Inequities in Access to Health Services in India: Caste, Class and Region

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Despite India's impressive economic performance after the introduction of economic reforms in the 1990s, progress in advancing the health status of Indians has been slow and uneven. Large inequities in health and access to health services continue to persist and have even widened across states, between rural and urban areas, and within communities. Three forms of inequities have dominated India's health sector. Historical inequities that have their roots in the policies and practices of British colonial India, many of which continued to be pursued well after independence; socio-economic inequities manifest in caste, class and gender differentials; and inequities in the availability, utilisation and affordability of health services. Of these, critical to ensuring health for all in the immediate future will be the effectiveness with which India addresses inequities in provisioning of health services and assurance of quality care.

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India, over the last two decades, has enjoyed accelerated economic growth, but has fared poorly in human development indicators and health outcomes. Population averages of health status indicators, such as child health and maternal mortality, remain unacceptably high compared with countries in the south and east Asian region that have similar income levels and rates of economic growth. Underlying the low population level indicators, worrisome inequities coincide with the multiple axes of caste, class, gender and regional differences (Deaton and Dreze 2009; Claeson et al 2000; Subramanian et al 2006).

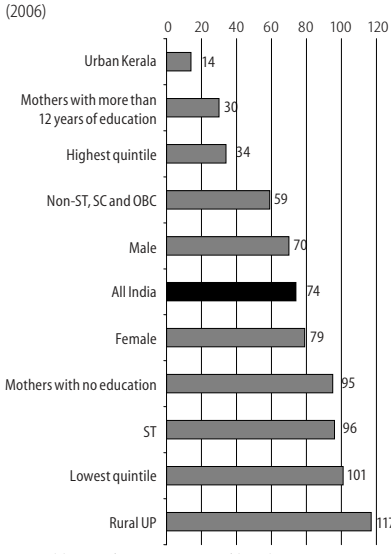
In India, an important determinant of socio-economic inequities in nearly all spheres of well-being is caste. The official classification defines four categories of caste: scheduled castes (SCs), scheduled tribes (STs), Other Backward Classes (OBCs), and others. The SCs, the lowest level in the hierarchy, constitute around 16% of the Indian population, a large percentage of who live in rural areas and are landless agricultural labourers. The STs, or adivasis, often like SCs, suffer economic and social deprivation. They comprise around 8% of India's population. OBCs and forward castes together comprise 76% of India's total population (RGI 2001).

Taking the under-five-mortality rate (U5MR), i e, mortality among children younger than five years; as an indicator, we describe inequities in the health status. The National Family Health Survey (NFHS 2005-06) reveals sharp regional and socio-economic divides in health outcomes, with the lower castes, the poor and the less developed states bearing the burden of mortality disproportionately. High rates of infant mortality and U5MR are, in general, inversely associated with income. These inequities are also accompanied by wide gaps across gender and caste (Gwatkin 2000; Subramanian et al 2006). The risks of mortality before the age of five years are higher in girls than in boys; among SCs, STs OBCs as compared to others; and in the rural areas of Uttar Pradesh (UP), one of the poorest states in India, than urban Kerala. Evidence from urban areas in Kerala and from educated mothers (completing 12 years of education) has shown that low mortality in children younger than five years is, indeed, possible in India. U5MR for the richest income quintile earners is three times lower than that for the poorest quintile (Figure 1, p 50).

The Indian average for U5MR decreased from a rate of 101 (per 1,000) to 74 (per 1,000) during the accelerated economic growth from 1998 to 2006. However, this is a period marked by increasing inequities, as shown by a high U5MR among the SCs and STs, when compared with the backward classes and others. This social gap had increased dramatically in the 1990s for the STs, in

comparison with the general population, while the social gap between the SCs and others; and backward classes and others have persisted from the early 1990s to 2006. For example, the average annual rate of reduction in U5MR between 1998-99 and 2005-06 among STs (3.9%) and SCs (4.2%) was lower than that among OBCs (4.8%) and the rest of the population (4.6%) (Figure 2).

Figure 1: Inequities in Under-Five Mortality in India (2006)



Source: (1) IIPS and Macro International (2007); NFHS 3, 2005-06: India Vol 1.
(2) http://www.nfhsindia.org/report.html accessed on 19 June 2009.

