key role of personal hygiene in good health, culminating in the persistence of diseases like Cholera.

14. The Bhore Committee (1946) was not only the last bequest of this colonial legacy but also became the first policy statement on health care in independent India. Free India accepted the onerous load of free services to all notwithstanding a fast increasing population, partly due to the fascination of its leadership to an NHS type of health care system with no payment at the point of service. NHS came into existence in UK accompanied by a strong referral tradition, intense political debate, a social security framework and some basic public health infrastructures already in position. None of this obtained in India, where the referral links are far from firm, and hardly any debate about the content of care and as yet only a semblance of social security to narrow sections of the employed population. The Bhore Committee curiously took no account of indigenous systems which people were actually using nor surprisingly paid any attention to the public duties of the private sector in medicine. Succeeding five-year plans have implicitly accepted the Bhore committee approach (along with its omissions).

15. Till 1983, there was no formal health policy. It took the Alma Ata declaration and the report of the joint ICSSR/ ICMR report to call for a comprehensive approach to health care. National Health Policy 1983 (NHP-83) was critical of the western model of health care. It suggested a holistic decentralized and low cost system worked through a network of trained doctors, para-professionals and volunteers devoted to community needs and providing self-reliance. Progress in implementing an NHP has been patchy, due to unfocussed strategies and under estimation of costs. No doubt some de-professionalization has occurred but little genuine community participation, as the models adopted have not always been congruent to health behaviour of people. No epidemiological base has been built and vertical programmes have continued. There has been a huge growth of private sector in medicine promoted by hidden subsidies in medical education and concessions extended for setting up hospitals. The private sector has however remained dominantly urban, curative, high tech and hooked into acute care, leaving the remaining tasks to Government of servicing rural, preventive, common and chronic illness.

16. This has led to the second set of consequences of substantially unrealized goals of NHP 1983 due to funding difficulties from compression of public expenditures and from organizational inadequacies. The ambitious and far reaching NPP – 2000 goals and strategies have however been formulated on that edifice in the hope that the gaps and the inadequacies would be removed by purposeful action. Without being too defensive or critical about its past failures, the rural health structure should be strengthened and funded and managed efficiently in all States by 2005. This can trigger many dramatic changes over the next twenty years in neglected aspects of rural health and of vulnerable segments.

17. Moreover health planning in India had always had a centralised focus and remained top down and largely technocratic and managerial backed by no social imagination. As a result there has been no sustained effort to nurture decentralization. Nor was there an attempt to downstage responsibility for care to levels below doctors or a non-doctor based health care linked to genuine community responsibility for local health planning and implementation, like spraying insecticides or mother's education in managing diarrhoea in children or making use of ISMH traditions for preventive services. Indian political and administrative traditions tend to focus on government as the fount of policy financing, ownership and management. Many of the solutions offered by foreign donors were attracted towards similar centralized recipes – perhaps daunted by the huge diversity in local conditions. In actual fact this was a profound misreading of reality. There has always been a substantial tradition in India where health care and education were embedded in societal reciprocities often not involving the state. In recent centuries, a vast private sector in health care in India has emerged to serve those in urban areas and able to pay fee for service. It was supplemented by indigenous systems of medicine and a network of less than fully qualified practitioners in rural areas dealing with common illnesses at varying levels of competence. Thus the third set of consequences appears to be inability to develop and integrate plural systems of medicine and the failure to assign practical roles to the private sector and to assign public duties for private professionals.

18. To set right these gaps demanded patient redefinition of the state's role keeping the focus on equity. But during the last decade there has been an abrupt switch to market based governance styles and much influential advocacy to reduce the state role in health in order to enforce overall compression of public expenditure and reduce fiscal deficits. People have therefore been forced to switch between weak and efficient public services and expensive private provision or at the limit forego care entirely except in life threatening situations, in such cases sliding into indebtedness. Health status of any population is not only the record of mortality and its morbidity profile but also a record of its resilience based on mutual solidarity and indigenous traditions of self-care - assets normally invisible to the planner and the professional. Such resilience can be enriched with the State retaining a strategic directional role for the good health of all its citizens in accordance with the constitutional mandate. Within such a framework alone can the private sector be engaged as an additional instrument or a partner for achieving shared public health outcomes. Similarly, the indigenous health systems must be promoted to the extent possible to become another credible delivery mechanism in which people have faith and a way found for the vast number of less than fully qualified doctors in rural areas to get skills upgraded. Public programs in rural and poor urban areas engaging indigenous practitioners and community volunteers can prevent much seasonal and communicable disease using low cost traditional knowledge and based on the balance between food, exercise medicine and moderate living. Such an overall vision of the public role of the heterogeneous private sector must inform the course of future of state led health care in the country.

Key Achievements in Health

19. Our overall achievement in regard to longevity and other key health indicators are impressive but in many respects uneven across States. The two Data Annexures at the end indicate selected health demographic and economic indicators and highlight the changes

between 1951 and 2001. Table 1 sets out selected data for demographic changes in the country.

TABLE 1- Demographic Changes – 1951-2000

Indicator	1951	1981	2000
Life Expectancy	36.7	54	64.6 (RGI)
Crude Birth Rate	40.8	33.9 (SRS)	26.1 (99 SRS)
Crude Death Rate	25	12.5 (SRS)	8.7 (99 SRS)
IMR	146	110	70 (99 SRS)

In the past five decades life expectancy has increased from 50 years to over 64 in 2000. IMR has come down from 146 to 70. Crude birth rates have dropped to 26.1 and death rates to 8.7. One of the recent projections made on the basis of Population Foundation of India data is given below in table 2 indicating key demographic changes till 2021. The disparities among states are clear from table 2.

Table.2: Demographic Projections: India & Major States 2001-2021:

	India / States Crude Birth Rate		Crude Death Rate		Life Expectancies M/F	
	2001	2021	2001	2021	2001	2021
India	24.6	19.2	8.7	6.8	62.9/64.9	68.9/73.5
Andhra Pradesh	19.4	14.0	7.6	7.4	63.8/66.7	69.6/73.4
Karnataka	21.6	14.9	7.9	7.1	63.8/67.1	69.3/72.6
Kerala	16.4	12.1	5.4	6.3	71.9/77.5	75.8/81.2
Maharashtra	21.2	14.5	6.9	6.6	66.9/69.2	72.5/74.9
Tamil Nadu	16.4	12.7	7.3	7.9	65.5/68.4	70.6/75.5
Bihar	28.7	18.8	9.1	6.4	64.0/62.0	70.9/71.5
Madhya Pradesh	28.7	21.4	11.7	8.3	57.9/57.8	65.7/65.8
Orissa	23.2	15.0	10.5	8.3	59.8/59.4	67.2/67.4
Rajasthan	29.0	24.9	9.1	6.3	62.3/63.4	69.9/72.6
Uttar Pradesh	31.7	28.4	10.9	7.0	61.3/60.0	69.3/69.8

20. At this stage, a process understanding of longevity and child health may be useful for understanding progress in future. Longevity, always a key national goal, is not merely the reduction of deaths as a result of better medical and rehabilitative care at old age. In fact without reasonable quality of life in the extended years marked by self-confidence and absence of undue dependency longevity may mean only a display of technical skills. Such quality of life requires as much external bio-medical interventions as culture based acceptance of inevitable decline in faculties without officious prolongation of life. Indeed, it must be realized that the pathways to longevity do not start at sixty but run across life lived at all ages in reduction of mortality among infants through immunization and nutrition interventions and reduction of mortality among young and middle aged adults, including

adolescents getting informed about sexuality reproduction and safe motherhood. At the same time, some segments will remain always more vulnerable – such as women (due to patriarchy and traditions of intra-family denial), aged (whose percentage will increase dramatically with improved health care), children (whose survival but not always development will increase with immunization) and the disabled (constituting a tenth of the population).

21. Reduction in child mortality involves as much attention to protecting children from infection as in ensuring nutrition and calls for a holistic view of mother and child health services. The cluster of services consisting of antenatal services, delivery care and post partum attention and low birth weight, childhood diarrhoea and ARI management are linked priorities. Programs of immunization and childhood nutrition seen in better performing states indicate sustained attention to routine and complex investments into growing children as a group to make them grow into persons capable of living long and well. Often interest fades in pursuing the unglamorous routine of supervised immunisation and is substituted by pulse campaigns etc. which in the long run turn out counter-productive. Indeed persistence with improved routines and care for quality in immunisation would also be a path way to reduce the world's highest rate of maternal mortality

22. In this context we may refer to the large ratio-based rural health infrastructure consisting of over 5 lakh trained doctors working under plural systems of medicine and a vast frontline force of over 7 lakh ANMs ,MPWs and Anaganwadi workers besides community volunteers. The creation of such public work force should be seen as a major achievement in a country short of resources and struggling with great disparities in health status. As part of rural Primary health care network alone, a total of 1.36 lakh subcenters, (with 1.27 lakh ANMs in position) and 22975 PHCs and 2935 CHCs (with over 24000 doctors and over 3500 specialists to serve in them) have been set up. .To promote Indian systems of medicine and homeopathy there are over 22000 dispensaries 2800 hospitals Besides 6 lakh angawadis serve nutrition needs of nearly 20 million children and 4 million mothers. The total effort has cost the bulk of the health development outlay which stood at over Rs 62 500/- crores or 3.64 % of total plan spending during the last fifty years .

