

Executive summary

Introduction

The promotion of health is of fundamental value in and of itself. It is a vital public good and a basic human right. With the Human Development Index ranking countries on achievements that affect quality of life and access to basic necessities governments have been forced to redefine development. Universal access to health including water, sanitation, nutrition, primary education, communication and employment are essential to a balanced development.

India's achievements and unfinished agendas

India has substantial achievements to its credit. Longevity has doubled from 32 years in 1947 to 66 years in 2004; Infant Mortality Rate (IMR) has fallen by over 70% points between 1947-1990; malaria has been contained at 20 lakh cases; smallpox and guineaworm have been completely eradicated and leprosy and polio are nearing elimination. In the last five years over five hundred thousand deaths have been averted due to the upscaling of Directly Observed Treatment Short-course (DOTS). Indian doctors are comparable to the best in the world. They are technically proficient, and capable of performing sophisticated procedures and that too at a fraction of the cost available in the West.

These achievements should not mask India's failures. Levels of malnutrition and rates of infant and maternal deaths stagnated during the 1990s. Currently, life expectancy at birth, infant and under-five mortality levels are worse than those of Bangladesh and Sri Lanka. Pakistan eradicated smallpox, guineaworm disease and polio much before India could. Although we account for 16.5% of the global population, we contribute to a fifth of the world's share of diseases: a third of the diarrhoeal diseases, TB, respiratory and other infections and parasitic infestations, and perinatal conditions; a quarter of maternal conditions, a fifth of nutritional deficiencies, diabetes, CVDs, and the second largest number of HIV/AIDS cases after South Africa.

Microeconomic impact of illness

The decline in public investment in health and the absence of any form of social insurance have heightened insecurities. The unpredictability of illness requiring substantial amounts of money at short notice are impoverishing an estimated 3.3% of India's population every year. The poorest 10% of the population rely on sales of their assets or on borrowings, entailing inter-generational consequences on the family's ability to access basic goods and affecting their long-term economic prospects.

What ails India? Disease burden and prioritizing investments

Limited resources mean that not every health condition can be attended to. The public health system is overwhelmed by the coexistence of communicable and infectious diseases alongside an emerging epidemic of non-communicable diseases. Communicable diseases are expected to decline but the emergence of new infections and non-communicable diseases will have to be dealt with, as they are likely to increase quite sharply in the event of the current status quo of inaction towards their prevention. Based on reviews of available data, it is estimated that by 2015 the number

of HIV/AIDS cases would be three times more than the current level, entailing possibly a corresponding increase in the existing prevalence level of TB of about 85 lakh cases. Perinatal and childhood conditions are not expected to decline significantly. We may not be able to achieve the targets set for 2010 in the various policy documents or even by 2015 as laid down in the Millennium Development Goals.

India's disease burden will increase significantly due to non-communicable diseases. Cardiovascular diseases and diabetes will more than double – cancers will rise by 25%. Mental health affects about 6.5% of the Indian population and is expected to increase due to stress on account of frequent disruptions in incomes, unemployment, lack of social support systems, etc.

Prevention – the key for reduced disease burden

Prevention of diseases, particularly non-communicable diseases that are expensive to treat, is the most cost-effective strategy for a country facing scarce resources. Preventive strategies will vary depending on causal factors. For example, integrated approaches for vector control through decentralized management systems are known to significantly reduce incidence of vector-borne diseases. Access to clean water and sanitation services and better hygienic practices like hand-washing will reduce diarrhoea. Likewise, increasing advocacy and awareness efforts against tobacco use will reduce CVD, lung and oral cancers drastically. Promotion of exercise and yoga is increasingly acknowledged to reduce stress and obesity, diabetes and other lifestyle diseases.

India's health system: The delivery of health care services

The principal challenge for India is the building of a sustainable health system. Selective, fragmented strategies and lack of resources have made the health system unaccountable, disconnected to public health goals, inadequately equipped to address people's growing expectations and inability to provide financial risk protection to the poor. Access to medical care continues to be problematic due to locational reasons, bad roads, unreliable functioning of health facilities, transport costs and indirect expenses due to wage loss, etc. making it easier to seek treatment from local quacks. This explains the gross underutilization of the existing health infrastructure at the primary level contributing to avoidable waste.

The reasons for this failure can be attributed to three broad factors: poor governance and the dysfunctional role of the state; lack of a strategic vision; and weak management.

The structural mismatch in the institutions at the Centre and State levels, with many departments and agencies duplicating work or working at cross-purposes make governance in health ineffective. Contributory factors for a dysfunctional health system are unrealistic and non-evidence-based goal-setting, lack of strategic planning and inadequate funding.