Trends in India's infant mortality rates (IMR) similarly capture a slowing down in the rates of improvement in child survival. For instance, the average annual rate of reduction in IMR, which was 2.91% during 1976-86, dropped to 2.84% from 1986 to 1996, and further to 2.31% during 1996-2006. The decade of the 1980s saw a 27% decline in the country's IMR from 110 in 1981 to 80 in 1991. The next 10 years, 1991-2001, corresponding to the first decade of economic reforms, witnessed a considerable slowing down in the rates of reduction, a decline of 19% in IMR to 66 in 2001 (Claeson et al 2000; Mari Bhat 2001).

1 Determinants of Health Inequities

Three major forms of inequities have been largely responsible for the persistent and even widening differentials in health outcomes: historical inequities, socio-economic inequities and inequities in provision and access to health services. Among the various factors that influence health, availability, accessibility and affordability of health services are important determinants for improving population health. Healthcare financing and provisioning arrangements play a critical role in reducing or perpetuating existing inequities and shape the pattern of health service use and expenditure (Gilson et al 2007; Mackintosh 2001). This paper seeks to examine the status of health service delivery in India and the constraints it faces for achieving equity by addressing the following objectives:

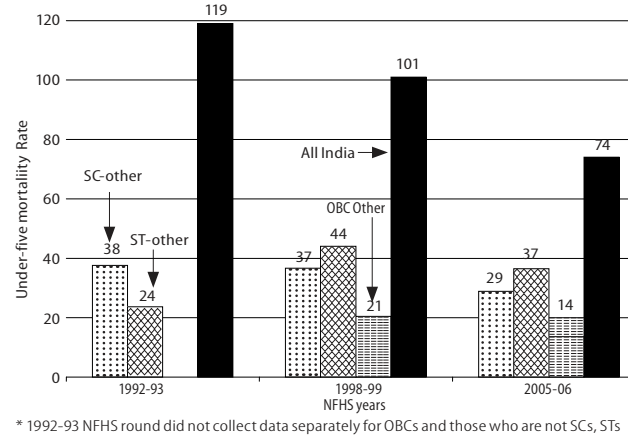
- To examine the inequities in availability, accessibility and affordability across geographic, social and economic groups.
- To examine key health service barriers that are responsible for inequities in access.
- To examine recent initiatives for reducing inequities in availability, accessibility and affordability of health services.

In order to examine the first objective, we have relied on several data sources. For availability of health services the major sources are the Central Bureau of Health Intelligence, Ministry of Health and Family Welfare, Government of India, and the National Facility Survey Report conducted in 2003 as part of the reproductive and child health survey on primary health centres (PHCs). For the demand-side analysis, we have used data from three rounds of NFHS, conducted in 1992-93, 1995-96 and 2005-06, to obtain information on utilisation of maternal and child health services, antenatal care (ANC) and immunisation coverage. To assess utilisation of health services and the associated expenditure, three rounds of National Sample Survey Organisation (NSSO), i e, NSSO 42nd round of 1986-87, 52nd round of 1995-96 and 60th round of 2004 have been used.

2 Features of Health Service Provisioning

The present status of health service delivery has its roots in the policy and practices during the British colonial period (Banerji 1985; Priya 2005). Many of these policies were pursued even after independence and health services were marked by inequities in availability and accessibility. Consensus is that even during the post-independence period, health services were under-financed and biased towards allopathic medicine, urban areas and curative services. Indigenous systems like ayurveda, siddha, unani and homeopathy, continue to play only a marginal role in health service delivery (Banerji 1985).

Figure 2: Social Gap in Under-Five Mortality for Three Periods 1992-93*, 1998-99 and 2005-06



* 1992-93 NFHS round did not collect data separately for OBCs and those who are not SCs, STs and OBCs.
Source: IIPS, 1995. NFHS, 1992-93 IIPS and Macro International 2000, 2007, NFHS 2, 1998-99, NFHS 3: 2005-06, Vol 1.

The public health service institutions are sub-centres and PHCs at the most basic or 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. 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. Constitutionally, the responsibility for implementation of health interventions lies largely on the state governments, with the central government providing policy directions and the financing of national health programmes.