23. On any count these are extraordinary infrastructural capacities created with resources committed against odds to strengthen grass roots. There have been facility gaps, supply gaps and staffing gaps, which can be filled up only by allocating about 20% more funds and determined will to ensure good administration and synergy from greater congruence of services, but given the sheer size of the endeavor there will always be some failure of commitment and in routine functioning. These get exacerbated by periodic campaign mode and vertical programs, which have only increased compartmentalized vision and over-medicalization of health problems The initial key mistake arose from the needless bifurcation of health and family welfare and nutrition functions at all levels instead of promoting more holism. As a result of all this the structure has been precluded from reaching its optimal potential. It has got more firmly established at the periphery /sub-center level and dedicated to RCH services only. At PHC and CHC levels this has further been compounded by a weak referral system. There has not been enough convergence in “escorting” children through immunization coverage and nutrition education of mothers and ensuring better food

to children, including cooked midday meals and health checks at schools. There has also been no constructive engagement between allopathic and indigenous systems to build synergies, which could have improved people's perceptions of benefits from the infrastructure in ways that made sense to them.

24. One key task in the coming decades is therefore to utilize fully that created potential by attending to well known organizational motivational and financial gaps. The gaps have arisen partly from the source and scale of funds and partly due to lack of persistence, both of which can be set right. PHCs and CHCs are funded by States several of whom are unable to match Central assistance offered and hence these centers remain inadequate and operate on minimum efficiency. On the other hand over two thirds cost of three fourths of sub-centers are fully met by the Center due to their key role in family welfare services. But in equal part these gaps are due to many other non-monetary factors such as undue centralization and uniformity, fluctuating commitment to key routines at ground level, insufficient experimentation with alternatives such as getting public duties discharged through private professionals and ensuring greater local accountability to users .

Components influencing health care:

25. Health care arrangements generally evolve under the influence of at least four component factors viz., a > population health status b > health infrastructure and its management (public and private) c > fairness in financing costs of care. and d> differing health perceptions of people , professionals and planners. Before looking at these issues a brief reference to foreign aid and health may be appropriate. As an open democratic society India had always been influenced by the dominant international paradigms on health care – be it HFA/PHC or District health systems approach – from WHO or the Children's charter movement and several uni-purpose campaign approaches – from UNICEF or the burden of disease and cost-effectiveness among available interventions approach - from World Bank, leading to two consequences. First the technocratic paradigms received from donors as part of aid have periodically redirected public health priorities in direction of efforts, in terms of unit costs and in manpower deployment, because foreign funding was often accepted as an addition to, and not an integral part of, domestic health sector planning. Further some vertical programs underestimated the biological consequences of mass intervention in drug resistance. In some other cases the epidemiological base itself was flawed and previous Indian research and experience was ignored .In yet yet others there has been difficulty in arranging funds for maintenance after the attack and consolidation phases were over so that those who benefited from one program fell victims to other health problems. After the opening up of the economy in 1991 donors and lenders have been able to influence more openly the ideological debate on key social transfer choices within the domestic political economy. The key goal of reducing the fiscal deficit pushed out many desirable social public policies affecting political salience of disadvantaged sections and their health issues. One direct consequence is that the burden of treatment has become disproportionately regressive for the poor – a tendency exacerbated by both compression of public expenditure and unregulated private practice and its commercialization. It has also been difficult to stop the articulate upper and middle classes health to swing resources in their favour and reap rent gains

26. International health aid has no doubt benefited India in many ways in institution and capacity building. Many agencies have genuine interest in India's development and have acquired a good insight into India's needs and opportunities for growth. At the same time it can not be gainsaid that aid has distorted national public health priorities, unwittingly or otherwise, through a mixture of genuine altruism, some refreshing thinking on managerial issues, ardent promotion of selective vertical interventions promising quick results and sometimes, at the back of it all, concern for commercial prospects of drug and vaccine industries. Often, foreign aid has offered solutions that are as centralized as the problem itself. But even when it did not do so it has not always been possible to push forward shared outcomes from aid in tandem with local government budgets for another reason - project cycles and program budgeting methods and accountability formats of foreign aid could seldom be sufficiently internalized into the normal routines of Indian administration.

Health status issues:

27. The difference between rural and urban indicators of health status and the wide interstate disparity in health status are well known. Tables 3 & 4 below give selected data.

TABLE –3 DIFFERENTIALS IN HEALTH STATUS – RURAL AND URBAN

Sector	Population BPL (%)	IMR/Per 1000 Live Births (1999-SRS)	<5Mortality per 1000 (NFHS II)	Weight for Age- % of Children under 3 years (<-2SD)
India	26.1	70	94.9	47
Rural	27.09	75	103.7	49.6
Urban	23.62	44	63.1	38.4

Clearly the urban rural differentials are substantial and range from childhood and go on increasing the gap as one grows up to 5 years. Sheer survival apart there is also the well known under provision in rural areas in practically all social sector services. For the children growing up in rural areas the disparities naturally tend to get even worse when compounded by the widely practiced discrimination against women, starting with foeticide of daughters.

TABLE –4 DIFFERENTIALS IN HEALTH STATUS – SELECTED STATES

Sector	Population BPL (%)	IMR/Per 1000 Live Births (1999-SRS)	<5Mortality per 1000 (NFHS II)	Weight for Age- % of Children under 3 years (<-2SD)
Kerala	12.72	14	18.8	27
M' rashtra	25.02	48	58.1	50
TNadu	21.12	52	63.3	37

Orissa	47.15	97	104.4	54
Bihar	42.60	63	105.1	54
Rajasthan	15.28	81	114.9	51
UP	31.15	84	122.5	52
MP	37.43	90	137.6	55

In spite of overall achievement it is a mixed record of social development specially failing in involving people in imaginative ways. Even the averaged out good performance hides wide variations by social class or gender or region or State. The poor living in remoter parts or resource lean pockets or as members of backward classes in many States have had to suffer the most due to lack of access or denial of access or social exclusion or all of them. This is clear from the fact that compared to the richest quintile, the poorest had 2.5 times more IMR and child mortality, TFR at double the rates and nearly 75% malnutrition - particularly during the nineties.

28. Not only are the gaps between the better performing and other States wide but in some cases have been increasing during the nineties. Large differences also exist between districts within the same better performing State. Urban areas appear to have better health outcomes than rural areas although the figures may not fully reflect the situation in urban and peri-urban slums with large in migration with conditions comparable to rural pockets. It is estimated that urban slum population will grow at double the rate of urban population growth in the next few decades. India may have by 2025 a total urban population of close to 600 million living in 25 metropolitan and 500 large cities, whereas there were 285 million living in urban areas with an estimated 145 million living in slums in 2001. What should be a fair measure for assessing success in enhancing health status of populations in any forecast on health care?

Disease Load in India and China:

29. We need a basis for comparative scenario building. Among the nations of the world China alone ranks in size and scale and in complexity comparable to India. Differences between an open and free society and a semi-controlled polity do matter. The remarkable success in China in combating disease is due to sustained attention on the health of the young in China, and of public policy backed by resources and social mobilization. While comparing China and India in selected aspects of disease load, demography and public expenditures on health, the record of India may seem mixed compared to the more all round progress made by China. But this should also be seen in the perspective of the larger burden of disease in India compared to China and of the transactional costs of an open and free democracy. The comparison made from WDR 1993 data may be seen in Table-5

TABLE – 5 Comparison between China and India – Burden of disease 1990

Demographic region	Communicable diseases and maternal and perinatal causes	Non-communicable diseases	Injuries
--------------------	---	---------------------------	----------

	DALYs lost (million)	Rate (per 1000 population)	DALYs lost (million)	Rate (per 1000 population)	DALYs lost (million)	Rate (per 1000 population)
Sub-Sahara Africa	208.6	408.7	56.8	111.4	27.3	53.5
India	147.7	173.9	118.0	138.9	26.7	31.4
China	50.9	44.9	116.8	103.0	33.6	29.7
Developing World	609.9	147.9	458.5	111.2	141.9	34.4
World	624.0	118.5	575.4	109.2	162.6	30.9

Source: World Development Report 1993.

30. There are reservations in some quarters on whether DALY as a measure should be adopted in preference to mortality data in countries with a weak vital data and whether the base data are sufficiently robust for sophisticated projection and analysis. Disregarding this for the moment, it may be noted that total absolute DALYs counted in millions and DALYs per 1000 population both suggest that the burden in China is about a third less than in India, with a population of about a third more. In communicable diseases, however, India has roughly double the burden, and in respect of TB, STDs Diarrhoea and maternal and peri-natal illness significantly less but still high. In non communicable diseases China has a load greater by 25 %, but almost double in cancer and CVD and pulmonary problems but at the same time much less in nutrition related diseases. In respect of injuries and accidents arising from rapid modernization and furious pace of life China has almost double the load of injuries over India. The magnitudes appear to be a true reflection of trends.

31. We have a more recent comparison from World Health Report 2001 in respect of selected demographic indicators and data from National Health Accounts. Tables 6 and 7 set out the key features:

Table 6 - Comparison between China and India – Demographic Indicators 2000

Country	Population Estimates			Life expectancy at birth (years)	
	Dependency ratio % m	Population aged 60+years %	Total fertility rate	1990	2000
China	46	10.0	1.8	68.9	73.0
India	62	7.6	2.1	59.8	62.7

Table 7 - Comparison between China and India – National Accounts data estimates

Item	China	India
Total exp. on health as percentage of GDP: 1998	4.5	5.1
Public health expenditure as % of total health expenditure: 1998	38.8	18.0

Private health exp. as % of total health expenditure: 1998	61.2	82.0
Public health expenditure as % of total Govt. expenditure : 1998	12.8	5.6
Out of pocket exp. as % of private health exp.: 1998	80.2	97.3

Source World health report - 2001.

