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# Public health management in India: Concerns and options

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Promoting and protecting health is essential to human welfare and sustained economic and social development. While there are many ways to promote and sustain health, not all of them are within the confines of the health sector. The circumstances in which people grow, live, work, and age” strongly influence how people live and die. Besides, status of a country with respect to education, housing, food and employment also has considerable impact on the health condition of its population. Divided in four parts, part II presents health service as a product. Part III starts with analysis of the health status in India and identifies issues in the health sector in India. Based on the status analysis and review of health systems, part IV presents options for policy interventions in Indian context. Finally, part V presents conclusions and recommendations. It is advocated that preventive care needs to be given due significance while simultaneously contextualizing the healthcare needs in the real life conditions, such as related to employment, incomes, food security, environmental hazards, work conditions and housing, water and sanitation. Promoting health-seeking behaviour and perceptions of people is important to planning for healthcare.

**Key words:** Market failure, government failure, health insurance, health financing.

## INTRODUCTION

Promoting and protecting health is essential to human welfare and sustained economic and social development. While there are many ways to promote and sustain health, not all of them are within the confines of the health sector (e.g. the circumstances in which people grow, live, work, and age strongly influence how people live and die). Besides, status of a country with respect to education, housing, food and employment also has considerable impact on the health condition of its population. While the income effect is considered to be direct in the form of capacity of the individual to buy nutrition, the effect of education is indirect in the form of

knowledge to empower people to buy nutrition and maintain hygiene. Owing to these multi-sectoral determinants of health, achieving better health requires strategies that range far beyond health policies and include wide range of people including engineers, teachers, policy makers, designers of roads and traffic planners, and health workers and specialists. Redressing inequalities in these will reduce inequalities in health. The most important of all is timely access to health services: a mix of promotion, prevention, treatment and rehabilitation. This cannot be achieved, except for a small minority of the population, without a well-functioning health system.

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Over the years, one of the areas of prime concern in the health management has been universalization of access to health services. World Health Assembly 2005 (resolution 58.33) mandated that (World Development Report, 2004) everyone should be able to access health services and not be subject to financial hardship in doing so. Later the Global Symposium on Health Systems research organised by the WHO also focussed on the theme "Science to accelerate Universal coverage". However, world is still a long way from universal coverage. The proportion of births attended by a skilled health worker can be as low as 10 per cent in some countries while its being close to 100 per cent for countries with the lowest rates of maternal mortality. Within countries, similar variations exist. It is expected that (World Health Organisation, 2006) closing this coverage gap between rich and poor in 49 low-income countries would save the lives of more than 700 000 women between now and 2015. World Development Report (2004) records that poor people spend a lot of money on health services and 75 percent of this is spent in private service providers in case of low income countries and 50 percent in case of middle income countries.

Public health budgets constitute a critical source for health equity in any society. If health indicators show gross inequities then it is evident that public investment in health is also grossly inadequate. The prime cause of underdevelopment of health and healthcare is inadequate allocations to health in government budgets. Data from across the world provides clear evidence that across the low and middle income countries over 5.6 billion people have to finance healthcare using the most inequitable method of out-of-pocket expenditure, often through borrowings and sale of assets, for over half their health expenditure (World Health Report, 2008). This is so because in these countries public health budgets do not commit adequate resources. Where countries do take responsibility for at least over half of national health spending, even when they are low or middle income countries, then health outcomes and access to healthcare are generally favourable and equitable. For instance in Sri Lanka, Malaysia, Thailand, Cuba, Chile, and Costa Rica governments account for between 46 and 88% of total health spending and this leads to reasonably good health outcomes and relatively good access to at least basic healthcare (World Health Statistics, 2007).

In the wake of high out-of-pocket expenditure leading to substantial financial hardships to the poor, the health insurance assumes significance. Rao (2004) presents an elaborate account of reasons for significance of health insurance in the Indian context. It is attributed to four major factors namely to provide effective demand to the private health infrastructure and promote foreign direct investment, to deepen the insurance markets through tax incentives and subsidies, and to protect the poor from

impoverishment due to high medical costs. However, developing an effective and efficient health insurance system is a major policy challenge. Health insurance along with other issues like public private partnership in health has to be a part of the health systems framework.

In India, however, health has traditionally received low priority in the central and state budgets. When low-income families face serious illness in one member, the alternatives are either not to access care and face the consequences of loss of earning capacity or to spend available assets or to borrow to meet the immediate need and then face the consequences of depleted resources in future. India declares itself to believe in socialistic equality and to be a "welfare" state, in which the inequity method of healthcare financing is incongruous. Aimed at analysing the health of the Indian health management system, discussions in this paper are divided in four parts. Part II presents health service as a product. The section draws on standard economic theory to examine key features of health as a service and reasons of government failure in health are examined to facilitate policy analysis and development of a framework in the later sections. Part III starts with analysis of the health status in India and identifies issues in the health sector in India. Based on the status analysis and review of health systems, part IV presents options for policy interventions in Indian context. Finally, part V presents conclusions and recommendations.

### **Features of health service as a product**

For understanding the health sector and intricacies of provision of health services, it is essential to analyse salient characteristics of health. A distinction is often made between public health and publically provided health care. Public interventions range from public health engineering such as water supply and sanitation to active preventive health care such as immunisation, inexpensive curative care and hospital based care. Likewise, difference between publically provided health care and all health care is also relevant. Healthcare in India is overwhelmingly private: 85 percent of all visits for health care are to private practitioners even for the poorest (Hammer et al., 2007). Therefore, while proposing health policy changes, it is essential to understand the consequences of changes in public provision of health on overall health service provision. Finally, a distinction is often made between the providers paid by salary versus payment for services rendered. Going by the prevalent practice in the developed countries, the dictum followed is money must follow the patient. The decision on the provider to be chosen rests with the patient and not the government. The Indian system of paying the doctors and other health care providers with salary is considered to be a major stumbling block in the way of any improvement in publically provided health care services

(Filmer and Pritchett, 2001; Filmer et al., 2000).

Understanding the relationship between health and incomes has also been an area of interest for economists. Strauss and Thomas (1998) analyse the relationship between investment in health and incomes. Treating health as a durable good, it is argued that health evolves over the life course: some health indicators are fixed during adulthood (such as height), most change over time and thus contain both a stock and flow component. These flows, or changes in health, may reflect investments in health or they may be the result of unexpected shocks; thus, some changes will be anticipated whereas others will not. In this context, health can be thought of as a durable good: investments now can reap benefits in the future. These investments in health-augmenting in-puts can, therefore, be thought of as an alternative form of savings or as a consumption-smoothing device.