Apart from direct state financing, covering only a small segment of the population, there are several public insurance schemes for employees in the organised sectors such as the employees' state insurance scheme, central government health scheme, railways and posts and telegraph services. Public and private insurance schemes cover barely 11% of the population (GOI 2006). Consequently, healthcare is financed substantially through out-of-pocket (OOP) payments by individuals and households.

The private sector, constituting both "for profit" and "non-profit" institutions, has a sizeable presence in delivery of health services, which comprises a wide array of institutions with varying degrees of sophistication in terms of services and qualified personnel. The "for profit" sector is proportionately larger than the "non-profit" sector; the latter includes community level programmes, dispensaries and hospitals that are funded by religious and secular organisations (Nundy 2005). 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 (Jesani and Anantharaman 1990; Nandraj 2000; Baru 2005). 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 (GOI 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 2005).

3 Inequities in Access to Health Services

It is well known that reduction in mortality and morbidity is partly due to preventive and curative interventions by public health services. The availability of these services is, however, uneven across Indian states because of differences in infrastructure, human resources, supplies and spatial distribution. In this section we describe the barriers to equity and universality in terms of inequities in availability, utilisation and affordability of healthcare.

Availability of Care: Inequalities are pervasive in the availability of public health services in the rural and urban areas and across states. 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 (Table 1).

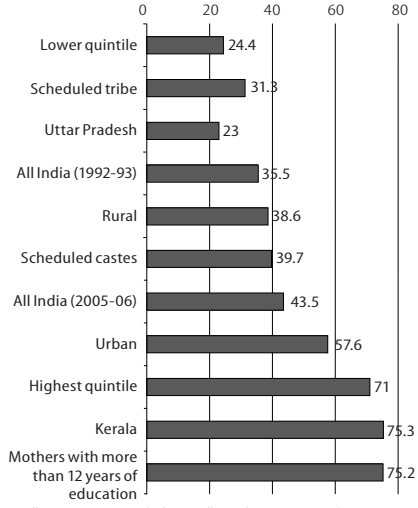
Table 1: Selected Health and Socio-economic Indicators: Kerala, UP and India

Indicators	Year	Kerala	Uttar Pradesh	India
Population (in millions)	2009	34	194	1,160
Female-to-male ratio (females per 1,000 males)	2009	1,052	898	932
Per capita state domestic product (Rs)	2006-07	33,609	14,649	29,642
Life expectancy at birth (years)	2001-05	74	62	63
Under-five mortality rate	2005-06	16	96	74
Infant mortality rate	2007	13	69	55
Literacy rate (%)	2001	91	56	65
Female literacy rate (%)	2001	88	42	54
Population covered by a sub-centre		4,628	6,416	5,111
Population covered by a PHC		29,570	45,095	33,191
% of villages having access to a PHC within five km		94	48	44
PHC with at least 60% of inputs: Infrastructure		65	17	32
Staff		97	53	48
Supply		78	20	40
Population served per government hospital		1,77,614	6,01,241	1,56,556
Population per government hospital bed		1,299	20,041	2,336
% deliveries attended by health personnel	2005-06	99.4	27.2	41.2
% children 12-23 months fully immunised	2005-06	75	23	43.5

Source: (1) Central Bureau of Health Intelligence. www.nrhm.nic.in accessed on 6 March 2009, Ministry of Health and Family Welfare, CBHI (2004).
(2) IIPS (2003). India Facility Survey, RCH-RHS.

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 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.

Figure 3: Full Immunisation Rate*, Inequities in Utilisation of Preventive Care



* Full immunisation includes Bacillus Calmette-Guérin (BCG against tuberculosis), measles, and three doses each of diphtheria, pertussis (whooping cough) and tetanus (DPT) and polio vaccine (excluding polio vaccine given at birth).
Source: (1) IIPS and Macro international (2007), NFHS 3 2005-06: India Vol 1.
(2) http://www.nfhsindia.org/factsheet.html accessed on 30 September 2009.

Inequities in Utilisation of Preventive Services

The utilisation of preventive services such as childhood immunisation and ANC are effective indicators for assessing the availability, accessibility and quality at the primary level of health services provisioning. The overall indicators for full immunisation are poor in India with variation across rural and urban areas; states and socio-economic groups (Figure 3).