32. Though India and China recorded the same rate of growth till 70s, China initiated reforms a full decade earlier. This gave it a head start for a higher growth rate and has resulted in an economic gap with India which has become wider over time. This is because domestic savings in China are 36% of GDP whereas in India it hovers at 23%, mostly in house-hold savings. Again, China attracted \$40 billion in foreign direct investment against \$2 billion in India. Special economic zones and relaxed labour laws have helped. Public expenditure on health in China has been consistently higher underlining the regressive nature of financing of health care in India. Nevertheless, it is not too unrealistic to expect that India should be able to reach by 2010 at least three fourth the current level of performance of China in all key health indices. India's current population is now a bit more than 75% that of China and India will of course be catching up even more with China into the 21 century. This would be offset by the handicap that Indian progress will be moderated by the fact that it is an open free and democratic society. A practical rule-of-thumb measure for an optimistic forecast of future progress in India could be – that between 2000 and 2010 India should do three fourths as well as China did in 1990-2000 and, after 2010, India should try to catch up with the rate of performance of China. and do just as well thereafter. This will translate into, for instance, a growth rate of about 8% for India till 2010 and as close to 10% as possible thereafter thus enabling doubling first in ten years and doubling twice over every seven years thereafter prior to 2025. Keeping this perspective in mind, we may now examine the profile of major disease control efforts, the effectiveness of available instruments for delivery and financing in public health action and assess factors relevant to the remaining extent of vulnerability within our emerging social pyramid over next two or three decades.

Major disease control efforts :

33. A careful analysis of the Global Burden of Disease (GBD) study focusing on age-specific morbidity during 2000 in ten most common diseases (excluding injuries) shows that sixty percent of morbidity is due to infectious diseases and common tropical diseases , a quarter due to life-style disorders and 13% due to potentially preventable peri-natal conditions. Further domestic R&D has been so far muted in its efforts Against an estimated annual aggregate health expenditure in India of Rs 80 000/- crores R&D expenditure in India for public and private sector combined was Rs 1150 crores only. India must play a larger part in its own efforts at indigenous R&D as very little world-wide expenditure on R&D is likely to be devoted to infectious diseases. For instance out of the 1233 new drugs that came into the market between 1975 and 1997 only 11 were indicated specifically for tropical country diseases.

34. We have already the distinction of elimination or control acceptable to public health standards of small pox and guinea worm diseases. In the draft National Health Policy -

2001 it has now been proposed to eliminate or control the following diseases within limits acceptable to public health practice. A good deal of the effort would be feasible.

- Polio Yaws and leprosy by 2005 which seems distinctly feasible though the removal of social stigma and reconstructive surgery and other rehabilitation arrangements in regard to leprosy would remain inadequate for a decade or more.
- Kalaazar by 2010 and Filariasis by 2010. which also seems feasible due to its localized prevalence and the possibility of greater community based work involving PR institutions in the simple but time- limited tasks of public health programs.
- Blindness prevalence to 0.5% by 2010 seems less feasible due to a graying population. At present the programme is massively supported by foreign aid as there are many other legitimate demands on domestic health budgets.
- AIDS reaching zero growth by 2007 appears to be problematic as there are disputes even about base data on infected population. On most reckonings, affordable vaccines are not likely to be available soon nor anti-retroviral drugs appear likely at affordable prices in the near future. Further the prevalence curve of Aids in India is yet to show its shape. There is also larger unresolved question of where HIV/AIDS should be fitted in our priorities of public health, especially in this massively foreign aided programme what happen if aid does not become available at some point.

Unfinished burden of communicable diseases:

35. Apart from the above, there remains a vast unfinished burden in preventing controlling or eliminating other major communicable diseases and in bringing down the risk of deaths in maternal and peri-natal conditions. Endemic diseases arising from infection or lack of nutrition continue to account for almost two thirds of mortality and morbidity in India. Indeed eleven out of thirteen diseases recommended by the Bhore Committee were infectious diseases and at least three of them may well continue to be with us for the next two decades Barring Leprosy which is almost on the path to total control by 2005, the other key communicable diseases will be TB Malaria and Aids – to which diarrhoea in children and complicated and high risk maternity should be added in view of their pervasive incidence and avoidable mortality among the poorer and under served sectors.

Tuberculosis:

36. Tuberculosis has had a worldwide resurgence including in India. It is estimated that about 14 million persons are infected, ie 1.5% of total population suffer from radiologically active Tuberculosis. About 1.5 million cases are identified and more than 300 000 deaths occur every year. Between NFHS 1 and NFHS 2 the prevalence has increased from 467 per lakh population to 544. Unfortunately, prevalence among working age adults (15-59) is even higher as 675. All these may well be underestimates in so far as patients are traced only through hospital visit. Only about half reach the hospital. Often wrong diagnosis by insufficiently trained doctors or misunderstood protocols is another key problem both in public and private sectors. TB is a widespread disease of poverty among women living and

working in ill ventilated places and other undernourished persons in urban slums It is increasingly affecting the younger adults also in the economically productive segments. No universal screening is possible. Sputum positive test does not precede diagnosis but drugs are prescribed on the basis of fever and shadows. As a result incomplete cure becomes common and delayed tests only prove the wrong diagnosis too late. Improved diagnosis through better training and clear protocols and elimination of drug resistance through incomplete cure should be priority. Treatment costs in case of drug resistance can soar close to ten times the normal level of Rs 3000 to 4000/- per person treated. Similarly even though the resistant strain may cover only 8% at present, it could suddenly rise and as it approaches 20% or so, there is a danger that TB may get out of control. The DOTS programme trying for full compliance after proper diagnosis is settling down but already has some claims of success. More than 3000 laboratories have been set up for diagnosis and about 1.5 lakh workers trained and with total population coverage by 2007 cure rates (already claimed to have doubled) may rise substantially. There is reason to hope that DOTS programs would prove a greater success over time with increased community awareness generation. The key issue is how soon and how well can it be integrated into the PHC system and made subject to routines of local accountability, without which no low cost regime of total compliance is feasible in a country as large as India.

An optimistic assessment could be that with commitment and full use of infrastructure it will be possible to arrest further growth in absolute numbers of TB cases keeping it at below 1.5 million till 2010 even though the population will be growing.. Once that is done TB can be brought down to less than a million lie within internationally accepted limits and disappears as a major communicable disease in India by 2025.

Malaria:

37. As regards malaria, we have had a long record of success and failure and each intervention has been thwarted by new problems and plagued by recrudescence. At present India has a large manpower fully aware of all aspects of malaria but often low in motivation. It can be transformed into a large-scale work force for awareness generation, tests and distribution of medicine. In spite of past successes, there is evidence of reemergence with focal attacks of malaria with the virulent falciparum variety especially in tribal areas. Priority to tribal area malaria stands fully funded by the center. About 2 million cases of malaria are recorded all over India every year with seasonal high incidence local failures of control. Drug resistance in humans and insecticide resistant strains of mosquitoes present a significant problem. But there is a window of opportunity in respect of DDT sensitive areas in eastern India where even now malaria incidence can be brought down by about 50% within a decade and be beneficial for control of kala-azar and JE. There is growing interest and community awareness of biological methods of control of mosquito growth. Unfortunately diligent ground level public health work is in grave disarray in these areas but can be improved by better supervision greater use of panchayatraj institutions and building on modest demonstrated successes. As regards a vaccine, there seems to be no sufficient incentive for international R&D to focus on a relatively lower priority of research. Roll back malaria programmes of the WHO are more likely to concentrate on Africa whose profile of malaria is not similar to ours. The search for a vaccine continues but has little likelihood of immediate success.

In spite of various difficulties, if the restructuring of the malaria work force and the strengthening of health infrastructure takes place, one can expect that the incidence can be reduced by a third or even upto half in the next decade or so. For this it is necessary that routine tasks like timely spraying and logistics for taking blood slides testing and their analysis and organic methods of reducing mosquito spread etc. are down staged to community level and performed under supervision through panchayats with community participation public education and local monitoring. Malaria can certainly be reduced by a third even upto a half in ten years, and there is a prospect of near freedom from malaria for most of the country by 2025.

The case of AIDS:

38. There is finally the case of HIV AIDS. The magnitude in the numbers of HIV infected and of AIDS patients by 2025 can be known only as trends emerge over a decade from now, when better epidemiological estimates are available but at present these figures are hotly contested. We can start with the number infected with HIV-as per NACO sentinel surveillance in 2000 a cumulative total 3.86 million, a figure disputed in recent public health debate. We can then assume that about 10% will turn into full-blown cases of severe and intractable stage of Aids. There is as yet no basis to know how many of those infected will become AIDS patients, preventive efforts focussed on behavior change will show up firmly only after a decade or so. During this period one can assume an additional 10% growth to account for new cases every year. The Draft NHP 2001 seeks to stop further infection by educating and counseling and condom supplies to level it off around 2007, which seems somewhat ambitious. We have yet to make a decisive dent into the problem of awareness within the broader population and so far we have been at work only on high risk groups. NFHS 2 shows only a third of woman reporting that they even knew about the HIV/AIDS. Further such awareness efforts must be followed by multi-pronged and culturally compatible techniques of public education that go beyond segments easier to be convinced or behavior changed. There are voices already raised about the appropriateness of IEC mass media content and of the under emphasis of face to face counseling, calling for innovative mobilisational strategies rooted in indigenous belief systems.