Weak management

Key factors that adversely affect the functioning of the public health system are poor management of resources and centralized decision-making, low budgets, irregular supplies, large-scale absenteeism, corruption, absence of performance-based monitoring and conflicting job roles making accountability problematic. There is a real need for HRD policies related to recruitment, promotion, transfer and training. The demoralization and demotivation that exists among the workforce must be countered by enhancing professional competencies and career opportunities. The neglect in developing the required skill mix and in particular public health expertise is hindering us from achieving national health goals.

Vertical versus horizontal programmes: Lack of focus

Centrally designed vertical programme have impeded the country's ability to build a credible health system responsive to the every day health needs of the people. The NHP, 1983 made a strong commitment to establish comprehensive primary health care – to be based on two pillars – 1. the active involvement of the community and 2. inter-sectoral linkages to nutrition, water and sanitation, etc. Yet, resource constraints led to the prioritization of interventions.

Though interventions have been based on cost-effectiveness, disproportionate impact on poor, and technical feasibility, yet, evidence from community-based experiments and surveys show that people's health needs and expectations from their health system are different from the ones prioritized. Centrally driven vertical programmes are known to fail to integrate with the provisioning of general health services, weaken the health system as a whole and, over time, get disconnected from local health problems, priorities and the community itself. Therefore, India needs to seriously introspect on the effectiveness of vertically driven strategies, particularly when such strategies are implemented in a campaign mode in a health system that is unable to synchronize its several responsibilities.

Devolution of authority to local bodies

Given the vastness and diversity, India will find it difficult to reverse the rising trend of communicable diseases such as malaria, TB and HIV/AIDS without the active participation of communities. While the 73rd and 74th Amendments give us an opportunity to foster a democratic system of governance in health, enforcement has been tardy. Besides functional delegation, fiscal devolution encompassing expenditure decision-making with revenue responsibilities is equally important. An approach that merely 'orients' locally elected representatives to be 'involved' in health activities is of marginal value.

The role of the private sector in health care delivery

Private health markets are profoundly affected by several factors: nature of health financing and payment systems, types of technology, cost of initial education and training, public expectations and perceptions, regulatory frameworks, societal values, etc. International experience shows that the private sector tends to focus on profit maximization and is hardly concerned with public health goals, making state intervention essential.

The convergence of decreasing public investment, emergence of non-communicable diseases, an effective demand and the liberalization-privatization process since the 1990s has enabled the entry of the corporate sector in health. Seeing the scope for profit, several non-resident Indians (NRIs) and industrial/pharma companies are setting up super-specialty hospitals, capable of providing world-class care at a fraction of the cost available in the West. There is thus an enormous potential for India to become a hub for medical tourism. However, the trade-offs in terms of welfare implications cannot however be ignored. It will raise the overall cost of health care in the country and generate pressures for increased budgetary allocations for government hospitals to stay competitive.

Current status of the private sector in India

The private sector consists largely of sole practitioners or small nursing homes having 1–20 beds, serving an urban and semi-urban clientele and focused on curative care. A survey of the qualified provider markets in eight middle-ranging districts: Khammam (AP), Nadia (WB), Jalna (MH), Kozhikode (Kerala), Ujjain (MP), Udaipur (RJ), Vaishali (BH) and Varanasi (UP) showed:

1. A highly skewed distribution of resources – 88% of towns have a facility compared to 24% in rural areas, with 90% of the facilities manned by sole practitioners.
2. The private sector has 75% of specialists and 85% of technology in their facilities.
3. The private sector account for 49% beds and an occupancy ratio of 44% whereas the occupancy rate is 62% in the public sector.
4. Acute shortage of human resources with an average of 0.4 doctors per 1000 and 0.32 nurses per 1000 population as against the national average of 0.59 for doctors and 0.79 for nurses and a global norm of 2.25 per 1000 population. Nearly two-thirds of these doctors are concentrated in urban areas. Of the 80 blocks surveyed, 35 had a negligible to nil numbers of nurses or doctors either in the public or private sector.
5. 75% of service delivery for dental health, mental health, orthopaedics, vascular and cancer diseases and about 40% of communicable diseases and deliveries are provided by the private sector.

An overview of the private sector

1. Serious supply gaps and distributional inequities;
2. Need for uniform standards and treatment protocols;
3. Need for cost controls and quality assurance mechanisms;
4. Regulations to protect consumer interests and enforcement systems;
5. Supporting the NGO/charitable or the third sector which has the capability to provide reasonable quality care at affordable rates and the potential to serve the poor in under-served areas if appropriately incentivized and supported.

The three drivers of health care costs

Health system costs are driven by the nature of the human infrastructure, drug regime and technology used.