Health services are divided into two categories namely traditional public health and curative services. The traditional public health is of two types: population based public health interventions like vector control and water and sanitation; and preventive and promotive public health interventions e.g. immunisation, IEC and nutrition improvement services. Curative services, on the other hand, are of two types namely ambulance services and hospital care. Health services are associated with the phenomenon of market failure arising due to public good character of health services. Two clear cases of market failure are the large externalities associated with communicable disease control and the universal failure of health insurance markets due to asymmetric information. These market failures justify the government intervention in the health sector.

Hammer et al. (2007) provide a useful account of implications of market failures in the health sector. They argue that market failures associated with relatively inexpensive routine healthcare are generally subtle like the phenomenon of supply induced demand wherein asymmetric information enables the doctors to give more care than is needed. Studies (Das and Hammer, 2005; Phadke, 1998) have documented instances of market failure in urban India. Dulleck and Kerschbamer (2006) specify conditions under which credence goods like medicine where the customer has to have some trust will lead to welfare losses due to market failures. Insurance is another example of market failure in the health sector. Universal public insurance often turns out to be too difficult to manage (Hammer et al., 2007) as while universality solves the adverse selection problem, the other two problems plague the insurance schemes.

Given the fact that the health sector is bound to face problems of market failure due to the public good nature of disease prevention in communicable disease and inherent failure of insurance markets, the standard recommendation in the economics literature is for the government to enter the market and fix it. Health sector

financing is of two types: demand side financing and supply side financing. The demand side financing is reliant on the split between financing and provision. Under demand side financing, while the financing function is left to the government or contribution from employees, intermediated by insurer or financial intermediaries, health care is purchased by the intermediaries from both the public and private providers. The demand side financing is therefore expected to lead to "money follows the patients". However, the supply side financing is the traditional way of funding through integrated way of financing and provisioning functions often by way of government budgets. Therefore, in a sector characterised with market failure due to supplier induced demand and information asymmetries, consumers choosing between providers is not a good situation (Selvaraj and Karan, 2012).

Another big challenge faced by the governments is in the form of failure of accountability. A host of studies exist in the public policy literature (Goetz and Gaventa, 2001; Goetz and Jenkins, 2004; Newell and Bellour, 2002; World Bank, 2004). World Bank (2004) handles this issue at length. In the analysis on accountability presented in the Report, the accountability entails five kinds of relationships: delegation, finance, performance, information and enforcement (Figure 1). In the chain of service delivery the Report distinguishes four broader roles namely clients, policy makers, organisation providers like health departments, and frontline professionals like doctors and nurses. When the government enters the market it has to ensure that the provider has the same or better incentive to satisfy the client. Such a condition implies two things: the policy makers have to have a clear understanding of the needs of the people especially the poor, and the service provider has to be clearly told to meet these requirements. Failures of service delivery are often seen as signs of accountability failure.

World Bank (2004) presents a useful analysis for understanding the problems of accountability failure in the service sector including the health sector. Figure 2 highlights the difference between problems of market failures and accountability failures. The market failures are referred to as problems of short route, that is, information asymmetries between the patient and the provider (doctor) since these occur directly between the two. The accountability failures are described as long route problems essentially arising out of inability of the policy makers to understand the problems of the public (called voice problems in the figure) and inability of the policy makers to create the incentives to the service providers to satisfy the needs of the patients (called Compact in the figure). The framework helps the policy makers to understand the issues in the twin failures and develop policy options accordingly. The literature on policy failures of this type dates back to the twentieth century when Pigou (1920) highlighted the problems of

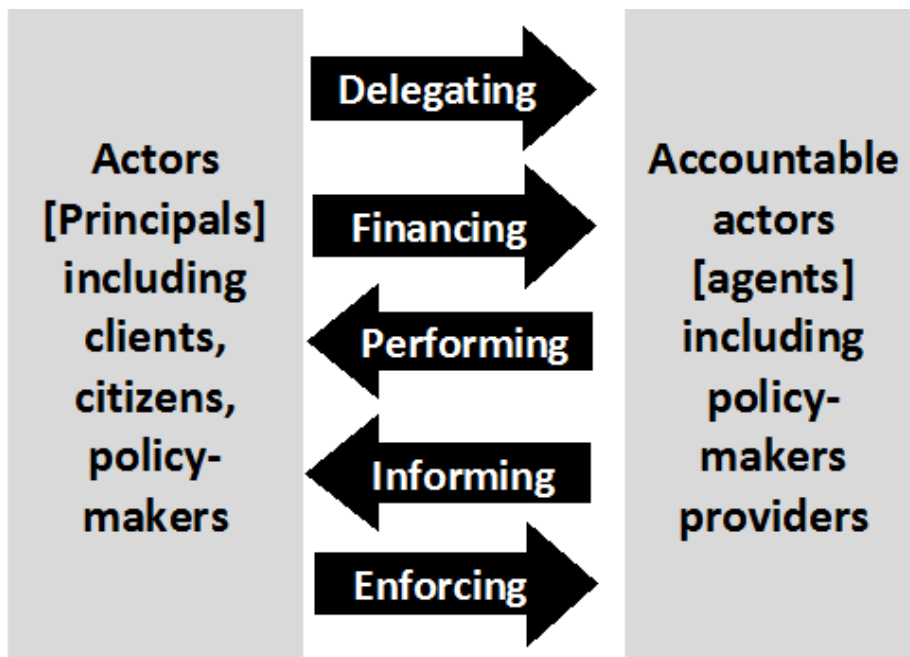


Figure 1. The relationships of accountability have five features.