The all-India average for full immunisation coverage for the year 2005-06 was 44%. The rural-urban differential was substantial, with a coverage rate of 39% among the rural and 58% in the urban populations. There has been only an 8% improvement in coverage between 1992-93 and 2005-06. A comparison of Kerala and UP illustrates the interstate variations. The overall full immunisation coverage for Kerala is 75.3% with a rural-urban differential of about 17% (69.4% rural and 87.5% urban). While in the case of UP, it is only 22.9% with a rural-urban differential of about 12% (20.5% and 32.6% rural and urban, respectively). UP showed an increase of 11.6% in full immunisation coverage from 1998-99 to 2005-06, while Kerala showed a drop in coverage from 80% 1998-99 to 75% in 2005-06. Reports have indicated that Kerala has been facing financial and human resource constraints in the public health services, which have adversely affected the coverage in the state (Achutha Menon Centre of Health Sciences 2005).

While the all India immunisation coverage is low (44%), there is considerable variation across socio-economic groups. The coverage in the highest income quintile (71%) is three times that in the lowest quintile (24.4%). There is a substantial gap in immunisation coverage between the STs (31.3%) and others (53.8%). Although there has been some improvement in coverage from 26% in 1998-99 to 31% in 2005-06 for the STs and from 47% to 53.8% for others, the gap has not narrowed significantly across these two groups.

All India rate for receiving full ANC stood at 51% of women in 2005-06, with a rural-urban differential of 43% and 74%, respectively. An imperceptible increase in ANC coverage was reported: from 43.9% in 1992-93 to 44.2% in 1998-99; an increase to 50.7% was seen in 2005-06. For Kerala, the overall figure was 94% with a rural-urban coverage of 92% and 97%, respectively. Similar to the case of full immunisation coverage, a slight decline in ANC coverage has also been reported in Kerala: from 99% in 1998-99 to 94% in 2005-06. In UP, the overall figure for 2005-06 was at a low of 26%, with the rural-urban differential of 23% and 41%, respectively. Data across all states show an upward trend in ANC coverage, with some notable decline among the top performers, such as Kerala.

Inequities in Utilisation of Curative Services

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 (ibid).

Interstate variations occur in the utilisation of public services for outpatient treatment. Kerala and Tamil Nadu, which have better developed and administered services at the primary level, show a slightly higher level of utilisation of the public sector than the all-India average, whereas poorer states like Madhya Pradesh, Bihar and UP show lower levels of utilisation than the all-India public level.

Hospitalisation presents a mixed picture. Even with relatively better infrastructure for public services, such states as Maharashtra, Punjab and Haryana show higher private sector utilisation. However, in some other states, such as Himachal Pradesh, West Bengal, Rajasthan and the north-eastern states, a higher dependence on the public sector is evident. Availability of private facilities, cost and quality of services account for these variations (ibid).

Affordability of Health Services: Affordability of health services is determined by the cost of treatment, households' ability to manage these costs, and its impact on the livelihood of households (Gilson et al 2007). In India, OOP payments form a disproportionately large component of total health expenditure. OOP expenditures include direct payments for consultations, diagnostic testing, medicines and transportation. Indirect costs, such as loss of earnings due to the illness, are not included in calculating OOP expenditures. It is estimated that 80% of total health expenditure and 97% of private expenditure are borne through OOP payments (GOI 2006). The largest component of OOP expenditure is on the purchase of medicines. Estimates from the National Sample Survey (NSS) for 1999-2000 shows that 70% of the total OOP expenditure in urban and 77% in rural areas are spent on medicines (Sakthivel 2005).