Human resources for health

Several attempts to develop community based health workers have been unsuccessful. Evaluations of such attempts show that community-based health workers/volunteers require periodical training, close supervision and an integral linkage with the organized health system.

The first interface of the formal health system with the community are the 2 multipurpose workers (MPWs): The 18-month trained ANM and the 6-month trained male worker manning one sub-centre for every 5000 population. With virtually no scope for in-service training there is low motivation and high absenteeism. With over 60% of the male worker posts vacant, this cadre is the most neglected.

Two other critical categories of paramedics are the laboratory technicians and pharmacists. Here too, there is a dilution of standards. For the 9-month diploma course in laboratory technology a XIIth standard pass is considered eligible, even with Arts/Humanities background. Standards need to be upgraded to graduate level, i.e. BSc (Laboratory Technology). Besides the 49% vacancies in primary health centres (PHCs) and community health centres (CHCs) must be filled up on priority. Similarly, competency levels of pharmacists also need to be enhanced as the diploma-trained pharmacists are at best equivalent to pharmacy assistants in developed countries though they perform tasks normally reserved for registered pharmacists.

Nurses and midwives are an important segment of health care provisioning. India has an adverse nurse population or nurse doctor ratio as compared to other countries. Yet only an estimated 40% of registered nurses are active because of low recruitment, migration, attrition and drop-outs due to poor working conditions. The quality of nurse training is also poor affecting their ability to take advantage of job opportunities within and outside the country. Poor training is due to the non-adherence to teacher: student norms, inadequate infrastructure, insufficient budget, inadequate clinical facilities and insufficient hands-on training for students. In several places nursing schools function more as appendages

of the district hospitals. In 2004, 61.2% of nursing schools/colleges were found unsuitable for teaching. De-recognition by the INC had no impact as they continue to function with the permission of the State Nursing Council. This situation calls for immediate correction.

Doctors too are in short supply. India has a doctor-population ratio of 59.7 physicians for 100,000 population, worse than most developed countries which have 200 and more for every 100,000 population. There are extensive distributional inequities in the availability of doctors.

Specialist services – Inadequate and non-available

In Community Health Centres alone there is a shortfall of 62% of sanctioned posts of specialists and of the remaining, 38% are lying vacant, exhausting staff due to overwork and resulting in compromising on the quality of care. Viewed from the norm of one Medical College for a 50 lakh population, States like Uttar Pradesh, West Bengal, Chhattisgarh, Madhya Pradesh, Orissa, Assam and Rajasthan have a shortfall. Even where medical colleges and universities exist, there is an overall shortage of teachers affecting quality of instruction. There is an urgent need to address these issues in a comprehensive manner, sanction more PG seats in scarce specialties and multi-skill existing doctors through intensive in-service training programmes.

Access to essential drugs and medicines

India's pharmaceutical market, both bulk drugs and formulations, is valued at Rs 35,000 crore in 2003-04 as against Rs 10 crore in 1950. The annual compound growth rate of production during the past three decades has been quite high. The production of bulk drugs registered a 12.38% growth; formulations 11.05% and total production 11.17% (in current prices). Ten of the top 25 drugs sold in India are non-essential, irrational or hazardous. The market for drugs is highly concentrated with implications on price setting.

Price of drugs

Only 76 drugs accounting for around one-fourth of the drug market are under price control. An examination of the price trends of 152 drugs (consisting of 360 formulations) reveals that antibiotics, anti-tuberculosis and anti-malarial drugs, and drugs for cardiac disorders, etc. registered price increases from 1%-15% per annum during 1976-2000.

Indian households spend 50% of their total health expenditures on drugs and medicines. Reducing this burden and ensuring access can be achieved by: (i) bringing all drugs under price control to ensure lower prices for the households; (ii) streamlining and putting in place a system of centralized pooled procurement of drugs so that the public health system can save almost 30% to 40% on costs; (iii) weeding out irrational drugs and irrational combination drugs; and (iv) encouraging ISM drugs for treating diseases for which efficacious and

low-cost drugs are available. Price control, as is the practice in several countries such as Canada, is justified on the basis of the drug prices outstripping WPI. Second, this will address about 90% of the health needs of the community and reduce household spending on these services. Price control should not be limited to essential drugs as the industry can then simply switch its production to the non-controlled categories, depriving people of access to essential drugs.

Weak regulatory environment

Spurious and substandard drugs have been a longstanding concern. Poor enforcement of regulations is due to inadequate and weak drug control infrastructure at the State and Central levels. Only 17 of the 31 States and Union Territories have drug-testing facilities, and in all states there is an acute shortage of manpower for enforcement.