39. What it implies is that we may be carrying by 2015 close to 5 million infected and up to a tenth of them could turn into full blown cases. We may not be able to level off infection by 2007 Further these magnitudes may turn out in actual fact to be wildly off the mark. On any account it is clear that AIDS can lead to high mortality among the productive groups in society affecting economic functioning as also public health. Even if 10% of them say 50 to 60000 cases become full blown cases the state has the onerous and grim choice to look at competing equities and decide on a policy for free treatment of AIDS patients with expensive anti-retro viral drugs . And if it decides not to, the issue remains as to how to evolve humane balanced and affordable policies that do not lead to a social breakdown. In about a decade vaccine development may possibly be successful and drugs may be more effective but they may not always be affordable nor can be given free.

40. There would hopefully be wider consultation with persons with caring sensibilities including AIDS patients on how to counsel in different eventualities and to get the balance right between hospital and home care and how to develop a humane affordable

policy for anti retroviral drugs for AIDS patients. Is there a case for providing them with drug free of cost merely to extend their lives for few years? The matter involves a true dilemma, for public health priorities themselves certainly argue for more funds should address diseases constituting bigger population based hazards. Investments made in such expensive interventions can instead be made in supporting hospice efforts in the voluntary and private sectors.

41. Whatever position may emerge in research or spread of infection or case fatalities, a multi pronged attempt for awareness must continue and tough choices must get discussed openly without articulate special, often urban middle class interests denying other views and especially public health priorities of the poor. The promotion of barrier protection must increase but has to relate to a system of values which would be acceptable to the people's beliefs. We need to strengthen sentinel surveillance systems and awareness efforts . We also need sensitive feed back on the effects they leave on younger minds for a balanced culturally acceptable strategy All this is feasible and can be accomplished if we are not swept away by the power of funding and advocacy and fear of being accused to be out of line with dominant world opinion.

42. In any case many of the ill cannot afford the high prices or have access to it from public agencies. The strict patent regimen under TRIPS is bound to prevail, notwithstanding the ambivalently worded Doha decision of WTO that public health emergencies provide sufficient cause for countries to use the flexibility available from various provisions of TRIPS. A recent analysis reveals that the three drug regimen recommended will cost \$ 10 000 per person per year from Western companies and the treatment will be lifelong. Three Indian companies are offering to Central Government anti retro viral drugs at \$ 600 /Rs 30 000/- per person per year and to an international charity at an even lower price \$ 350 /Rs 13 000/- per year provided it was distributed for humanitarian relief free in S Africa. It has been public policy in Brazil that the drug is supplied free to all AIDS patients. South Africa won the stand off with drug companies on prices relying on an Indian company's offer. In our National programs drugs are free and it is argued that AIDS should be no exception. If drugs are supplied acting on a public health emergency basis and prices can stabilize at Rs 1000/- or so per year the public health budget should be able to accommodate the cost weighed against true public health criteria. But the aim of levelling off infection of 2007 still seems unlikely.

Maternal and perinatal deaths:

43. Maternal and perinatal deaths are sizeable but the advantage here is that they can be prevented merely by more intensive utilization of existing rural health infrastructure. Policy and implementation must keep steady focus on key items such as improved institutional deliveries better trained birth attendants and timely antenatal screening to eliminate anaemia and at the same time isolate cases needing referral or other targeted attention After all Tamil Nadu has by such methods ensured close to 90% institutional deliveries backed by a functional referral.. Firm administrative will and concurrent supervision of specified screening tasks included in MCH services can give us a window of opportunity to dramatically bring down within a few years alarming maternal mortality

currently one of the highest in the world .From NFHS I data, it was estimated at 424 per lac births it has risen to 540 per lac births in NFHS II, but the WHO estimate puts it higher at 570. There can be a systematic campaign over five years to increase institutional deliveries as near as possible to the Tamil Nadu level, also taking into account assisted, home deliveries by trained staff with doctors at call. For the interim TBAs should be relied on through a mass awareness campaign involving GramPanchayats too. Over a period of time there is no reason why ANMs themselves cannot be used for simple first line screening such as blood pressure readings, intra-uterine growth and procedures for referral.

It can therefore be a feasible aim to reduce maternal mortality from the present 400 to about 100 per lakh population by 2010. In case this is achieved, we can optimistically attain world's standard in safe delivery by 2020. But having regard to the difficulties in ensuring a gamut of dispersed activities and antenatal delivery services, it would be realistic to expect that the targets would be achieved five years later.

Child health and nutrition:

44. Associated with this is the issue of infant and child mortality, (70 out of 1000 dying in the first year and 98 before five years)and low birth weight (22.5% UW at birth and 47% UW at below 3 years) Most mortality occurs from diarrhoea and the stagnation in IMR in the last few years is bound to have a negative effect on population stabilization goals. A recent review of the Ninth plan indicated that even with accelerated efforts we may reach at best IMR/50 by 2002, but more likely IMR/56. Since the easier part of the problem in taking child mortality is over every point gain hereafter will deal with districts at greater risk and needing better organizational efficiencies in immunization. At the same time, more streamlined RCH services are getting established as part of public systems and through private partnerships. Therefore there is every reason to hope that the NPP 2000 target of 30 per thousand live births by 2010 will be met barring a few pockets of inaccessible and resource lean areas with stubborn persistence of poverty and dominantly composed of weaker sections (eg in parts of Orissa as seen from NFHS II)

45. As regards childhood diarrhoea, deaths are totally preventable by simple community action and public education by targeting children of low birth weight and detecting early those children at risk from malnutrition through a proper low cost screening procedure The present arrangement has got too burdened with attempting total population coverage Getting all children weighed even once in three months and making ANMs depots for ORS and for simple drugs for fever and motivating the community to take pride in healthy children are the lessons of the success of the Tamil Nadu Nutrition project. .If this is done there is a reasonable chance of two thirds decline in moderate malnutrition and abolition of serious grades completely by 2015.The success can be built upon till 2025 for reaching levels comparable to China.

46. Concentration on preventive measures of maternal and child health and in particular improved nutrition services will be particularly useful because it will help that generation to have a head start in good health who are going to be a part of the demographic

bonus .The bonus is a young adult bulge of about 340 million (with not less than 250 million from rural population and about 100 million born in this century) The bonus will appear in a sequence with South Indian States completing the transition before North Indian States spread it over the next three decades To ensure best results at this stage the present nutritional services must be converted into targeted (and entitled) benefits of children to help in their growth and not remain as welfare measure. Using the infrastructures fully and with community participation and extensive social mobilisation many tasks in nutrition are feasible and can be in position to make impact by 2010.

Mild and moderate malnutrition still prevalent in over half of our young population. can be halved if food as the supplemental pathway to better nutrition becomes a priority both for self reliance and lower costs. There has been a tendency for micro nutrient supplementation to overwhelm food derived nourishment .This trend is assisted by foreign aid but over a long run may prove unsustainable .By engaging the adolescents into proper nutrition education and reproductive health awareness we can seamlessly weave into the nutritional security system of our country a corps of informed women just entering into their adulthood. The synergies are immense and many interconnected and imaginative ideas can be tried out. Such social mobilization at low cost can be the best preventive strategy as has been advocated for long by the Nutrition Foundation of India (< Gopalan 2001) and can be a priority in this decade over the next two plan periods.

Unfinished agenda – non communicable diseases and injuries:

47. Three major such diseases viz., cancer cardiovascular diseases and renal conditions – and neglect in regard to mental health conditions - have of late shown worrisome trends. Cures for cancer are still elusive in spite of palliatives and expensive and long drawn chemo- or radio- therapy which often inflict catastrophic costs. In the case of CVD and renal conditions known and tried procedures are available for relief. There is evidence of greater prevalence of cancer even among young adults due to the stress of modern living. In India cancer is a leading cause of death with about 1.5 to 2 million cases at any time. to which 7 lac new cases are added every year with 3 lakh deaths .Over 15 lakh patients require facilities for diagnosis and treatment.. Studies by WHO show that by 2026 with the expected increase in life expectancy, cancer burden in India will increase to about 14. lac cases. CVD cases and Diabetes cases are also increasing with an 8 to 11 % prevalence of the latter due to fast life styles and lack of exercise. Traumas and accidents leading to injuries are offshoots of the same competitive living conditions and urban traffic conditions Data show one death every minute due to accidents or more than 1800 deaths every day – in Delhi alone about 150 cases are reported every day from accidents on the road and for every death 8 living patients are added to hospitals due to injuries. There is finally the emerging aftermath of insurgencies and militant violence leading to mental illnesses of various types. It is estimated that 10 to 20 persons out of 1000 population suffer from severe mental illness and 3 to 5 times more have emotional disorder .While there are some facilities for diagnosis and treatment exist in major cities there is no access whatever in rural areas It is acknowledged that the only way of handling mental health problems is through including it into the primary health care arrangements implying trained screening and counseling at primary levels for early detection.

48. All these are eminently feasible preventive steps and can be put into practice by 2005 and we should be doing as well or better than China by 2025 considering the greater load of non communicable diseases they bear now. The burden of non-communicable diseases will be met more and more by private sector specialized hospitals which spring up in urban centers. Facilities in prestigious public centers will also be under strain and they should be redesigned to take advantage of community based approach of awareness, early detection and referral system as in the model developed successfully in the Regional Cancer Center Kerala. Public sector institutions are also needed to provide a comparator basis for costs and evaluating technology benefits. For the less affluent sections prolonged high tech cure will be unaffordable. Therefore public funds should go to promote a routine of proper screening, health education and self care, and timely investigations to see that interventions are started in stages I and II.