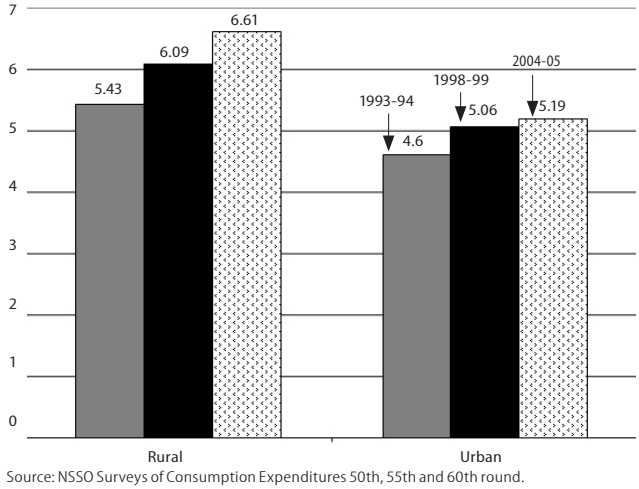
Adverse socio-economic differential in OOP expenditure is exhibited by the fact that the poorest rural quintile spends 87% of OOP expenditure on medicines, whereas the corresponding expenditure for the richest urban quintile is comparatively smaller at 65% (Garg and Karan 2005). In the absence of financial risk protection, the high OOP expenditure affects the poorer quintiles adversely. Based on estimates for 2005-06, after adjusting for health expenditure due to OOP payments, an additional 3.5% of the population, or 35 million people, fell below the poverty line (Dreze and Sen 1996). A slight upward trend was observed from the estimate made in 1999-2000, when 3.25%, or 32 million people, fell below the poverty line (Garg and Karan 2005; Bonu et al 2007).

Inequities in Health Expenditure Burden: Expenditure on consumption of healthcare is higher in the rural than in the urban population. This apparent anomaly is probably because people living in towns and cities have better access to public and private services compared with those in rural areas, and therefore, experience a higher financial burden when they access healthcare. Summarising the 2004-05 NSSO Consumption Survey data, 6.6% of household consumption expenditure was spent on health in rural and 5.2% in urban areas, an increase from the corresponding figures of 5.4% and 4.6% in 1993-94 (Figure 4, p 53).

In the 60th round of NSS (2004-06), the average direct health expenditure on outpatient care per treated person in rural areas was nearly 20% of total household consumption expenditure, whereas the corresponding percentage for urban areas is lower,

at about 13%. With indirect costs and income loss for that period due to illness are added, the proportion is close to 33% in rural and 17% in urban areas. Thus, the expenditure burden of what may be called "day-to-day morbidities" (reference period of 15 days) is very high, particularly in the rural areas. The burden of expenditure for hospitalisation (reference period of one year) is almost of the same order as outpatient care. In rural areas, the burden of direct expenses alone is approximately 18%, being slightly higher in urban areas.

Figure 4: Health Spending as Percentage of Household Consumption Expenditure



Source: NSSO Surveys of Consumption Expenditures 50th, 55th and 60th round.

In order to capture the inequities and burden of health expenditure across consumption classes, we have undertaken an analysis based on the 60th round of the NSSO. The analysis has included households that sought treatment for outpatient and inpatient care in rural and urban areas and reported the expenditure incurred. The expenditure includes both direct and indirect expenses, as commonly categorised in the health economics literature.

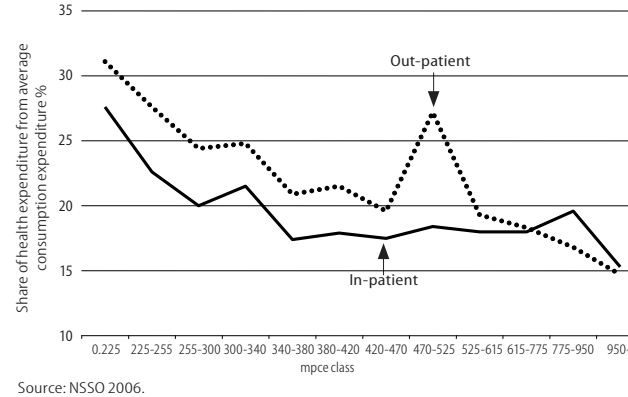
The formula used for computing the burden (b_i) of health expenditure is as follows:

$b_i = X_i/C_i$

For the consumption size class i, the burden $b_i = X_i/C_i$, where X is the average health-related expenditure during the period of reference (15 days for non-hospitalised ailments and 365 days for hospitalised cases) per indisposed person. C is the average overall consumption expenditure per household during the corresponding period.