Product patent regime

Integration with the global systems will help us access the latest technology. But then it also carries the potential risks of increased prices hindering access to essential drugs. One way of countering this is to step up publicly supported R&D, encouraging public agencies, universities and private companies to develop new drugs that are essential to the poor. For instance, development of vaccines for preventing TB, malaria, HIV/AIDS, etc. needs to be supported by offering both fiscal and non-fiscal stimuli. Such incentives should be made conditional to capping prices of new drugs or maintaining a minimum quantity of production of essential drugs to assure regular access.

To safeguard consumer interests patent amendments still need to clarify issues relating to: (i) the scope of patentability; (ii) cap on royalty payments; (iii) plugging all ambiguities and technical loopholes in the amendment to avoid unnecessary and expensive litigation in future; and (iv) vesting discretionary powers in the patent office in terms of timelines of rules, not to affect credibility and objectivity.

Medical devices technology: A case for appropriate policies

In India, concerns regarding medical technology have been by and large limited to pharmaceutical drugs, regulation of diagnostics for sex determination of the foetus and corruption in public procurement. Developed countries on the other hand, have encouraged research to help them institute policies for monitoring and predicting potential impacts of medical innovations on health expenditures. Technological change accounted for more than 20% increase in health spending in the United States of America during 1980-2000, mainly due to increased volume of utilization of medical devices and higher prices.

Three factors are responsible for increased utilization of medical technology, the first and third are particularly significant: (i) use of advanced medical applications for individuals, not

using before- 'treatment expansion'; (ii) 'treatment substitution' – use of medical advances to replace existing procedures/services; and (iii) use of medical advances as 'add-on' services to increase the intensity of services.

A survey of the utilization of high end technology showed that:

- Procedural delays hampered acquisition of technology in the public sector.
- Due to higher down time and lower utilization, the average cost per unit was much higher in public facilities.
- Non Availability of good quality spare parts and severe shortage of technical experts for repairing medical equipment;
- Absence of regulations for countering problems with the medical device supply and maintenance industry in the private sector, standards and norms for quality, sale and siting of high-end technology, based on norms related to efficiency in resource use.

Public health financing in India

Public sector spending accounts for less than a quarter of the total health spending in India. However, it plays a major role in terms of planning, regulating and shaping the health care delivery system. Such public provisioning is essential to achieve equity and address the large positive externalities associated with health.

Public spending (i.e. expenditures incurred by health departments of Central and State Governments) on health gradually accelerated from 0.22% in 1950-51 to 1.05% during the mid-1980s, and stagnated at around 0.9% of the GDP during the later years. In terms of per capita expenditure, it increased significantly from less than Re 1 in 1950-51 to about Rs 215 in 2003-04. Public spending under the National Health Accounts framework was about 1.3% of GDP out of an overall health spending of 4.8% of GDP.

Public health spending by State Governments

Health being a state subject, financing is primarily by the state governments. Resource allocation to this sector is influenced by the prevailing fiscal situation. The budgetary allocations to the health sector during 2003-04 declined by more than 2 percentage points as compared to 1985-96. Despite a reduction in the health budget from 7.02% in 1985-86 to 4.97% in 2003-04, the fiscal deficit as a percentage of the gross state domestic product (GSDP) recorded an increase, implying that allocation to health does not necessarily accentuate fiscal deficit.

User charges as an option

All states levy user charges for services in secondary and tertiary-level hospitals in the public sector, which accounts for 2% to 3% of the total health budget. A study of the user fee policy in Andhra Pradesh (AP) highlighted three important aspects:

1. a decline in budgetary support to the Andhra Pradesh Vaidya Vidhana Parishad (APVVP – looks after all district, subdistrict and Community Health Facilities), from 16.7% in 2001-02 to 10% in 2003-04. This shows that user charges substituted rather than supplemented existing budgets.
2. aggregate utilization of funds from user charges was low (except in 2003-04), ranging from 12.8% to 53.5% in Telangana (the more backward part of the state), compared to 82.8% to 93.5% in the Andhra region.
3. the number of poor accessing public health facilities fell, particularly for inpatient services. The experience of Maharashtra is reported to be similar.

Public health spending by the Centre – 1990-2001

During the decade 1990-2001 Central spending had five notable characteristics:

1. gradual reduction in the proportion of funds released to states under the grant in aid mechanism from 60% to less than 40% at a time when the states were themselves under fiscal stress.
2. sharp reduction in capital investment in public hospitals from 25% of the budget in 1991 to less than 6% in 2001 at a time of technological innovation and increased public expectations.
3. increased subsidy for own employees under the CGHS consuming 18% of the budget of the Department of Health on less than 0.5% of the country's population.
4. low priority to preventive and promotive health with less than 0.5% of total public health spending.
5. gross underfunding of National Health Programmes (NHP) which require a minimum of Rs 11,210 crore against which the Centre and States spent an estimated Rs 5563 crores (2001-2002) resulting in the suboptimal functioning of the delivery system and huge out of pocket expenditures on services 'guaranteed' under the NHP.