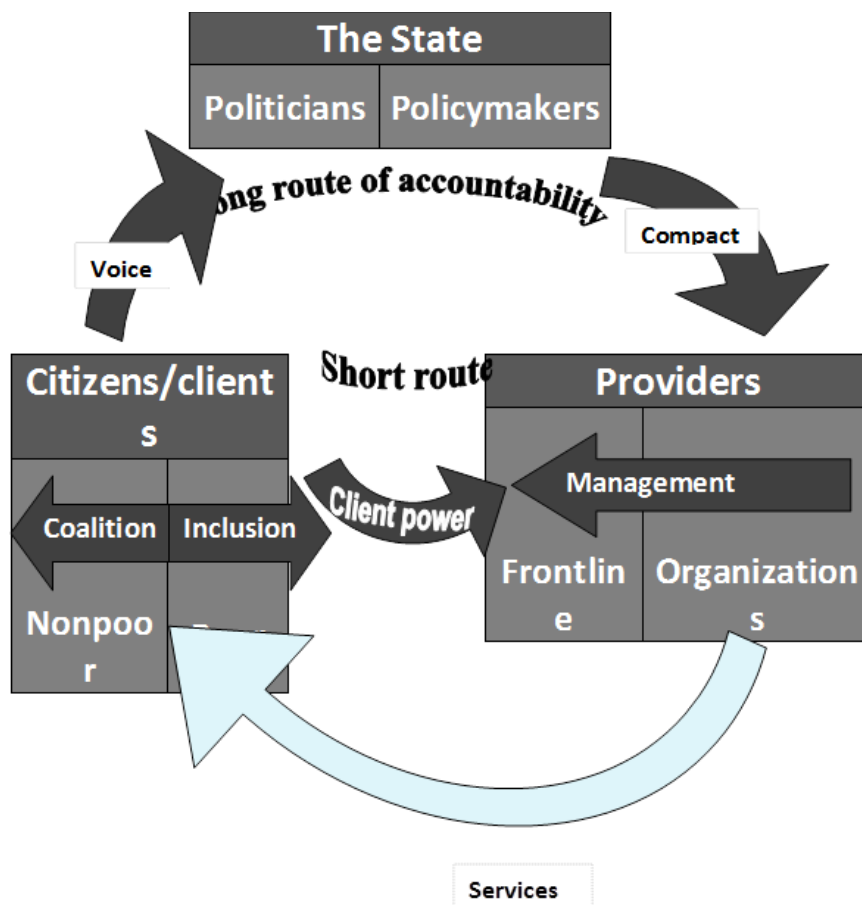


Figure 2. Key relationship of power.

ignorance, succumbing to sectional pressures and corruption. Saxena (2004) attributes continued failure of government in service delivery to accountability failure.

### Health status in India

Life expectancy in India has more than doubled in the last sixty years. It increased from around 30 years at the time of independence to over 63.5 years in 2002-06. Although the decadal increase has slowed from 5.7 years in the 1970s to 3.2 years in the 1990s, the overall life expectancy increased by 14.1 years in the rural areas and 9.9 years in the urban areas during the period 1970-75 to 2002-06. The wide variance in performance across states is of special concern. While in Kerala, a person at the time of birth is expected to live for 74 years, the expectancy of life at birth in states like Assam, Bihar, Madhya Pradesh, Orissa, Rajasthan and Uttar Pradesh is in the range of 58-62 years, a level Kerala achieved during the period 1970-75. Globally India's life expectancy is lower than the global average of 67.5 years and the average of most countries that won their independence from colonial rule at about the same time—China, Vietnam, Sri Lanka, and so on.

India's infant mortality rate too has shown a steady decline, from 129 deaths per 1,000 live births in 1971 to 53 in 2008. The rate of decline has been slowing, from 19 points in the 1970s to 16 points in the current decade. Currently the urban IMR is 36 as compared to the rural IMR of 58. The problem in estimating MMR has been the fixing of a reliable denominator due to the comparative rarity of the event, necessitating a large sample size. However, given this constraint, data suggests that India had a MMR of 460 in 1984, declining to 254 deaths per 100,000 live births in 2004-2006.

There are inter-state variations. Kerala and Tamil Nadu reporting an MMR of 95 and 111 respectively, lower than Assam (480), Bihar/Jharkhand (312), Madhya Pradesh/Chhattisgarh (335), Orissa (303), Rajasthan (388) and Uttar Pradesh/Uttarakhand (440). These nine states account for 47 per cent of India's population represent the core of our poor performance on all four counts of life expectancy, IMR, MMR and TFR (Total Fertility Rate). On the maternal mortality front, all South Asian nations except Sri Lanka do worse than India, and South Asia as a region has poor record of maternal mortality in the world, very significantly affecting the global effort to achieve the Millennium Development Goal set for 2015.

Communicable diseases, maternal, peri natal and nutritional disorders constitute 38 per cent of deaths. Non-communicable diseases account for 42 per cent of all deaths. Injuries and ill-defined causes constitute 10 per cent of deaths each. However, majority of ill-defined causes are at older ages (70 or higher years) and likely to be from non-communicable diseases. Rural areas report

more deaths (41 per cent) due to communicable, maternal, peri natal and nutritional conditions. The proportion of deaths due to non-communicable diseases is less in rural areas (40 per cent). Injuries constitute about the same proportion (about 10 per cent) in both rural and urban areas.

Of the 9.2 million cases of TB that occur in the world every year, nearly 1.9 million are in India accounting for one-fifth of the global TB cases. Experts estimate that about 2.5 million persons have HIV infection in India, World's third highest. More than 1.5 million persons are infected with Malaria every year. Almost half of them suffer from *p.falciparum* Malaria. Diseases like Dengue and Chikungunya have emerged in different parts of India and a population of over 300 million is at risk of getting Acute Encephalitis Syndrome (AES) / Japanese Encephalitis (JE). One-third of global cases infected with filaria live in India. Nearly half of leprosy cases detected in the world in 2008 were contributed by India. More than 300 million episodes of acute diarrhoea occur every year in India in children below 5 years of age.

India had an estimated 2.27 million HIV-positive persons in 2008, with an estimated adult HIV prevalence of 0.29 per cent. This is nearly 7 per cent of the global burden of 33 million HIV cases. As HIV prevalence among high-risk groups (HRG) is very high compared to that among the general population, India continues to be in the category of concentrated epidemic. The sexual mode continues to be the major mode of transmission, though transmission through injecting drug use and men having sex with men are on the rise in many new pockets.

The country is witnessing a rising incidence of non-communicable diseases (NCDs) and old age diseases. This rise is occurring in a setting where health expenditures are growing rapidly led by an unregulated private sector and where health insurance and pension coverage are still limited. These financial concerns are further exacerbated by the emerging evidence that the India's poor are at heightened risk of acquiring NCDs owing to high rates of smoking and tobacco use, occupational risks, and living conditions. According to a World Bank report, it is estimated that Indians spent nearly Rs. 84, 600 crores out of pocket on health care expenses (year 2004), amounting to 3.3 per cent of India's GDP for that year. If we consider only those who are working, the annual income loss to households associated with NCDs is estimated to be Rs. 28,000 crore.