Based on the analysis we find that the burden of direct health expenditure across consumption classes shows a clear gradient. While the poorer sections carry a higher burden compared with the better-off, this burden is quite heavy for even the remaining consumption classes. Total direct health-related expenditure as a percentage of household consumption expenditure for outpatient care in rural areas is the highest, at around 30%, for the poorest consumption size class. However, it declines only marginally, staying around 25%, for the next seven out of 12 consumption size classes. It is important to note that the first eight consumption size classes account for 60% of the population in rural India. The corresponding burden measure for inpatient care in rural areas is even more striking. While this burden is the highest for the poorest consumption size class, at around 28%, it stays around 20% for the rest of the classes, except for the highest consumption size class. Thus, the burden of expenditure for hospitalisation is substantial for nearly 90% of the population (Figure 5).

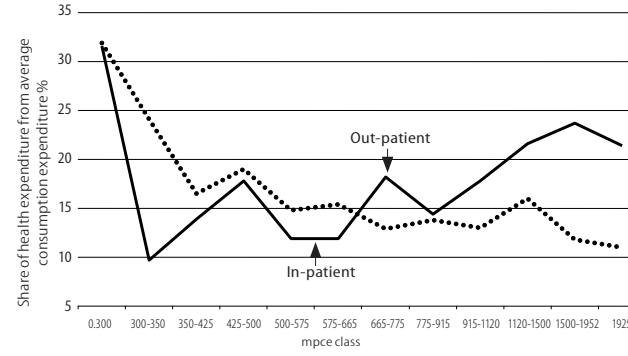
Figure 5: Burden of Direct Health Expenditure on the Household for Outpatient and Inpatient Treatment in Rural Areas (2004)



Source: NSSO 2006.

This trend holds true for outpatient care in the urban areas. The expenditure burden is very high for the poorest two size classes; it stays at around 15%-16% for all but the two richest size classes. The pattern is different for inpatient care. The expenditure burden is very high for the poorest two classes and the three richest size classes. The high burden for the richest sections is because they use private (mostly tertiary) and corporate hospitals on a significant scale where the cost of care is very high compared with other rungs of the private and public sector (Figure 6).

Figure 6: Burden of Direct Health Expenditure on the Household for Outpatient and Inpatient Treatment in Urban Areas (2004)



Source: NSSO 2006, NSSO 2005.

Sources of Financing Healthcare: Analysis of data from the NSS shows that the high burden of expenditure on healthcare, is largely financed through two major sources: (a) household's own resources, and (b) borrowings. In rural areas, close to a fifth of the health expenses for outpatient care is financed through borrowing; the corresponding percentage for hospitalisation is much higher at around 40% (NSSO 2006). The recourse to borrowing, while being substantial even in the urban areas, is of a lower order compared to the rural areas. The reliance on borrowing is significantly higher for the poorer sections of the population compared to the better-off with sharp differentials, especially in urban areas (NSSO 2006).

Several of these observations are corroborated by a study of 482 poor households in Udaipur, Rajasthan which showed that

nearly 29% of the households identified health expenditure as the major source of financial stress (Banerjee and Duflo 2007). Faced with the reality that healthcare costs to the households have been rising, the poor often finance such expenditure by cutting down consumption levels of other members of the household (Iyer et al 2007). Thus, illness of a member of the household can have deleterious consequences for the household towards further impoverishment of the households (Sen et al 2002; Garg and Karan 2005).

4 Factors Affecting Equity in Access to Health Services

The previous section has presented the inequities in availability, utilisation and affordability of health services. We identify and discuss five key health service factors that affect equity in access to health services. These include – insufficient investments in public sector; variable quality of care in public and private sectors; unregulated commercialisation and rising costs; health sector reforms; and lack of accountability in the public and private sector.

Insufficient Investments in Public Sector

The low public investment in health services over the last six decades has been a significant cause for the poor functioning and utilisation of public services. The per capita expenditure on health is low compared with other countries with same level of income, and the government expenditure is even lower. The per capita bilateral and multilateral donor funding for health is among the lowest for countries at the same income level. The per capita aid over a three-year average, from 2004 to 2006, was approximately $0.80, the corresponding government spending was at $6.50 and total per capita health expenditure was around $35.00. These figures, along with external per capita aid, are lower than many of the poorer African and south-east Asian countries (OECD 2008). Government spending, at approximately 19%-20% of health expenditure, is among the lowest in the world (WHO 2008). Further, due to federalism, large variations in financing across states induce variability in availability of health services.