Underutilization of funds

Despite mounting evidence to justify a quantum jump in public budgets for health, the Central Ministry routinely surrenders budgets allocated to it. Reasons are both systemic and institutional, such as instability in budget releases, intense fragmentation, lack of flexibility, inadequate attention to maintenance of assets created and operational expenses; lack of uniformity in health budgeting between Center and states and among states making any tracking of expenditures impossible. Lumping of releases affect the availability of drugs and other inputs on a regular basis and also affect synchronization of the mix of inputs. Current systems of budgeting are useful for audit and accounting purposes as the key objective is expenditure control. Since financial expenditure is the key indicator for achievement, the cumulative energy of the health departments go towards obtaining 'utilization certificates' and releasing funds to field agencies.

The financial structures are archaic and need to be restructured from the perspective of achieving health system goals. The current system of budgeting makes it impossible to identify where expenditure controls need to be exercised, types of skill-mix needed, the departments that should be closed down and those that need to be expanded in keeping with shifting demand. Since hospital budget allocations are largely based on historical precedence and bed strength, there are situations where one department has funds but few patients, while another has restricted funding and two patients on one bed.

The Way Forward

Improving health in India will require building up the health system in the next ten to twenty years. Five core concerns emerge when facing the challenge of improving health in India:

- (i) promoting equity by reducing household expenditure on total health spending and experimenting with alternate models of health financing;
- (ii) restructuring the existing primary health care system to make it more accountable;
- (iii) reducing disease burden and the level of risk;
- (iv) establishing institutional frameworks for improved quality of governance of health;
- (v) investing in technology and human resources for a more professional and skilled workforce and better monitoring.

These concerns need to be addressed by stimulating the process of reform. Reforms should aim to overhaul the existing system that is dominated by low-quality health care, is costly and unaffordable for the majority of the people, and where the public sector is under-funded, poorly equipped and constrained by bureaucratic procedures. If India is to stay committed to achieving the National Health and Population Policies in 2010 and the Millennium Development Goals in 2015, this Commission recommends that public spending be increased from the current level of 1.3% to 3% of GDP in the next few years. The additional resources can form the building blocks for implementing the Commission's recommendations for a strong and viable health care system in India.

Building on values

The Commission believes that the health system in India needs to be based on a set of core values such as compassion, concern for the strict adherence to ethical norms and an unflinching commitment to patients' well being. We recommend the following principles to guide public policy:

- Accountability to the health and well-being of the community it serves;
- Responsibility to the patient who receives treatment and care in dignity, fairness, without discrimination and in consonance with the basic tenets of a patients, charter;
- Accessibility at all times and at all facilities – no one should be denied care on grounds of time, distance or place of residence;
- Adaptability to ensure that local practices, traditions and preferences are given due consideration;

- Participatory – providing leadership in bringing about behavioural changes for adoption of healthy lifestyles and practices that promote well-being and good health values;
- Recognizing the special value of mothers, children and senior citizens in society.

Two initiatives need to be taken to implement the principles enunciated above:

1. Gradually shift the role of the State from being a provider to a purchaser of care, and
2. Ensure that the three tiers of the primary health system are embedded within the community by establishing appropriate institutional structures for enhancing accountability in the system.

1. Reducing household expenditures of the poor: Options for financing comprehensive health care

To ensure access to a standardized schedule of benefits consisting of essential health interventions, we recommend a shift in the provision of services from the current concept of individual vertical programmes to a comprehensive package of services consisting of three components:

1. a core package consisting of public goods and costing Rs 150 per capita, to be made universally accessible at public cost;
2. a basic package consisting, in addition to the above, surgery and medical treatment costing Rs 310 per capita; and
3. a secondary care package costing Rs 700 per capita and consisting of treatment for vascular diseases, cancer and mental illness, and referrals.

Innovative financing models must be tried to ensure that such packages are universally accessible

Government would require a five-fold increase in the budget or Rs 1 lakh crore @ Rs 1160 per capita per year if it is to be the sole provider of the comprehensive package of services consisting of preventive, promotive and curative services. Resource limitations necessitate two options:

- (i) targeting only the poor for publicly funded care; and/or
- (ii) considering alternate models of health financing where a part of the cost is shared by households, under different instruments such as capitation, vouchers and insurance. Each of these financing systems entail risks and benefits which need to be understood in their entirety. It is therefore recommended that these alternative models be pilot tested to assess their suitability in Indian conditions.