### Concerns in Health Management

Analysis of the health systems in India will focus on the major key outcomes in terms of access and equity, financial burden, quality and efficiency, and empowerment and accountability.

### **Access and equity**

Health is often termed as a merit good (World Bank, 2004; Hammer et al., 2007) requiring the governments to spend more on the health provisioning. India today faces a peculiar situation in terms of health status: while the country has enjoyed accelerated economic growth over the past two decades, it has fared poorly on Human development Indicators and Health Status (Baru et al., 2010). Population averages of child health and maternal mortality remain unacceptably high compared with countries in South and South East Asia (Table 1) that have similar income and growth levels. Alongside the low population level indicators are the inequalities coincide with multiple axis of caste, class, gender, and regional differences (Deaton and Dreze, 2009; Subramanian et al., 2006). NFHS (2006) reveals sharp regional and socio economic divide in health outcomes with lower castes, poor and the less developed regions bearing the burden of mortality disproportionately.

Recent studies (Sen, 2005; Sainath, 2006; Dass, 2006) have concluded that system of public delivery of health services in India is in crisis today. In India, with public health spending accounting for less than 20% of total health spending and out of pocket expenditure is amounting to 98% of all private health expenditure, health and healthcare access is not only poor but also highly inequitable. The National Family Health Survey (NFHS)-3 data brings this out very clearly. The extent of inequity between the top and bottom quintile for some key indicators is huge – U5 (under five years) mortality 2.97 times; access to doctor for ANC (antenatal care) 3.83 times; delivery in a health facility 6.59 times; full immunisation 2.9 times; no immunisation 10.11 times (NFHS-3). This is because the public health expenditure accounts for less than 1% of the gross domestic product (GDP) in contrast to private health expenditure of over 5% of GDP. The latest budget is no different from the last five budgets or for that matter any earlier budget.

The public health service institutions are sub-centres and PHCs at the primary level; community health centres and hospitals at the secondary and teaching hospitals at the tertiary level. Over the last six decades, there has been an expansion of facilities in the public and private sectors. However, by and large, this expansion has been inadequate to ensure universal coverage and access to quality care (Baru et al., 2010). The rural-urban and interstate variations in the distribution of public facilities and human resources are well known (Duggal et al., 2005). These interstate variations are explained by several factors including insufficient public investments and failure to focus attention on the synergies between the role of the centre and the states financing, provisioning and administration of health services. In the private sector, there is diversity and hierarchy in the institutional composition of the for profit sector consisting of a range of informal practitioners, clinics, small and

large nursing homes, corporate hospitals, diagnostic centres and pharmacies (Baru et al., 2010). The informal practitioners constitute the largest proportion in terms of numbers and spread, and provide primary level services in rural and urban areas (Narayana, 2006; Rhode and Vishwanathan, 1995). The secondary level consists of small and large nursing homes that are owned by mostly physician entrepreneurs and provide outpatient and inpatient services. The majority of these are small institutions, with 85% having less than 25 beds.

Tertiary specialty and super-specialty private institutions comprise only 1-2% of the beds in private sector institutions. They include large specialist hospitals promoted by mostly big business groups and managed as corporate entities. The secondary and tertiary hospitals are largely skewed towards urban areas and developed states (Gol, 2006). The distribution of private sector facilities between states and regions is even more unequal than those in the public sector. This reflects the tendency to concentrate on better-off states and regions within them (Bhat, 1993, 1999; Baru et al., 2010).

Variations are pronounced in terms of infrastructure, human resources, supplies, bed-population ratios and spatial distribution of health institutions. The interstate variations are best illustrated by comparing the state of Kerala with that of UP; the former has among the best and the latter the worst indicators of health service development and health outcomes. In spite of the rapid rise in private provisioning of healthcare in Kerala over the past two decades, the relatively better functioning of PHCs and the much higher health status in comparison to other states of India is essentially due to the investment and provisioning of basic services by the state government. Studies on Kerala (WDR, 2004; Dreze and Sen, 1996) have further highlighted the role of the state in investing in social development, even at low levels of per capita income, and achieving improvements in the health, which are comparable to those in middle- and high-income countries (Dreze and Sen, 1996). UP, on the other hand, has a persistence of high poverty levels and poor health services and social development.

The evidence for recent years shows a high (80%) dependence on the private sector for outpatient care, which is largely due to the weakness in the delivery of public health services (Rao, 2005). In 2004, a mere 21% of people in rural and 19% in urban areas utilised the public sector for outpatient services. Figures for inpatient treatment were 42% and 38% in rural and urban areas, respectively (NSSO, 2005). For inpatient care, from a 60% utilisation of public services in the 1980s, the rural and urban utilisation rate has fallen to 42% and 38%, respectively. As the utilisation of inpatient public services decreases with an increase in the income quintiles, in the absence of a strong public sector, the poorer groups are the most severely affected.

In India, as in most countries, there is a clear urban-rural, rich-poor divide. Affluent sections, urban populations

and those working in the organized sector covered under some form of social security such as the ESIS or CGHS, have unlimited access to medical services. The rural population and those working in the unorganized sector have only the tax-based public facilities to depend on for free or subsidized care, and private facilities depending on their ability to pay. The impact on equity then gets determined on whether the tax-based public facilities are able to provide a similar quality of care as provided under the Social Health Insurance Scheme. Because, if funding is low and the quality of care falls below expectation, is inaccessible, entails informal payments, etc. then the benefit of free care at the public facility gets neutralized with the second option of paying out-of-pocket to a relatively hassle free private provider available close by, making the system of financing inequitable as well as inefficient. How and why this is so will be discussed in this section, as an understanding of the current structure of financing is important to identify future options for a better system.

### **Health spending**

Health spending is another area of concern from a policy perspective. Results from the NHA show that the estimated health expenditure in India for the year 2001-02 was approximately Rs 108,732 crore, accounting for 4.8% of the GDP at current market price (Figure 1). Health expenditure as a percentage of the GDP measured at factor cost works out to 5.2%. Out of this, Central, State and local Governments together spend one-fourth of the total health expenditure.

As regards private spending on health, the NHA matrix reveals that 71% of the health budget is contributed by private sector (of which households alone spend 69%. As a percentage of the GDP at current market prices, households spend an estimated 3.3%. Spending by private firms is in various ways: either through their own health facilities, or by providing a lump sum amount to the employee for health, or reimbursing a part of the health expenditure incurred or by contributions to insurance schemes such as ESIS or voluntary private insurance schemes. External aid to the health sector, either to the Government or NGOs, taken together forms 2% of the total health budget. Although the emergence and growth of NGOs have received much attention in India in recent years, their contribution to the health sector is a negligible 0.3% of the total health expenditure. As financial intermediaries, social insurance accounts for around 2.4% of the entire health budget in the country, with a significant contribution by the ESIS. While community insurance is a non-starter in the country, the share of private voluntary insurance schemes has a share of less than 1% of the total health budget.