Health Infrastructure in the public sector

49. Issues in regard to public and private health infrastructure are different and both of them need attention but in different ways. Rural public infrastructure must remain the mainstay for wider access to health care for all without imposing undue burden on them. Side by side the existing set of public hospitals at district and sub-district levels must be supported by good management and with adequate funding and user fees and out contracting services, all as part of a functioning referral net work. This demands better routines more accountable staff and attention to promote quality. Many reputed public hospitals have suffered from lack of autonomy inadequate budgets for non-wage O&M leading to faltering and poorly motivated care. All these are being tackled in several states as part health sector reform, and will reduce the waste involved in simpler cases needlessly reaching tertiary hospitals direct. These attempts must persist without any wavering or policy changes or periodic denigration of their past working. More autonomy to large hospitals and district public health authorities will enable them to plan and implement decentralized and flexible and locally controlled services and remove the dichotomy between hospital and primary care services. Further, most preventive services can be delivered by down staging to a public health nurse much of what a doctor alone does now. Such long term commitment for demystification of medicine and down staging of professional help has been lost among the politicians bureaucracy and technocracy after the decline of the PHC movement. One consequence is the huge regional disparities between States which are getting stagnated in the transition at different stages and sometimes, polarised in the transition. Some feasible steps in revitalizing existing infrastructure are examined below drawn from successful experiences and therefore feasible elsewhere.

Feasible Steps for better performance:

50. The adoption of a ratio based approach for creating facilities and other inputs has led to shortfalls estimated upto twenty percent .It functions well where ever there is diligent attention to supervised administrative routines such as orderly drugs procurement adequate O&M budgets and supplies and credible procedures for redressal of complaints. Current PHC CHC budgets may have to be increased by 10% per year for five years to draw level. The proposal in the Draft NHP 2001 is timely that State health expenditures be raised to to 7% by 2015 and to 8% of State budgets thereafter. Indeed the target could be

stepped up progressively to 10% by 2025. It also suggests that Central funding should constitute 25% of total public expenditure in health against the present 15%. The peripheral level at the sub center has not been (and may not now ever be) integrated with the rest of the health system. having become dedicated solely to reproduction goals. The immediate task would be to look for deepening the range of work done at all levels of existing centers and in particular strengthen the referral links and fuller and flexible utilization of PHC/CHCs. Tamil Nadu is an instance where a review showed that out of 1400 PHCs 94% functioned in their own buildings and had electricity. 98% of ANMs and 95% of pharmacists were in position. On an average every PHC treated about 100 patients .224 out of the 250 open-24 -hour PHCs had ambulances. What this illustrates is that every State must look for imaginative uses to which existing structures can be put to fuller use .such as making 24 hours services open or trauma facilities in PHCs on highway locations etc.

51. The persistent under funding of recurring costs has led to the collapse of primary care in many States , some spectacular failures occurring in malaria and Kalazar control. This has to do with adequacy of devolution of resources and with lack of administrative will probity and competence in ensuring that determined priorities in public health tasks and routines are carried out timely and in full Only genuine devolution of simpler tasks and resources to panchayats, where there will be a third women members, can be the answer as seen in Kerala or M.P. where panchayats are made into fully competent local governments with assigned resources and control over institutions in health care. Many innovative cost containment initiatives are also possible through focussed management - as for instance in the streamlining of drug purchase stocking and distribution arrangements in Tamil Nadu leading to 30% more value with same budgets.

52. The PHC approach as implemented seems to have strayed away from its key thrust in preventive and public health action. No system exists for purposeful community focussed public information or seasonal alerts or advisories or community health information to be circulated among doctors in both private practice and in public sector. PHCs were meant to be local epidemiological information centers which could develop simple community information sheets based on reporting from a network associating private doctors also as has been done successfully at CMC Vellore in their rural health projects or by the Khoj projects of the Voluntary Health Association of India .It is only through such community based approach that revitalization of indigenous medicines can be done and people trained in self care and accept responsibility for their own health.

53. PHC approach was also intended to test the extent to which non-doctor based healthcare was feasible through effective down staging of the delivery of simpler aspects of care as is done in several countries through nurse practitioners and physician assistants., ANMs, physician assistants etc can each get trained and recognized to work in allotted areas under referral /supervision of doctors. This may indeed be more acceptable to the medical profession than the draft NHP proposal to restart licentiates in medicine as in the thirties and give them shorter periods of training to serve rural areas .Such a licentiate system can not now be recalled against the profession's opposition nor would people accept two level services.

54. Finally it is important to note some dangers inherent in arrangements that promote delivery systems substantially outside government channels either through NGOs or through registered societies at State and district levels. Clearly this may be a better approach than leaving it to the market and welcome as path breaking or innovative efforts as a precursor to launching a public program.. But as a long run delivery mechanism it is neither practical nor sustainable as such arrangements tend to bypass government under our constitutional scheme of parliamentary responsibility and would also cut into the potential of panchayatraj institutions. Each major disease control program has now got a separate society at state and district levels often as part of access to foreign aid. What is lost is the principle of parliamentary accountability over the flow of funds that arise out of voted budgets and international agreements to which Government is a party and answerable to parliament. Like campaign modes and vertical interventions, the registered society approach would weaken the long term commitment and integrity of public health care systems.

Shape of the private sector in medicine:

The key features of the private sector in medical practice and health care are well known. Two questions are relevant. What role should be assigned to it? How far and how closely should it be regulated? Over the last several decades, independent private medical practice has become widespread but has remained stubbornly urban with polyclinics, nursing homes and hospitals proliferating often through doctor entrepreneurs. At our level tertiary hospitals in major cities are in many cases run by business houses and use corporate business strategies and hi-tech specialization to create demand and attract those with effective demand or the critically vulnerable at increasing costs. Standards in some of them are truly world class .and some who work there are outstanding leaders in their areas. But given the commodification of medical care as part of a business plan it has not been possible to regulate the quality, accountability and fairness in care through criteria for accreditation, transparency in fees, medical audit, accountable record keeping, credible grievance procedures etc. Such accreditation, standard setting and licensure systems are best done under self regulation, but self regulation systems in Indian medical practice have been deficient in many respects creating problems in credibility. Acute care has become the key priority and continues to attract manpower and investment into related speciality education and facilities for technological improvement. Common treatments, inexpensive diagnostic procedures and family medicine are replaced and priced out of the reach of most citizens in urban areas. Tertiary hospitals had been given concessional land, customs exemption and liberal tax breaks against a commitment to reserve beds for poor patients for free treatment. No procedures exist to monitor this and the disclosure systems are far from transparent, redressal of patient grievances is poor and allegations of cuts and commissions to promote needless procedure are common.

The bulk of noncorporate private entities such as nursing homes are run by doctors and doctor - entrepreneurs and remain unregulated either in terms of facility or competence standards or quality and accountability of practice and sometimes operate without systematic medical records and audits. Medical education has become more expensive and with rapid technological advances in medicine, specialization has more attractive rewards. Indeed the reward expectations of private practice formerly spread out over career long earnings are squeezed into a few years. which becomes possible only by working in hi tech hospital some times run as businesses. The responsibilities of private sector in clinical and preventive public health services were not specified though under the

NHP 1983 nor during the last decade of reforms followed up either by government or profession by any strategy to engage, allocate, monitor and regulate such private provision nor assess the costs and benefits of subsidization of private hospitals. There has been talk of public-private partnerships, but this has yet to take concrete shape by imposing public duties on private professionals, wherever there is agreement on explicit public health outcomes. In fact it has required the Supreme Court to lay down the professional obligations of private doctors in accidents and injuries who used to be refused treatment in case of potential becoming part of a criminal offence.

The respective roles of the public and private sectors in health care has been a key issue in debate over a long time. With the overall swing to the Right after the 1980s, it is broadly accepted that private provision of care should take care of the needs of all but the poor. In doing so, risk pooling arrangements should be made to lighten the financial burden on those who pay for health care. As regards the poor with no capacity to pay, government should continue to provide both free and reasonably priced services. Taking into account the size of the burden, clinical and public health services cannot be shouldered for all by government alone. To a large extent this approach is likely to prevail as a consensus over the near future and a good deal of health sector reform in India at the state level confirms this trend. The distribution of the burden between the two sectors would depend on the shape and size of the social pyramid in each society. There is no objection to introduce user fees, contractual arrangements, risk pooling, etc. for mobilisation of resources for health care. But, the line should be drawn not so much between public and private roles, but between institutions and health care run as businesses or run in a wider public interest as a social enterprise with an economic dimension. In a market economy, health care is subject to three links, none of which should become out of balance with the other – the link between state and citizens' entitlement for health, the link between the consumer and provider of health services and the link between the physician and patient.

Health financing issues

Public expenditure levels:

55. Fair financing of the costs of health care is an issue in equity and it has two aspects. How much is spent by Government on publicly funded health care and on what aspects? And secondly how huge does the burden of treatment fall on the poor seeking health care? Health spending in India at 6% of GDP is among the highest levels estimated for developing countries. In per capita terms it is higher than in China, Indonesia and most African countries but lower than in Thailand. Even on PPP \$ terms India has been a relatively high spender. Public health spending accounts for 25% of aggregate expenditure, the balance being out of pocket expenditure incurred by patients to private practitioners of various hues. Public spending on health in India has itself declined after liberalisation from 1.3% of GDP in 1990 to 0.9% in 1999. Central budget allocations for health have stagnated at 1.3% of total Central budget. In the States it has declined from 7.0% to 5.5% of State health budget. Consider the contrast with the Bhore committee recommendation of 15% committed to health from the revenue expenditure budget. Indeed WHO had recommended 5% of GDP for health. The current annual per capita public health expenditure is no more than Rs 160 and a recent World Bank review showed that over all primary health services account for 58% of public expenditure mostly but on salaries, and the secondary/tertiary

sector for about 38.%, perhaps the greater part going to tertiary sector. including government funded medical education. Out of the total primary care spending, as much as 85% was spent on or curative services and only 15% for preventive services. < World Bank 1995 > About 47% of total Central and State budgets is spent on curative care and health facilities This may seem excessive at first sight but in fact the figure is over 60% in comparable countries, with the bulk of the expenditure devoted publicly funded care or on mandated or voluntary risk pooling methods, in India close to 75% of all household expenditure on health is spent from private funds and the consequent regressive effects on the poor is not surprising. In this connection, the proposals in the draft NHP 2000 are welcome seeking to restore the key balance towards primary care, and bring it to internationally accepted proportions in the course of this decade.