Social health insurance for secondary care is important as impoverishment takes place at this level. Insurance empowers individuals to access comparable quality of care irrespective of economic status. It functions on the principle of cross-subsidization where the rich, healthy and the young subsidize the sick, old and the poor. For assuring equitable access to secondary care and reducing the financial burden on households, considering India's diversity and disparities, a careful blending of social health insurance, community-based health insurance and limited and well regulated private health insurance is recommended as a way forward.

Attempts to protect the poor from income shocks under the Universal Health Insurance Scheme failed for two reasons: one, the risk pool is confined to below poverty line families already at high risk, making it a losing proposition; and two, lack of any institutional mechanisms to implement the scheme. What is needed to deepen health insurance markets is a catalyst that can bring in the required volume and velocity. One such option available in the Indian scenario is the merger of the medical component of the ESIS and the CGHS, to be re-constituted as the Social Health Insurance Corporation of India (SHIC) – the first stand-alone health insurance company in the country. This was the vision articulated by the then Prime Minister, Nehru, while launching the CGHS for Government employees to be implemented on a pilot basis in 1954. We are 50 years late.

SHIC is envisaged as a re-insurer like NABARD, providing funding to health insurance companies (like the SBI), cooperative societies/HMOs (like Grameen Banks), etc. which could all be entities competing for this pool of funds. Such plurality and competition will bring in efficiencies and reduce costs. But for this Corporation to be successful, the culture of management will have to be modernized and professionalized.

In view of our negligible experience in handling health insurance markets and given the social risks involved, it is essential that institutional assistance be sought from developed markets while designing future strategy. Further, in introducing new financial instruments like insurance, it would be imperative to first undertake action and sequence reform for ensuring the following prerequisites: formulating legislation for administering health insurance and establishing an Independent Health Regulator; undertaking disease classification, and enabling risk assessment for fixing fair premium; developing standards and treatment protocols for preparing the schedule of benefits along with unit cost estimations; and establishing formal mechanisms for health service provisioning, arbitration and standard-setting.

II. Raising accountability of the existing system of primary health care

The existing system of primary health care has collapsed in several parts of the country, for reasons other than underfunding. This needs correction by the active participation of civil society and by incentivizing the system.

Government must accept responsibility to provide basic primary health care to its citizens. To do so within the framework of the guiding principles it is necessary to involve the community and locally elected bodies. Institutional mechanisms for such oversight functions need to be established at different levels of the health delivery system such as for example, Village Health Committees and empowered management committees at the PHC and CHC levels. Local bodies should be mandated to discharge a set of functions. At the district level a professionally organized District Health Authority consisting also of public representatives from the facility level management committees should be constituted. It is believed that a broader and wider participation in health affairs, will engender a greater appreciation of the costs involved and make

them shoulder more responsibilities. A major recommendation in this regard is to give the community the choice between having a subcentre manned by two workers or having a village based health unit consisting of the local RMP (Unqualified Registered Medical Practitioner), the traditional birth attendant and a VLW (Village Level Worker). The Health Unit would be trained to carry out a specific protocol of functions and work under the technical supervision of the PHC but be accountable to the community. The advantage of this system is that it will ensure access to health care for minor ailments addressing over 80% of health needs in the village itself and be far more cost-effective than the subcentres.

III. Reducing the disease burden

Assuring nutritional security requires fair pricing policies that will allow access to a minimal balanced diet across a vector of nutrients, such as proteins, vitamins, fats, carbohydrates and other vital micronutrients. Analysis of consumption patterns carried out across quintile groups and food groups, show that the poverty line based on a 'balanced diet' measure is higher than what is officially notified.

An analysis of 321 districts showed that 163 had very adverse indicators regarding malaria, leprosy and RCH as well as problems of access to water, sanitation, low literacy levels and high levels of poverty, accounting for nearly half the disease burden and poverty in the country. These districts are predominantly in states such as Bihar, UP, etc. that are also under severe fiscal stress. It is recommended that the Central government provide recurring assistance to these States and appoint key frontline workers and technical personnel for a fixed time period and thereby help contain and reverse further progression of disease and achieve health goals. Such focused and outcome/performance-based assistance will significantly impact on reducing disease burden on the overall and alleviate poverty on account of ill health.

Shifting from a curative, techno-managerial approach to a biomedical public health approach and stepping up prevention of disease and health promotion for behavioural change is an imperative to reduce disease burden. A quantum jump in resource allocation is required to sustain this activity. Formulation of a National Information Policy is recommended.