Even though public sector spending accounts for less than a quarter of the total health spending in India, it has

a major role in terms of planning, regulating and shaping the delivery of health services. Such public provisioning is considered essential to achieve equity and to address the large positive externalities associated with health. As a result, a vast and widespread public health system grew over time across the country; there were 137,311 sub-centres, 22,842 PHCs, 3043 CHCs, 4048 hospitals and a workforce of 345,514 in 2001-02. The way in which the sector is financed determines the effectiveness of service delivery and requires an understanding of the financing mechanisms in this sector. Health being a State subject, the sector is financed primarily by the State Governments. The per capita total health spending was estimated to be around US\$23 during 1997- 2000 (World Bank 2003). As compared to the levels of spending by countries such as Sri Lanka (US\$31) and Thailand (US\$71), the spending in India is substantially low. A breakdown of health expenditure reveals that expenditure by the public sector in these countries is twice that of India. Substantially higher levels of health outcomes in these countries as compared to India clearly indicate that there is a strong case to markedly increase public sector spending on health, as stated in the National Health Policy 2002 and the National Common Minimum Programme (CMP) 2004.

The primary source of public financing is the general tax and non-tax revenues. These include grants and loans received from both internal and external agencies, which face competing demands from various ministries and departments. This pool of resources is used to finance the Centre's and States' own programmes. The Central Government plays a catalytic role in aligning the States' health programmes to meet certain national health goals through various policy guidelines as well as financing certain critical components of centrally sponsored programmes implemented by the State Governments.

In addition to tax revenues, a meagre amount is also raised through user charges, fees and fines from the sector, and further supplemented through grants and loans received from external sources. In the case of local governments, the respective State Governments largely finance their health programmes. Local governments do raise resources through user charges and certain fees though the quantum varies widely from States to States. Overall, the sector is underfunded, not without consequences. An issue that is often raised in the context of inadequacy of resources to the sector is the efficiency of the resources allocated. The current level of funding to the sector is grossly inadequate as brought out by various studies over the past decade or so. A concern that is equally voiced is how judiciously the funds allocated currently are utilized. Countries such as Bangladesh and Indonesia spend about US\$14 and US\$19, respectively, per capita on health; relatively less than the per capita spending by India (US\$23). But the health outcomes in terms of child mortality are

considerably better in these countries-74 for Bangladesh and 45 for Indonesia compared to 93 for India (World Bank 2003). This clearly reveals that the current level of spending has the potential to improve the outcomes if properly allocated.

The 52nd Round of the NSS provided insights into the quintile-wise health-seeking behaviour. As per this data, of the poor who availed of services, 61% used public facilities compared to 33% among the rich. The poorest, however, benefit relatively more from spending on primary care only (Mahal, 2001). This is primarily on account of the poor quality and irregular supply of these services which dissuade the rich from accessing them. Further, many of the services that benefit the poor are, to some extent centrally funded vertical programmes such as immunization, ANC, TB, Malaria, Leprosy, etc. The inequity in the access to and distribution of public health services has been a concern because of the extent of impoverishment households face on account of ill health, and catastrophic illnesses in particular.

### **Quality and Efficiency**

Serious concerns are expressed in terms of quality of service rendered and its efficiency. Hussain (2011), Hammer et al. (2007), Chaudhary et al. (2006), and Das and Hammer (2005) examine this issue at length. Quality of physical infrastructure, availability of equipments and medicines, manpower availability, and availability and efficiency in service delivery are some of the aspects studied for examining the quality and efficiency of the health infrastructure. Hussain (2011)'s analysis of the physical infrastructure reveals that only 36 % of PHCs are functioning on 24/7 basis. The study also finds that in majority of the states surveyed PHCs did not have 4-6 beds and care corner for new born babies. Gill (2009) found absence of toilet and medical waste disposal facilities in PHCs, CHCs and SCS. Rapid Appraisal Survey carried out by the population research centres (PRCs) found that (Hussain, 2011) there were shortages in basic infrastructure and medicines. Similar conclusions were drawn by Gulati et. al (2009) in their survey in Uttar Pradesh. This non availability of medicine forces the patients to buy from the open markets leading to high out of pocket expenditure.

The quality of the health workforce is crucial in delivering good health outcomes. Evaluation reports have highlighted a shortage of manpower – of doctors at the PHC level and specialists at the CHC level (Table 2). Data from the health ministry reveals that 11% of the PHCs do not have a doctor (this is 17% in high focus states). At the CHC level, only 49% of the required specialist posts have been sanctioned so far, and 25% positioned. Less than a third of the required number of staff nurses has been positioned.

The proportion of auxiliary nurse midwives (ANMs) staying at the SCs has reduced in several states, owing

to the non-availability of quarters for them. ANMs also attribute reluctance to reside in staff quarters to the poor conditions of the quarters, lack of infrastructural facilities and safety concerns. This has resulted in a low proportion of SCs with arrangements for night delivery, and is responsible for the continued dependence of the rural population on district hospitals and private providers. In particular, the lack of availability of delivery arrangements has affected the JSY in many regions, thereby limiting the role of the ASHAs.

Manpower shortage in rural areas has emerged as a major problem in other developing countries also. An examination of the policies undertaken in other countries provides valuable insights into how this problem can be tackled in the long run. A cross-country study of the success of compulsory service shows that such a strategy can work only when supported by economic incentives (Frehywot et al., 2010), though the type of incentives that are likely to be attractive varies among countries (Blaaw et al., 2010). Some states like Rajasthan and Chhattisgarh have been successful in designing an attractive combination of financial and non-financial incentives (NRHM, 2009a). Persons from rural backgrounds may also be relatively willing to accept rural postings (Serneels et al., 2010); location-specific selection of ANMs in West Bengal, for instance, has been successful in this regard.

Apart from lack of manpower, another factor that affects the delivery of health services is absenteeism. Evaluation reports identified the absence of social facilities like educational infrastructure for children, irregular supply of electricity and potable water, and safety of women in some of the rural tracts in UP, and unhygienic and insanitation in villages and health facilities as reasons underlying absenteeism and reluctance to accept rural postings. This led to suggestions that such handicaps be compensated by enhanced financial incentives in the form of non-practising and transport allowances (Gulati et al., 2009).