Private expenditure trends:

56. Many surveys confirm that when services are provided by private sector it is largely for ambulatory care and less for inpatient care. There are variations in levels of cost, pricing, transactional conveniences and quality of services There is evidence to suggest that disparities in income as such do not make a difference in meeting health care costs, except that where services cost too high relative to income it simply leads to non utilization of care except for catastrophic or life threatening situations. Finally it has been established that between 2/3rds to 3/4ths of all medical expenditure is spent on privately provided care Every household on the average spends up to 10% of annual household consumption in meeting health care needs. This regressive burden shows up vividly in the cycle of incomplete cure followed by recurrence of illness and drug resistance that the poor face in diseases like TB or Kalazar or malaria especially for daily wage earners who cannot afford to be out of work.

57. Privatization has to be distinguished from private medical practice which has always been substantial within our mixed economy. What is critical however is the rapid commercialization of private medical practice in particular uneven quality of care. There are complex reasons for this trend. First is the high scarcity cost of good medical education, and second the reward differential between public and corporate tertiary hospitals leading to the reluctance of the young professional to be lured away from the market to public service in rural areas and finally there is the compulsion of returns on investment whenever expensive equipment is installed as part of practice. Increasingly, this has shifted the balance from individual practice to institutionalised practice, in hospitals, polyclinics, etc. This conjunction explodes into unbearable cost escalation when backed by a third party payer system This in turn induces increases in insurance premiums making such cover beyond the capacity to pay .There is a distinct possibility of such cycles of cost escalation periodically occurring in the future, promoted further by global transfer of knowledge and software, tele-medicine etc. especially after the advent of predictive medicine and gene manipulation.

58. Doctors practicing in the private sector are sometimes accused of prescribing excessive, expensive and risky medicines and with using rampant and less than justified use of technology for diagnosis and treatment. Some method of accreditation of hospitals and facilities and better licensure systems of doctors is likely within a decade. This will enable some moderation in levels of charges in using new technology. High cost of care is sometimes sought to be justified as necessary due to defensive medicine practiced in order

to meet risks under the Consumer Protection Act. There is little evidence from decisions of Consumer courts to justify such fears. While the line between mistaken diagnosis and negligent behavior will always remain thin, case law has already begun to settle around the doctor's ability to apply reasonable skills and not the highest degree of skill. What has been established is the right of the patient to question the treatment and procedures if there is failure to treat according to standard medical practice or if less than adequate care was taken. As health insurance gets established it may impose more stringent criteria and restrictions on physician performance which may tempt them into defensive medicine. There may also be attempts at collusive capture and (indirect ownership) of insurance companies by corporate hospitals as in other countries. Advances in medical technology are rapid and dominant and easily travel world wide and often seen as good investment and brand equity in the private sector. Private independent practices – and to smaller extent hospitals, dispensaries, nursing homes etc - are seen as markets for medical services with each segment seeking to maximise gains and build mutually supporting links with other segments. More than one study on the quality of care indicates that sometimes more services are performed to maximize revenue, and services/medicines are prescribed which are not always necessary. Allegations are also widely made of collusive deals between doctors and hospitals with commissions and cuts exchanged to promote needless referral, drugs or procedures < World Bank A 1995 >. Appropriate regulation is likely in the next decade for minimum standards and accountability and that should consist of a balanced mix of self regulation, external regulation by standard setting and accreditation agencies including private voluntary health insurance.

How far can health insurance help?

59. What constitutes a fair distribution of the costs of care among different social groups will always be a normative decision emerging out of political debate. It includes risk pooling initiatives for sharing costs among the healthy and the sick leading to insurance schemes as a substitute for or as supplementary to State provision for minimum uniform services. It also covers risk sharing initiatives across wealth and income involving public policy decisions on progressive taxation, merit subsidy and cross subsidization by dual pricing. Both will continue to be necessary in our conditions with more emphasis on risk sharing as growth picks up. Risk pooling within private voluntary and mandated insurance schemes has become inevitable in all countries because of the double burden of sickness and to ensure that financial costs of treatment do not become an excessive burden relative to incomes. It is difficult but necessary to embed these notions of fair financing into legislation, regulations and schemes and programs if equity is aimed at in health care.

60. With the recent opening up of the general Insurance sector to foreign companies, there is the prospect of two trends. New insurance products will be put out to expand business more by deepening than widening risks covered. The second trend would be to concentrate on urban middle and upper classes and settled jobholders with capacity to pay and with a perceived interest in good health of the family. Both trends make sound business sense in a vast growth market and would increase extensive hospital use and protection against huge hospitalisation expenses, and promoted by urban private hospitals since their clientele will increase. Insurance is a welcome necessary step and must doubtless expand to help in facilitating equitable health care to shift to sections for which government is responsible. Indeed for those not able to access insurance it is government that will have to

continue to provide the minimum services, and intervanance against market failures including denial through adverse selection or moral hazard . Indeed in the long run the degree of inequity in health care after insurance systems are set up will depend ironically on the strength and delivery of the public system as a counterpoise in holding costs and relevance in technology.

61. The insurable population in India has been assessed at 250 million and at an average of Rs 1000/- per person the premium amount per year would be Rs 25 000/- crores and is expected to treble in ten years. While the insurance product will dutifully reflect the demands of this colossal market and related technological developments in medicine, it should be required to extend beyond hospitalization and cover domiciliary treatment too in a big way, for instance, extending cover to ambulatory maternal and selected chronic conditions like Asthma more prevalent among the poor. The insurance regulatory authority has announced priority in licensing to companies set up with health insurance as key business and has emphasized the need for developing new products on fair terms to those at risk among the poor and in rural areas. Much will turn on what progress takes place through sound regulation covering aspects indicated below. In order to be socially relevant and commercially viable the scheme must aim at a proper mix of health hazards and cover many broad social classes and income groups This is possible in poor locations or communities only if a group view is taken and on that basis a population- based risk is assessed and community rated premiums determined covering families for all common illnesses and based on epidemiologically determined risk. In order that exclusions co-payments deductibles etc. remain minimum and relevant to our social situation, some well judged government merit subsidy can be incorporated into anti poverty family welfare or primary education or welfare pension schemes meant for old age. Innovative community based new products can be developed by using the scattered experience of such products for instance in SEWA, so that a minimum core cover can be developed as a model for innovative insurance by panchayats .with reinsurance backup by companies and government bearing part of promotional costs. The bulk of the formal sector may be covered by an expanded mandatory insurance with affordable cover and convenient modes of premium payment. Outside the formal manufacturing sector innovative schemes can be designed around specific occupation groups in the informal sector.- which are steadily becoming a base for old age pension entitlements, as in Kerala and Tamil Nadu - and brought under common risk ratings. Finally, as in the West health insurance should develop influence and capacity as bulk purchasers of medical and hospital services to impact on quality and cost, and provide greater understanding about Indian health and illness behaviour, patterns of utilisation of care and intra family priorities for accessing medical care. Health insurance should be welcomed as a force for a fairer healthcare system. But its success should be judged on how well new products are developed with a cover beyond hospitalization, how fairly and inclusively the cover is offered and how far community rated premiums are established. The IRDA has an immense responsibility and with its leadership one can optimistically expect about 30% coverage by 2015 relieving the burden on the public systems.

Health perceptions and plural systems:

62. Health perceptions play an important part in ensuring sound health outcomes. To a large extent they are culturally determined but also subject to change with economic growth and social development. People intuitively develop capacity to make choices for

being treated under the western or indigenous systems of medicines, keep a balance between good habits traditionally developed for healthy living and modern lifestyles, decide on where to go for chronic and acute care and how to apportion intra-family utilisation of health care resources. The professional is generally bound by his discipline and its inherent logic of causation and effect and tends to discount even what works as successful practice, if it does not fall within the accepted understanding of his profession. Some movement is occurring among eminent allopathic doctors trying, for instance, to rework ayurveda theory in a modern idiom starting from respectful reverse analysis of actual successful contemporary practice of Ayurveda and provide a theoretical frame linking it to contemporary needs. There is evidence from public health campaigns in Tamil Nadu where every seventh person spontaneously expressed a preference for Siddha Medicine. Homeopathy for chronic ailment is widely accepted. The herbal base for Ayurveda medicine widely practiced in the Himalayan belt has drawn world attention. A huge export market remains to be tapped according to the knowledgeable trade sources but the danger of bio-privacy remains and legal enablements should be put in place soon that would fully expand on our rights under the WTO agreements. The draft national policy on ISMH has attempted to place these plural systems in a modern service delivery and research and education context. It has covered its natural resource base, traditional knowledge base and development of institutions to carry a national heritage forward. There is hope for the survival and growth of the sector only if it becomes an example of convergence between people's and planner's perceptions and ensure its relevance, accountability and affordability to contemporary illnesses and conditions. At the same time it is undeniable that there is much cross practice by ISM practitioners which usually include prescriptions of western medicine as part of indigenous treatment. Appropriate regulation is needed. to protect people from fraud and other dangers but the larger question is how to make the perceptions of the professionals and planners regarding indigenous system of medicine less ambivalent. The separate department for ISM&H should be able to bring about functional integration of ISM and western medicine in service delivery at PHC levels by 2005 whereby it will usher in an uniquely Indian system of care.