The long-standing weakness in public health services has been partly responsible for accelerating expansion in the private sector, and for the public-private mix. The private sector has expanded by drawing upon public subsidies in the form of human resources from subsidised medical education, allowing those with public appointments to undertake private practice, and offering tax concessions for import of medical technology and infrastructural facilities (Bhat 1993, 1999; Baru 1998; 2002).

Unregulated Commercialisation and Rising Costs: Unregulated commercialisation of provisioning, medical technology, medical and paramedical education has adverse impact on quality and cost of healthcare. In the case of provisioning, this is due to the variability in providers' qualifications, physical standards, cost and technical quality of care. The primary level that forms the largest segment of the private sector, is unregulated that has an adverse impact on the technical quality and cost of care (Uplekar et al 2001; Kamat 2001; Jeffery et al 2007; Rhode and Vishwanathan 1995; Nandraj 2007; Das and Hammer 2007; Banerjee et al 2007). The problems are similar for the secondary level, but there are a few initiatives for regulating clinical establishments and efforts at creating systems for accreditation are being put in place. In the absence of effective regulation, the cost of healthcare is uncontrolled in the private sector. An example of this is the tremendous variation in costs for the same intervention across hospitals between the private and public sector. For a normal delivery the cost in public sector is anywhere from Rs 0 to Rs 128, whereas in the private sector it varies from Rs 472 to Rs 1,573. Similarly, for a caesarian section it is Rs 50 to Rs 250 in the public sector, while it is Rs 1,792 to Rs 4,647 in the private sector. There are variations even for diagnostic testing. A routine blood test costs Rs 0 to Rs 19 in the public sector, while it is Rs 30 to Rs 59 in the private sector (Rao et al 2005).

Unregulated commercialisation of provisioning, medical technology and medical and paramedical education has an adverse impact on the quality and cost of healthcare. In the case of provisioning, the adverse impact results from the variability in providers' qualifications, physical standards, cost and technical know-how. The primary and secondary levels, which constitute the largest segment of the private sector, are unregulated, thus unfavourably affecting technical quality and cost of care (Bhat 1993; Sundar 1995; Duggal 2005; Rhode and Vishwanathan 1995; Narayana 2006).

The recent enactment of the Clinical Establishment (Registration and Regulation) Bill 2007, seeks to regulate private and non-government health institutions by laying down minimum standards for services at the secondary and tertiary levels. The primary level care remains unregulated and lacks a proper system of registry and monitoring. In case of drugs and pharmaceuticals, there is a proposal to revise the Drugs and Cosmetics Act, aimed at adopting good practices for manufacturing, selling of pharmaceuticals, conducting clinical trials; regulating the quality of blood products, and legalising of the use of the Enzyme-Linked Immuno-Sorbent Assay (ELISA) test in regional blood banks. To rectify the fact that currently medical technology is largely unregulated in terms of use, quality and cost, a draft Medical Devices Regulation Bill has been formulated that is awaiting ratification by the Parliament. It includes a proposal for setting up a Indian Medical Devices Regulatory Authority (IMDRA). It is evident that regulation of the provisioning, pharmaceuticals and technology are still in a rudimentary state of development. Most of these initiatives are centrally driven, while states have largely not initiated regulatory frameworks in several key areas, such as ensuring registration of private providers, nursing homes, laboratories, diagnostic centres and clinics, including the Indian systems of medicine. Even where such legislation exists, the rules and minimum standards have not been fully implemented (Nandraj and Duggal 1997).