Results of a large-scale study of surprise visits to health facilities in all the major states highlight that the average level of absenteeism for the country is very high (Hammer et al., 2007). The study also found that absenteeism was worst in the smaller sub-centres (for staff that were not supposed to be on home visits), followed by the primary care centres and best for the few community health centres (small hospitals) in the sample. Since salaries are paid regardless of absences, the total cost of maintaining a PHC system includes both those costs that are legitimately necessary to keep facilities running, but also those costs that are received by providers in the form of "rent", that is, payments that do not lead to increased services.

The problem of manpower in public health facilities is not confined to availability alone. Das and Hammer (2005) report serious concerns in terms of quality of manpower. In their study on quality of manpower in Delhi, it is found that competence level of MBBS in PHCs is so



low that there was a 50% chance of doctor recommending a positively harmful therapy. The study also noticed a tendency among the government doctors to exert less compared to the private practitioners.

The classic trade off in economics is between equity and efficiency, and this shows up in medical care. Efficiency was not a great concern when health systems were established; countries were content to have inefficient medical-care systems provided they treated all equally. But the equality-efficiency balance has been thrown into conflict by the fundamentals of the medical-care market (Cutler, 2002). Medical costs have increased rapidly over time, as technological change has expanded the capability of medicine. Since 1960, medical care has more than doubled as a share of GDP. The result of this technological change is that governments face increasingly severe financing crises.

### ***Empowerment and accountability***

As pointed out by Gulati et al. (2009b), decentralisation facilitates the integrated delivery of health services through the convergence of services like drinking water, sanitation, nutrition, empowerment, etc, that are of crucial importance in ensuring a healthy population, while simultaneously ensuring that local healthcare needs are addressed. The Integrated Health Action Plan is a major instrument in leading to the inter-sectoral convergence. At the initial stages, this plan would be prepared only at the district level – by the district health mission under the zila parishad. Given that this is a pioneering exercise in large-scale decentralisation, the initial experience has been quite encouraging though diverse (Sinha, 2009). Some states have been able to involve panchayats in the planning process, resulting in the identification of important micro-level issues and problems. In other parts of the country, consultants with technical planning skills formed the core of the planning process. While this somewhat reduced the participative element in these plans, at least it has initiated the process in states where conditions were not conducive for decentralised planning (ibid). In 2006-07, about 48% of the districts had prepared district plans, and by 2008-09 this figure rose to 85%. However, 2009-10 witnessed a decline (74%) – which might indicate that the process of decentralisation is running out of steam. Some of the State CRMs also support the observation that these district plans have not been repeated after the initial year in some villages.

The PRIs from the village to the district level are expected to get the ownership of the public health system in their respective jurisdictions. While the CHC and PHC will involve the elected members of the panchayati raj in their management through the RKS, the SC will be accountable to the gram panchayat (GP) through the local committee under the village health and sanitation committee (VHSC). So far, VHSCs have been

established in nearly 75% of the villages, and have received cumulative financial assistance of Rs 970 crore as untied funds. The objective of this committee is to help the ANM in preparing the SC action plan and help her in planning and implementing various programmes related to health, hygiene, nutrition, sanitation and drinking water.

The NRHM guidelines state that the VHSC should comprise the ANM, ASHA, representatives of the village panchayat, women non-governmental organisations and self-help groups. Backward social classes should also be represented. Some evaluation studies have noted that the constitution of the VHSC does not always follow these norms – for instance, in J&K, representatives of the village, socially backward classes or women representatives are not present in many of the VHSCs formed (Bhat et al., 2009). The failure of the state health departments to provide training through orientation programmes to the VHSC members has limited their role to helping the ANMs utilise the untied funds.

Meetings are not regularly held in many states, and the role of the VHSCs in preparing the district plans has remained limited. Bajpai et al. (2009) report that 95% of ANMs had joint bank accounts with the sarpanch of the panchayat. Further, analysis of expenditure patterns reveals that in general, funds were used for overcoming the infrastructural shortcomings wherever they were used. However, expenditure of the untied funds in some cases is planned by the ANM in consultation with the block medical officers, bypassing the panchayat members (Bhat et al 2009).

### **CONCLUSION AND RECOMMENDATIONS: THE WAY FORWARD**

The issues in the health sector in India range from low public expenditure (less than 1% of GDP), concentration of infrastructure in the urban areas (over 75 per cent of infrastructure is in urban areas), problems of equity with bias against the poor and the downtrodden, problems of access (Baru et al., 2010), lack of accountability, and deficiency of manpower (Husain, 2011). Analysis by Joe et al. (2008) reveals that the degree of health inequalities escalates when the rising average income levels of the population are accompanied by rising income inequalities. The income-poor sections have different needs and therefore, planning and intervention necessitates an understanding of the sources of inequality and recognition of the vulnerable groups to arrive at efficient resource allocation and policy decisions.

It is recommended that decentralisation facilitates the integrated delivery of health services through convergence of services like drinking water, sanitation, nutrition, and empowerment which are crucial for health and control at local level (Gulati et al., 2009). However, despite the NHRM, mandate to prepare district level

integrated plans, 2009-10 witnessed a decline in percentage of districts adopting integrated plans (Husain, 2011).

People's behaviour is a major factor to health. This includes hygiene of all kinds, immunization, water quality, and all factors associated with non-communicable lifestyle disease. It may be appropriate to start with the assessment of epidemiological needs of different regions and socio-economic subgroups, with priority to the needs of the most deprived. The current reality of the heavy burden of infectious diseases should be seen along with an emerging trend of non-communicable and chronic diseases, accidents, injuries and ageing of the population. It is advocated (NCMH, 2005) that health promotion and disease prevention can mitigate factors that cause both communicable and non-communicable disease. By supporting healthy public policy (e.g. limiting advertisements to healthy products), creating supportive infrastructure (improving access to clean water, healthy foods), strengthening community action (engaging villagers to build and use latrines), developing personal skills (teaching hygiene practices, good nutrition and stress management), and reorienting health services to prevent and cure; health promotion initiatives can improve life and prevent disease.