Impact of reforms and disparities:

63. What has been the impact of economic reform on general development and its further expression into the health sector? The first flush of reforms has put the country on a 5 to 6% rate of annual growth with expectations that after the next generation of reforms it will go up to 7 to 8% and possibly beyond. Periods of doubling of GNP on these bases can range from an optimistic 8 to 9 years to a realistic 10 to 12 years assuming always that the target of TFR 2.1 is reached for the country as a whole by 2010. Two segments seem to have fared badly through economic reform implemented so far - namely rural poor - due to adverse terms of trade and low investment in agriculture and consequent poor rural income distribution - and the urban poor - on account of casualization of labour and uncertainty created in life choices, especially education and health care of the young. Both these segments will account at any time close to a third of the population mostly concentrated in some Northern States till about the middle of 21st century. A recent study (Mari bhat - 2000) indicates that the littoral region of peninsular India has become one single stretch covering upto the east and west coast with overall better functioning on several indices. It has had a decline in population growth over a decade of more than one birth per woman. Contrast this with heartland India with poor health facilities and crumbling health infrastructure where the decline is only by half a birth or less. The residual core of five most backward regions of India on an overall assessment of social demographic and health determinants appear to fall

in parts of north Bihar plain, Bundelkhand, Bhojpur, south western plains of UP and the extreme arid regions of Rajasthan – together accounting for a total population of 100 million, that is a tenth of India.

64. A detailed interstate study relevant to the same issue of differential rates of growth (Ahluwalia 2000). indicates the uneven growth performance among states during the 1990s. Even though growth accelerated for the economy as a whole it has declined in states which had no locational advantage to attract investors in a globalizing world. Almost a third of the total population of India live in such locations and even, if the rest of the states enjoyed better growth the drag effect would affect overall national growth and its play into politics. The study has emphasized the priority to the onerous task of doubling growth from the current 1.5% per capita to about 3.5 to 4 % per capita in the States of Bihar, Orissa and UP – with a combined population of about 300 million Without that the overall growth of the economy cannot sustain even 6% growth which is at the lower end of projections.

65. This stubborn persistence of poverty in some areas is bound to have its impact on patterns of malnutrition deprivation and morbidity among social groups, especially those with unstable livelihood and progressive impoverishment. Their skills can be applied to resources over which they have command, which is largely in agriculture where land reform has remained a forgotten priority. There is no direction to elaborating economic reforms into the agriculture sector. In sum, the growth of the macro economy after reform has benefited those who are able to command resources or acquire new skills or already possessed capabilities For those who are not so skilled nor yet retrained or too old to be so retrained, reform has been singularly incapable of providing stable livelihoods pushing them sometimes into suicide and crime.. Hence in the painful transition many under privileged will continue to look to publicly provided health care as an anchor, and hesitate to accept the challenge of personal responsibility an integral element of the health scene market economies for one's own health, which is espoused also on the basis of giving wider choice to the patient to exercise his right to choose. While it may apparently sound attractive sections there is grave lack of realism in the wholesale adoption of such an approach within a deeply unequal non-inclusive society.

66. The prime effect of reform has however been compression of public expenditure .in the States and the Center. Some tentative steps have been taken by different States to liberalize and reform the health sector. .Many large hospitals have been made autonomous to help improve their financial position by levying user fees, contracting out services and exploring other avenues for resources .Procurement of drugs has been streamlined and steps taken to lay down lists of essential drugs and standard formularies for hospitals. PHCs have been handed over to NGOs and to private companies for management and there is diligent explorations of concrete patterns of public-private partnership. Clearly the trickle down effects anticipated fom economic growth has so far not been able to deal

with the opportunities and uncertainties engendered by structural change. It is unlikely that the base of the social pyramid would change substantially over the next two or three decades even on optimistic expectations. The base would not only refer to those technically below the poverty line (which might decline to as low as 10% in the next two decades) but a substantial population located just above the poverty line, but plagued with huge uncertainties and decline of known patterns of livelihood Trends that have emerged during the last decade .show greater inequality from economic reform – including health inequalities in access, allocations and quality of care which could in short lead to a declining health status of the poor and increased health costs .The key lies in committed public policy backed by national commitment and social imagination keeping, as Amartya Sen persuasively argues, a balance between growth-mediated or support-led development paths as may be appropriate to the country's current stage of development. In India the right balance in such health planning awaits a new National Health Policy whose draft does not inspire confidence about health priorities of common concern.

Multiple transitions:

67. India is in the midst of multiple transitions – principally dominated by the effects of globalising trends and demographic and epidemiological and urban transitions - each affecting the other. Some have global origins and others are the result of domestic factors, but together they will decisively determine the country's progress in future. The overarching transition concerns globalisation and its impact. Over the last two decades, the pendulum has swung in favor of privatized production of good services due to the prevailing power of the Washington Consensus promoted by international agencies set up for developmental finance, monetary policy regulation and international free trade. They have promoted a consistent vision of the global economy to be pursued even if it widens disparities while it may make macro-economic sense, it has for reaching political economy implications acutely in the short run. The gap in per capita income between countries with the richest 20% and countries with the poorest 20% has already increased from 30 to 1 (1960) to 60 to 1 (1990) and to 74 to 1 (1995).The current interest in globalization is also the result of the pace of scientific discovery and maximising its commercial value to enterprises able to procure, produce and market globally. The global political environment has also changed dramatically with a single super power. It is clear now that despite individual governments opposed to it globalization will continue to be promoted as a force for modernization and on grounds of competitive efficiency and consumer satisfaction and a world shrunk by technological advances. There is also no doubt that it will lead to spread of crime, infection, terrorism and diseases and can as quickly transmit economic recessions, financial volatility, health hazards and cultural invasions through free trade promoted by WTO and strict enforcement of the patent regimes within the health sector, It would result in further oligarchic restructuring of drug companies controlling the pricing and availability of products critical to public health benefiting from the pharmaceutical fallout of advances in genetics and biotechnology.. The recent stand-off between South Africa and the drug Companies in the pricing of Anti-Aids drugs shows both the force of competing equities facing governments and the power of differential pricing available to multinational enterprises. There would also be growth of tele-medicine with treatment from a distance and rapid second expert opinions likely to be promoted by tertiary hospitals, but tele-medicine can enhance quality of medical care for the vast majority only when the first level primary care works. It is not clear how far WHO as the health conscience of the world would be able to engage WTO for a balance between freedom of trade and international solidarity in health.

As regards the demographic transition the cause for disquiet is a possible delay to reach TFR /2.1 in some States by a decade or more and consequent effect on population stabilisation goals. There would be also be a clear divide between northern and southern states in demographic transition with large political and constitutional consequences. Even within major lagging north Indian states the position is particularly is adverse in Bihar and U.P. the two largest states. There is also the spectre of the adverse sex ratio for the country, in particular in some northern states which have shown rapid economic growth but slow social development. What is worse is the adverse ratio in respect of female children below age 6, an indication of the disastrous consequences of sex selection methods to eliminate female children. Clearly just as health has to be factored in as a constituent of development, so should empowering women of all ages be a constituent of development. Finally the rise of the numbers of the aged and the health implications of aging will bring up, the problem of dependency and need for protective social assistance especially for those aged, who are female rural and illiterate. Another cause for disquiet is the preponderance of women in the proportion of elderly having circulatory disorders. It is estimated that in most common impairments associated with aging only about 2/3rds are able to access effective assistance. The positive factor is that among most developing countries India alone would have a substantial increase in adult working age population, provided they can be gainfully absorbed in the growing economy.

As regards the urbanization process, it is already imposing tremendous strain on the capacity of cities to respond to needs. About 30% of the country's population are already urban and one estimate puts it at 50% living in cities by 2031. A large proportion of migrants live in under-serviced/illegal settlements in environmentally degraded conditions. Urban health systems suffer from fragmentation, poor vertical integration and limited primary care services – apart from lack of professional management and absence of community involvement. Since most of these services are out of pocket, there is no incentive for quality and value for money. Public hospitals which function as a last resort should be given more autonomy, if necessary partnering with NGO sector. Growingly in urban areas government would assume a purchaser role or promote properly regulated voluntary private health insurance as well as mandated social insurance. There can also be a potential scenario in which regional sickness funds could be set up in each industry group which contract for competitive comprehensive coverage either directly with providers or through managed care intermediaries.. In a federal structure, where local bodies are becoming units of democratic decentralization, it may be useful to centralize the formulation of criteria and standards but permit implementation of standards according to the criteria at the local level.