IV. Regulations and institutional infrastructure for coping with health markets

To facilitate the proposed paradigm shift in reorganizing and financing the health system, we need to develop institutional capacity with a critical mass of multivariate skills for enforcement of regulations and designing flexible and innovative approaches, keep vigil and synthesize information from various sources for assessing trends. The Commission believes that the proposed institutional infrastructure is a bare minimum. The bodies should be autonomous and self-financing. We recommend their establishment on priority. Experts with demonstrated experience in the field should be associated as issues are complex and require in-depth knowledge.

FEDERAL DRUGS AUTHORITY – for regulation and monitoring of drug quality, efficacy and safety, monitoring, evaluation and dissemination of findings of clinical and drug trials, pricing and rational use of drugs as already recommended by the Mashelkar Committee in 2002.

INDIAN MEDICAL DEVICES REGULATORY AUTHORITY – for laying standards and certification of quality, appropriateness and safety, norms to minimize the abuse of technology and optimize resource use, on the lines suggested by the High-level Committee constituted by ICMR in 2000 and the Sikka Committee of the INSA. Given the nature of the work involved it should be independent of the Ministry of Health since it is only the end user of technology .

EXPANDING PUBLIC PROCUREMENT SYSTEMS – of drugs, devices and vaccines for immense costs saving to the public exchequer. Autonomous bodies like the Tamil Nadu Medical Services Corporation (TNMSC) should be established at the Central Government and State levels.

NATIONAL INSTITUTE FOR HEALTH INFORMATION AND DISEASE SURVEILLANCE – for formulating a systematic policy approach to research, evidence evaluation, conduct disease burden estimations, maintain the National Health Accounts, undertake cost-effectiveness studies of interventions, independent evaluations of programme implementation, etc.

NATIONAL COMMISSION FOR QUALITY ASSURANCE (NCQA) – For assuring uniformity and standardization, the NCQA should have a legal mandate to license various accreditation bodies, design and approve the course and remuneration for assessors, establish minimum physical standards for accreditation and settle disputes.

R&D – NATIONAL INSTITUTE FOR HEALTH RESEARCH – The ICMR should be upgraded as a full-fledged department to provide leadership in stimulating research in drugs and vaccines, invest funds for upgrading public sector research institutions and build multidisciplinary research units that must include the blending of physical, medical and social sciences.

COMMISSION FOR EXCELLENCE IN MEDICAL AND HEALTH EDUCATION – The deterioration in the quality of training in professional colleges needs to be arrested immediately. This requires the strengthening of supervision and establishing quality standards in teaching and designing new courses to cope with the rapidly changing disease profile and fostering an environment for quality in health care and patient safety.

HEALTH FINANCING CORPORATION OF INDIA (HFCI) – The Public Health sector alone needs a capital investment of about Rs 50,000 crore to meet current needs. To enable health facilities to conform to standards over the next five to ten years HFCI, like the ILFS, could be a useful mechanism.

Institutional Mechanism for Enforcement of Regulations

The Commission recommends that action to strengthen the enforcement machinery be initiated in three principal areas:

1. Institution of Quality Assurance Cells in the Ministries of Health at the Central, State and district levels, and in all provider facilities for imparting and raising awareness about quality in a comprehensive manner;
2. Establishment of Epidemiological Health Units at the Ministry of Health at the Central, State, district and CHC levels to monitor public health laws, enforce regulations, and disseminate information to the public on public safety measures.
3. Provisioning of adequate number of drug inspectors at the local level for monitoring and enforcing compliance to regulations.

V. Professionalization of Service Delivery

1. HUMAN RESOURCES FOR HEALTH: Professionalization of human resources for health is an imperative in the knowledge-technology driven global environment. Low-cost solutions are inadequate for coping with the extraordinary situation prevailing in India. Some key recommendations are listed below for immediate action as the gestation period of developing human resources is long.

Nursing: It is recommended that in another 5-10 years, 225 new nursing colleges be established, 769 schools be upgraded and 266 colleges be strengthened. Action must be initiated to develop the 10,000 nursing faculty required for these institutions by providing fellowships and other incentives. As an estimated minimum of 3.5 lakh nurses just for primary and secondary care would be required by 2015, hospitals/medical colleges with over 500 beds should also be encouraged to establish training schools. Focus should however be on quality.

Medical Colleges: To ensure distributional equity across States, establish 60 new medical colleges in states with a shortage – UP, Bihar, MP, Orissa, West Bengal and Rajasthan. Adopt policies to develop the required pool of teaching faculty for these colleges. To increase the number of doctors in disciplines related to the National Health Programmes, about 466 postgraduate seats for Ophthalmology, Anaesthesia, Paediatrics, Psychiatry, Gynaecology and Obstetrics are required.

Public health: Establish an All India Cadre of Public Health to infuse fresh dynamism; earmark posts that must be manned by people who have basic public health qualification; and establish 6 schools of public health to serve as centres of excellence for training in public health in addition to strengthening PSM departments of medical colleges and existing public health institutions.