However, for doing so, it is necessary to contextualise the healthcare needs in the real life conditions, such as related to employment, incomes, food security, environmental hazards, work conditions and housing, water and sanitation. These pertain to not only undertaking non-medical preventive health action, but also for their implications on the medical preventive and treatment regimens that would optimally work under such conditions. Likewise promoting the health-seeking behaviour and perceptions of people is important to planning for healthcare. The prime concern should be removing the constraints faced by the marginalised majority to take actions for improving health, rather than relying on strategies of mass screening and compulsion or monetary incentives to accept medicalised solutions. With 90% of workers being in the informal sector and over 75% living at or below Rs 20 per day (Gupta et. al, 2011), epidemiologically rational comprehensive services must be provided free of charge in the entire public system in all states across the country. Not only the consultations, but also diagnostics and medicines must be provided free of charge.

One of the solutions often recommended (John, 2010; WHO, 2005) for solving problems of equity in health care is introducing a right based approach to health care provision. This is also in consonance with the recent trend in governance marking a shift from a service based approach to rights based approach with the implementation of Mahatma Gandhi National Rural Employment Guarantee Act, Right to Education Act, and Food Security Act. It could then be tagged with the Unique Identification number scheme to track the access

of facility by the beneficiaries.

Expansion of infrastructure to improve population coverage by healthcare institutions in the public system is essential if universal access is to be assured. The responsibility of the State in the provision of quality services must be specified. The cost of this, as estimated by various public health experts is about Rs 2,000 per capita per year and totals to about 5-6% of gross domestic product. Besides, there is a need to rethink and augment the existing model and network of sub-centre, PHC, CHC and district hospital. Building upon the team approach envisaged in the PHC approach, we need to expand the team to ensure the appropriate skill mix for institutional and outreach services. The new model, while taking into consideration the existing structures, should not be bound to reproduce them with little or no variation. While getting informed by existing realities, it should plan for what is needed and ideal. The way to achieve the ideal would be to break it into feasible incremental objectives with change planned in a phased manner within a realistic time frame.

Developing public-private partnerships in health sector forms an important recommendation in health systems development strategies (WDR, 2004; WHO, 2008). These partnerships could focus on both clinical and non-clinical areas. On the clinical side, it could include specialty care (tertiary and high-tech curative care), reaching vulnerable and target groups of population (e.g., STD, HIV/AIDS, TB), and addressing problems of access in remote areas where public services do not reach (e.g., in RCH programme). On the non-clinical side, participation of the private sector is in areas such as diet and catering, laundry, security, etc. The interaction between private and public sectors in health can assume several forms and institutional arrangements.

The involvement of private sector is based on the argument that it helps to improve the efficiency of existing limited resources and also it ensures the availability of services, which is important to improve access to health care. However, public-private partnerships (PPPs) have to be with a clear definition of shared objectives, priorities and an effective regulatory mechanism in place. Otherwise, it entails dangers of siphoning off of public funds to the private sector with no commensurate benefit to the users. The private sector is known to escalate costs and engage in more irrational practice.

Human resources for health cannot merely be governed by universal norms of population coverage, but need to be planned based on local epidemiological needs, on the optimal levels of healthcare required for them, and on the cost effectiveness and safety of the measures to be taken. Their numbers, education and skill development must be commensurate with the tasks required of them. This will depend on the requirement for services as epidemiologically assessed, taking into account the optimal role of all levels of healthcare of all systems of health knowledge and practice – from home

and community level care to institutional primary, secondary and tertiary levels. Population norms for institutional coverage must take into account the distance, time and expenditure required to reach them in different settings of terrain and development of transport and communication in different parts of the country.

The use of indigenous systems of medicine and homeopathy must receive much greater attention, with documentation and research-based identification of their role in the overall healthcare system. The issues of rational and ethical healthcare practice by healthcare professionals need foregrounding and cannot be dealt with as mere side-issues relegated to some later point of time. In fact, any initiatives at PPPs must come only *after* effective measures have been taken to bring about this transformation of the professional providers.

Attracting more doctors into the public system is possible through improved conditions of work, adequate facilities for rational care, and intake into medical college with consideration to social background of the doctors that is conducive to their entry and retention in the rural and public services. Monetary incentives and increasing the number of medical colleges will not be enough to get more doctors into the public system.

There ought to be a fundamental reconstruction of the cadre structure for public health workers, with managerial physicians playing a pivotal role. The district health administration being the focal point of rural health services may be headed by a managerial physician as the chief medical officer, with the superintendent of the district hospital under her/ his charge. The current system of specialist- dominated CHCs at the block level needs review, possibly with a managerial physician being in charge of the entire health services in the block.

Public health education and medical undergraduate education need to be revised in keeping with this perspective. The teaching of preventive and social medicine/community medicine within medical colleges needs to be rejuvenated rather than leaving it in isolation, while the emerging temples of public health garner support and resources.

Decentralised planning and grievance mechanisms must be actively built and nurtured in order that this perspective is operationalised. Mechanisms for active participation of local elected bodies, democratically elected civil society members and direct deliberative involvement of communities will be required for a locally rooted health service. Rejuvenation of the key technical support institutions such as the All-India Institute of Hygiene and Public Health, National Institute of Health and Family Welfare, Indian Council of Medical Research and National Centre of Disease Control will provide an endogenous base for health policy and planning, relying upon the vast technical competence available in the country. As scientific bodies, there must be a complete transparency in their deliberative processes, regarding decision-making about health policies and programmes.

Requirements of people's health within this perspective should determine whatever international collaborations are developed, and not some vested commercial or professional interests.

An institution should be charged and capacitated specifically for setting up an endogenous mechanism of evaluation of health technologies for recommending their role in the country's healthcare, based on epidemiological rationality and appropriateness to context.

A National Health Information and Evaluation System, starting from the village onwards, ought to become the nerve centre of the UAHC system. This will be necessary for our first three propositions that of setting priorities based on the local epidemiological and health services context as well as people's perceptions. Thus, we come full circle in outlining the elements of the health system for universal access. It is evident that the efforts underway fall short of these essential requirements. We hope a more grounded and contextually rooted approach to healthcare systems development will become possible in the near future as we engage in transparent public discussion on the issue.

In a systems perspective, the potential conflict between primary health care as a discrete level of care and as an overall approach to responsive, equitable health service provision can be reconciled. This shift emphasizes that primary health care is integrated into a larger whole, and its principles will inform and guide the functioning of the overall system. A health system based on primary health care will:

1. build on the Alma-Ata principles of equity, universal access, community participation, and intersectoral approaches;
2. take account of broader population health issues, reflecting and reinforcing public health functions;
3. create the conditions for effective provision of services to poor and excluded groups;
4. organize integrated and seamless care, linking prevention, acute care and chronic care across all components of the health system;
5. continuously evaluate and strive to improve performance.