Emerging Scenario

What then can we conclude about the prospects of health care in India in 2025? An optimistic scenario will be premised – see para (32) above – on an average 8% rate of economic growth during this decade and 10% per annum thereafter. If so, what would be the major fall out in terms of results on the health scene? In the first place, longevity estimates can be considered along the following lines. China in 2000 had a life expectancy at birth of 69 years (M) and 73 years (F) whereas India had respectively 60 (M) and 63 (F). More importantly, healthy life expectancy at birth in China was estimated in the World Health Report 2001 at 61 (M) and 63.3(F) whereas the Indian figures were 52 (M) and 51.7

(F). If we look at the percentage of life expectancy years lost as a result of the disease burden and effectiveness of health care systems, Chinese men would have lost 11.6 years against Indian men losing 12.7 years. The corresponding figures are 13.2 for Chinese Women and 17.5 for Indian women. Clearly, an integrated approach is necessary to deal with avoidable mortality and morbidity and preventive steps in public health are needed to bridge the gap, especially in regard to the Indian women. Taking all the factors into consideration, longevity estimates around 20-25 could be around 70 years, perhaps, without any distinction between men and women.

This leads us to the second question of the remaining disease burden in communicable and non-communicable diseases, the effectiveness of interventions, such as, immunisation and maternal care and the extent of vulnerability among some groups. These issues have been dealt with in detail earlier. Clearly an optimistic forecast would envisage success in polio, yaws, leprosy, kalazar, filaria and blindness. As regards TB it is possible to arrest further growth in absolute numbers by 2010 and thereafter to bring it to less than a million within internationally accepted limits by 2025. In regard to Malaria, the incidence can be reduced by a third or even upto half within a decade. In that case, one can expect near freedom from Malaria from most of the countries by 2025. As regards AIDS, it looks unlikely that infection can be leveled off by 2007. The prognosis in regard to the future shape of HIV / AIDS is uncertain. However, it can be a feasible aim to reduce maternal mortality from the present 400 to 100 per lakh population by 2010 and achieve world standards by 2025. As regards child health and nutrition, it is possible to reach IMR/30 per thousand live births by 2010 in most parts of the country though in some areas, it may take a few years more. What is important is the chance of two thirds decline in moderate malnutrition and abolition of serious malnutrition completely by 2015. In the case of Cancer, it is feasible to set up an integrated system for proper screening, early detection, self care and timely investigation and referral. In the matter of disease burden as a whole, it is feasible to attempt to reach standards comparable to China from 2010 onwards.

Taking the third aspect viz. fairness in financing of health care and reformed structure of health services, an optimistic forecast would be based on the fact that the full potential of the vast public health infrastructure would be fully realised by 2010. Its extension to urban areas would be moderated to the extent substantial private provision of health care is available in urban areas; concentrating on its sensible and effective regulation. A reasonably wide net work of private voluntary health insurance cover would be available for the bulk of the employed population and there would be models of replicable community based health insurance available for the unorganised sector. As regards the private sector in medicine, it should be possible in the course of this decade to settle the public role of private medical practice – independent or institutional. For this purpose, more experiments are to be done for promoting public private partnerships, focussing on the issue of how to erect on the basis of shared public health outcomes as the key basis for the partnership. A sensible mixture of external regulation and professional self-regulation can be devised in the consultation with the profession to ensure competence, quality and accountability. The future of plural systems in medical practice seems to be in some difficulty but the issue will be determined by greater understanding and evaluation of comparative levels of competence and reliability in different systems – a task in which, the separate department for Indian systems of medicine and homeopathy will play a leading role in inducting quality into the indigenous medical practices.

The next issue relates to the desirable level of public expenditure towards health services. China devotes 4.5% of its GDP as against India devoting 5.1%. But this hides the fact that in China, public expenditure constitutes 38% whereas in India, it is only 18% of total health expenditure. An optimistic forecast would be that the level of public expenditure will be raised progressively such that about 30% of total health expenditure would be met out of public funds by progressively increasing the health budget in the states and the central and charging user fees in appropriate cases. The figure mentioned would perhaps correspond to the proportion of the population which may still need assistance in social development.

Finally it is proper to remember that health is at bottom an issue in justice. It is in this context that we should ask the question as to how far and in what ways has politics been engaged in health care? The record is disappointing. Most health sector issues figuring in political debate are those that affect interest groups and seldom central to choices in health care policy. For instance conditions of service and reward systems for Govt. doctors have drawn much attention often based on inter service comparisons of no wider interest. Inter-system problems of our plural medical care have drawn more attention from courts than from politics. Hospital management and strikes, poor working of the MCI and corruption in recognition of colleges, dramatic cases of spurious drug supply etc have been debated but there has been no sustained attention on such issues as why malaria recrudescence is so common in some parts of India or why complaints about absence of informed consent or frequent in testing on women, or on the variations in prices and availability of essential drugs or for combating epidemic attacks in deprived areas seldom draw attention. The far reaching recommendations made by the Hathi Committee report and or the Lentin Commission report have been implemented patchily. The role to be assigned to private sector in medicine, the need for a good referral system or the irrationality in drug prescriptions and use have seldom been the point of political debate. Indeed the lack lustre progress of MNP over the Plans shows political disinterest and the only way for politics to become more salient to the health of the poor and the reduction of health inequalities is for a much greater transfer of public resources for provision and financing - as has happened in the West, not only in UK or Canada but in the US itself with a sizable outlay on Medicaid and Medicare.

HEALTH INDICATORS

1. Life expectancy at Birth Increased from
31.70 in 1947 to 64.00 in 2001
2. Crude Birth Rate Decreased from (per 1000)
33.90 in 1981 to 26.40 in 1998
3. Total Fertility Rate Decreased from (per 1000)
4.50 in 1981 to 3.30 in 1998
4. Crude Death Rate Decreased from (per 1000)
146 in 1951 to 72 in 1998
5. Infant Mortality Rate Decreased from (per 1000 lbirths)
146 in 1951 to 72 in 1998
6. Under five mortality Decreased from (per 1000)
236 in 1951 to 62 in 1997
7. Maternal Mortality Rate%
20.20% in 1946 to 4.00% in 199

HEALTH RESOURCES

1. Outlay for Health Sector Increased from Rs 1960 in the First Plan (1951-56) to Rs 434100 in the Eighth Plan (1992-97)
2. Per Capita Expenditure on Health and family welfare and water supply and sanitation increased from 55.0 in 1985-86 to 83.03 in 1989-90
3. No of Hospitals increased from 2694 in 1951 to 15097 in 1995
No. of beds increased from 117178 in 1951 to 867485 in 1995
4. No of Medical Colleges Increased 30 in 1950-51 to 165 in 1995-96
5. doctor per lakh population increased from 17 in 1951 to 45 .
6. Percentage of children under five suffering from poor in nutritional status in 1998-99

underweight	Severe	- 21
wasting	Moderate & Severe	- 18
stunting	Moderate & Severe	- 52

SOCIO ECONOMIC INDICATORS

GNP (RS) in Crores	Increased from	8938.00	in	1950-51	to
		9928.01	in	1995-96	
		701771.00	in	1999-2000	
Per capita Income (NNP) at Current Prices	Increased from	238.8	in	1950-51	to
		9578.4	in	1995-96	
Percentage of Population Below Poverty line	Decreased from	54.88	in	1973-74	to
		35.97	in	1993-94	
Percentage of Population Below Poverty line (Rural)	Decreased from	49.01	in	1973-74	to
		32.36	in	1993-94	
Literacy rate (Percentage)	Increased from	18.33	in	1951	to
		65.38	in	2001	
Literacy Rate (%) Female	Increased from	8.16	in	1951	to
		54.16	in	2001	
Estimates of Poverty (All India)	Decreased from	51.3%	in	1977-78	to
		38.9%	I		

DEMOGRAPHIC INDICATORS

Total Population (in millions)	Increased from	361.10	In	1951	to
		1027.02	in	2001	
Total Rural Population (in millions)	Increased from	298.70	in	1951	to
		627.1	in	1991	
Total Urban Population (in millions)	Increased from	62.4	in	1951	to
		217.2	in	1991	
Density of Population	Increased from	117	in	1951	to
		324	in	2001	
Sex Ratio (No. females Per 1000 males)	Decreased from	946	in	1951	to
		927	in	1991	to
		933	in	2001	
Sex Ratio of Child Population 0-6 age group	Decreased from	945	in	1991	
		927	in	2001	
Population in age group 0-6 as a percentage of Total Population	Decreased from	17.84	in	1991	to
		15.42	in	2001	

REFERENCES

- Visaria L Innovations in Tamil Nadu
Seminar 489 May 2000
- Ramachandran V A perspective on reforms
Seminar 489 May 2000
- Keohave R & Nye J Globalization
Foreign Policy Spring 2000
- Menon Meera Corporatization of Health
The Hindu Folio on Health 2000
- Mishra V.S. Health Implications of Ageing
MFC Bulletin 266/267
- Gulati L & Irudaya The added years
Rajan EPW Oct 30, 1999
- Bose Ashish Demographic Transition
Seminar 488 April 2000
- Cassell Eric "The Sorcerer's Broom"
Hastings Center Report Nov Dec 1993
- Gwatkin D & Others The burden of disease and Global poor
HDN World Bank 2000
- Bhat R Private Health care in India
IHPP 1995
- Naylor D A Fine Balance
HDNetwork World Bank 1999
- World Bank (A)ndia Policy & Financing Strategies for PHC Services
WorldBank May 1995
- World Bank (B)India New Directions in health sector development
Feb 1997
- Gwatkin DR [A] Bulletin of WHO
Vol 78/1 2000
- World Bank (C) Quality of Growth
Thomas V et al WBk 2000
- Krishanan TN Disinvesting in Health
ed Mohan Rao OUP 2000
- Jha P et al Avoidable Mortality in India (Mimeo 2000)
- Sen Amartya Bulletin of WHO
Vol 78/2 2000
- Bhat Mari Fertility trends NFHS 1
EPW 14 april 2000
- Gopalan EPW 7 April 2001