High Level Task Force for HRD Policy framework: The Commission recommends the constitution of a high-level task

force to examine various aspects of the deteriorating environment in medical colleges and nursing schools. Issues related to service conditions, payment systems, particularly for specialists, and incentives for stimulating better quality of training and research should be comprehensively addressed.

2. USE OF INFORMATION TECHNOLOGY (IT): There are four areas for expanding the use of information technology in medicare:

- (i) telemedicine – our study shows huge direct and indirect savings by the use of telemedicine.
- (ii) Computers for patient record-keeping, inventory control and monitoring, data collection and reporting in all facilities, pharmacy shops, etc.
- (iii) Edusat facilities for training – this satellite link up could yield substantial savings for training.
- (iv) GIS mapping of all facilities and restructuring the location of health facilities as per need and functional utility.

3. TELEHEALTH: To counter the distance factor (a major barrier in access to health care and health information) it is recommended that public policy encourage establishing call centres to provide health information, advice to treat minor ailments, etc. This will result in substantial cost-saving of both direct and indirect costs and also open employment avenues.

Financing the way forward – Issues and challenges

Fiscal pressures have resulted in the compression of State expenditures and a steady decline in social expenditures. The combined expenditure of States in the 1990s on medical, health, sanitation, water supply and family welfare declined from 8.4% of total expenditure to 7.2% in 2001-2002. As a proportion of GSDP, the decline was from 1.5% to 1.3% during this period. Achieving MDG goals and the Tenth Plan objectives in India, in this scenario, will be possible only if there is a significant increase in resources, targeting areas and population groups with low health indicators and focusing on the upgradation of the health system through a well sequenced process of reform.

Our estimates indicate that public investment for provisioning of public goods and primary and secondary services alone will require about Rs 74,000 crore or 2.2% of GDP at current prices. When added to the current level of 0.9%, the total public health spending (i.e. expenditures incurred by health departments at Central and State level) in proportion to GDP the amount required will be about 3%. Such spending will bring down the household expenditures by over 50% and entail substantial health gains.

The projected investment of Rs 74,000 crore consists of an estimated Rs 33,000 crore for capital investment required for building up the battered health infrastructure; and Rs 9000 crore towards premium subsidy for the poor under a mandatory Universal Social Health Insurance programme covering the entire country over the next 15 years; and an estimated

Rs 41,000 crore for recurring costs towards, salaries, drugs, training, research, etc.

The enhancement of health budgets will need to be accompanied with complementary investments in the areas related to employment, water, sanitation, nutrition, primary schooling and road connectivity. Barring employment, filling the gaps in the remaining sectors as per government norms is estimated to require Rs 3 lakh crore, with one lakh each for primary schooling and road connectivity. Assuming a 5% allocation for health and health related sectors out of the States' discretionary grants; a 25% of the 2.5 lakh crore that the States have the capacity to mobilize by way of taxes if they so wish to; and the Rs 5000 crore provided by the 12th Finance Commission, yet, about 9 States will be in acute financial deficit requiring additional assistance from the Centre to the tune of Rs 20,900 crore to come up to the country's minimum bar of providing access to basic needs.

Over the years, social investment will need to be increased from the current level of 2.7% of GDP to about 9.7% – an increase of 7% points of GDP. This can be achieved by various measures such as increasing, widening and deepening the scope for taxation; increasing and strategizing deployment of donor aid for better outcomes; accrue savings by bringing in systemic organizational and financial reform aimed at optimizing resource use, reducing the flab and enabling a more efficient use of resources in other sectors as well; levy user fees on discretionary services at all facilities but within a policy framework that protects the poor through exemptions and concurrent monitoring of utilization of services by these groups, and/or insurance systems. In not levying user fees but promoting insurance, public hospitals stand to lose, as restricted budgets and no access to alternative sources of funds such as user fees and insurance reimbursements, will place them at a distinct disadvantage over the private sector.

The way forward: steps to obtain social consent

Health affects all citizens. It is therefore essential that the system be designed to reflect the aspirations, needs and requirements of the people as well as those who provide them the services. Building a social consent through a consultative process will provide greater sustainability to the reforms proposed in this report. Accordingly, it is recommended that

- Task Forces consisting of knowledgeable and eminent people and representing all stakeholder groups be constituted to detail out the issues, the operational plans and financial implications.
- For issues requiring an intersectoral perspective, a Group of Ministers may be constituted to deliberate the various policy issues.

The key issue is having a vision, defining it in clear terms and formulating the steps ahead in the knowledge that the realization of this strategy will take more than a decade and that action taken now will help the future generations.