Intervention across the disease continuum is needed to achieve the comprehensive care envisaged by such a system. To deal with the increasing burden of chronic diseases, both non-communicable and communicable, requires upstream health promotion and disease prevention in the community as well as downstream disease management within health care services. Two integrated health care models, the chronic care model and its extension – WHO's innovative care for chronic conditions framework – promote primary health care concepts: inter-sectoral partnerships, community participation and seamless population-based care. Evidence supports the use of these integrated models as a means

of implementing primary health care principles, with demonstrated reduction in health care costs, lower use of health care services, and improved health status.

### Conflict of Interests

The author has not declared any conflict of interests.

### REFERENCES

- Bajpai N, Sach JD, Dholakia RH (2010). Improving Access, Service Delivery and Efficiency of the public Health Systems in rural india. Mid term evaluation of NRHM. Working Paper No, 37, centre of Globalisation and Sustainable Development, Columbia University, Access No 23 April 2010.
- Baru R, Acharya A, Acharya S, Kumar AK, Nagaraj K (2010). Inequities in Access to Health Services in India: Caste, Class and Region. *Economic and Political Weekly* 45(3)8:49-57.
- Bhat R (1993). Public-Private Mix in health Care in India. *Health Policy and Planning*. 8(1):43-56.
- Cutler DM (2002). Equality, Efficiency, and Market Fundamentals: The Dynamics of International Medical-Care Reform. *J. Econ. Lit.* 40:881-906
- Das G (2006). The Best of Times and The Worst of Times. *Times of India*, April 22.
- Dreze J, Sen A (1996). *Indian Development: Selected regional Perspectives*. New Delhi: Oxford University Press.
- Filmer D, hammer SJ, Pritchett HL (2000) Weak Links in the Chain: A diagnosis of Health Policy in Poor countries. *The World Bank Research Observer*, 15(2):47-66.
- Filmer D, Pritchett HL (2001) Estimating Wealth Effects without expenditure of Data or Tears: An Application of Enrolments in States of India. *Demography*.
- Gill K (2009). A primary evaluation of Service Delivery under NRHM. Working Paper no 1/2009. Planning Commission of India.
- Goetz AM, Gaventa J (2001). Bringing Client Voice and Client Focus in Service Delivery. *IDS Working Paper No 138*. [www.ids.ac.uk](http://www.ids.ac.uk).
- Goetz AM, Jenkins (2004). Accountability in Adam Kuper and Jessica Kuper Edt. *The Social Science Encyclopedia*. New York: Routledge.
- Government of India (2005): National Rural Health Mission (2005-2012): Mission Statement, Ministry of Health and Family Welfare, New Delhi, accessed at [http://www.mohfw.nic.in/NRHM/Documents/Mission\\_Document.pdf](http://www.mohfw.nic.in/NRHM/Documents/Mission_Document.pdf) on 19 April 2010.
- Gol (2006) Approach Paper to the Eleventh Five-Year Plan. New Delhi: Planning Commission, Government of India.
- Gulati SC, Raghubansh MS, Arundhati K, Rajesh R, Gagandeep K (2009). Rapid Appraisal of RHM facilities. New Delhi: Government of India.
- Gupta A, Jain A, Nair AB, Banerji D, Chakraborty G, Qadeer I (2011). Universal Access to Health Care: threats and Opportunities. *Econ. Polit. Weekly* 46(26):27-30.
- Hammer J, Aiyar Y, Samji S (2007). Understanding Government Failure in Public Health Services. *Economic and Political Weekly*, October 6, 2007: 4049-4056.
- Husain Z (2011) Health of the National Rural Health Mission. *Econ. Polit. Weekly* 46(4):53-60.
- Joe W, Misra US, Navaneetham KN (2008). Health Inequalities in India: Evidence from NFHS-3. *Economic and Political Weekly*, August 2008: 41-47.
- John TJ (2010). Is India ready for overhaul in health care?. *Econ. Polit. Weekly* 45(20):14-17.
- Newell P, Bellour S (2002) Mapping Accountability Origins, Context and Implications for Development. *IDS Working Paper No. 168*.
- NRHM (2009). Third Common Review Mission Report – November 2009. New Delhi: Ministry of Health and Family Welfare, <http://www.mohfw.nic.in/NRHM/CRM/>.
- NSSO (2006). "Morbidity, Health Care and the Condition of the Aged, National Sample Survey", 60<sup>th</sup> Round (January-June 2004), Report No. 507. New Delhi: Ministry of Statistics and Programme Implementation, Government of India.
- NSSO (2007). Consumer Expenditure Survey 61st Round. New Delhi: Central Statistical Organisation.
- Phadke A (2011). Planning Health for all. *Economic and Political Weekly*, 47(21):15-18.
- Pigou AC (1920). *The Economics of Welfare*. London: Macmillian and Co.
- Rao S (2004). Health Insurance: Concepts Issues and Challenges. *Econ. Polit. Weekly* pp.3835-3843.
- Rao S (2005). Delivery of Services in the Public Sector: financing and Delivery of Health Care in India. New Delhi: Government of India.
- Sainath P (2006). *The Health of Nations: Seeking a Way Forward*. The Hindu, January 4.
- Saxena NC (2004). Improving Delivery of Programs through Administrative Reforms in India. [www.nac.nic.in](http://www.nac.nic.in).
- Selvaraj S, Karan A (2012). Why Publicly-Financed health Insurance Schemes are Ineffective in Providing Financial Risk Protection. *Econ. Polit. Weekly* 47(11):60-68.
- Sen A (2005). india's Poor Needs a Redical Package. *The Hindu*, January 9.
- Strauss J, Thomas D (1998). Health, Nutrition and Economic Development. *J. Econ. Literature* 36:766-817.
- UNDP (1990) *Human Development Report, 1990*. Oxford: Oxford University Press.
- World Bank (1993). *World Development Report: Investing in Health*. Washington, D.C: The World Bank.
- World Bank (2002). *Better Health Systems for India's Poor: Analysis, findings, and Options*. Washington D.C.: The World Bank.
- World Development Report (2004). *World Development Report 2004: Making Services Work for the Poor People*. Washigton. D.C: The World Bank.
- WHO (2006). *World Health Report*. Geneva: World Health Organisation.
- WHO (2008). *Primary Health Care Now More Than Ever*. Geneva: World Health Organisation.
- WHO (2007). *World Health Statistics 2007*. Geneva: World Health Organisation.