Health Sector Reforms: Commercialisation was furthered during the period of liberalisation and structural adjustment through the health sector reform initiatives during the 1990s. These reforms introduced market principles in the public health services in order to improve the efficiency and quality of care. Many of these initiatives were introduced through the health sector reform initiative as a part of the Structural Adjustment Programme of the World Bank during the 1990s. A range of measures, such as the introduction of user fees, contracting out of clinical and ancillary services to the

private sector, decentralisation and public-private partnerships were introduced (Duggal 2005). The evidence on the experience of the introduction of user fees in the public sector across states is somewhat mixed in terms of impact on levels of utilisation. In some states, for example, Andhra Pradesh, utilisation of the public sector has improved after health sector initiatives were put in place (Shariff and Singh 2002). However, the available evidence shows that user fees have tended to exclude the poorest, despite efforts to ensure that those below the poverty line are exempt from paying user charges (Garg and Karan 2005). International experience also corroborates the findings from India and shows that even a small user fee charge can exclude the poor from utilising health services (Hola and Kremer 2009).

Not all reform initiatives in health have been led by the World Bank. Prominent among the state-led is the Tamil Nadu Medical Supplies Corporation (TNMSC) that has been successful in streamlining drug procurement, distribution and controlling costs of medicines in the public services. The Tamil Nadu model is being adapted by several states in India for ensuring a proper supply of drugs in the public services. In 1995, the Tamil Nadu government adopted a list of essential drugs to be provided through the TNMSC.

TNMSC, designed and funded entirely by the state government is responsible for the purchase and distribution of essential drugs in the public health services. This ranges from tasks that include identifying suppliers who monitor appropriate storage of drugs in warehouses and its appropriate distribution. TNMSC has laid strict and elaborate procedures to ensure an uninterrupted and quality supply of medicines. A drug committee identifies the list of essential drugs. It consists of professors of medicine, clinicians in various medical fields, pharmacologists, a representative from the World Health Organisation, health secretary and the managing director of TNMSC. All government healthcare institutions and pharmacists are given the list of essential drugs. Thereafter, local health officials can request the committee to modify the list in accordance with their local needs. The drugs allocated to PHCs are limited to 54 essential drugs. TNMSC invites tenders by advertising in the print media, including pharmaceutical trade journals and its own web site, with clear guidelines for supplier selection, quality control and distribution. The committee pays the supplier only after receiving a report on quality control. A detailed system of warehousing the drugs and accounting by the health centre are a part of the procurement policy (Lalitha 2005 and 2007).

Variable Quality of Care in Public and Private Sectors: Common complaints against public care cited in the recent NSSO (2006) and NFHS (1998-99 and 2005-06) include: "Not satisfied with medical treatment", "lack of availability of services", "long waiting times", "poor quality of care", and poor interpersonal interactions. Additionally, assessment of the public sectors underscore poor technical competence, poor accessibility to services, inadequacy of drugs and supplies, poor staff availability, and poor quality and amenities (Rao et al 2005).

The quality of health services is dependent on a number of factors related to technical competence, accessibility to services, interpersonal relations and presence of adequate drugs, supplies, staff and facility amenities. Several studies have commented on the variable quality of public services due to lack of adequate infrastructure, human resources and indifferent behaviour of public employees (Rao et al 2005; GOI 2006). The recent plan documents have acknowledged these as constraints on the quality of care provided by the public sector (GOI 2006).

More recent surveys and studies also show that people are not satisfied with public services and highlight the lack of infrastructure and indifferent and rude behaviour of personnel as important reasons for not using public services. According to the NSSO, "not satisfied with medical treatment" ranks as the primary reason in both rural and urban areas. This is followed by "lack of availability of services" in rural, and "long waiting" in urban areas. Similarly, the latest NFHS shows that the perception of "poor quality of care" is the most important reason across selected states. The survey itself does not provide insight into what the determinants of quality are in health services. A recent study showed that determinants of quality include clinical and interpersonal dimensions and these influence the choice and utilisation of ANC (Rani et al 2007).

The assumption that private services offer superior quality of services is not adequately supported by any hard evidence. While some private sector facilities offer good quality services, this cannot be generalised because of the heterogeneity of facilities, personnel and their practices. Evidence from micro studies is revealing. Private care practitioners along with public care practitioners, for example, in Delhi, are more skilled and knowledgeable in the wealthier areas in comparison to the poorer area (Das and Hammer 2007). Informal practitioners adopt irrational practices in prescribing medicines for the treatment of communicable diseases like malaria, diarrhoea, tuberculosis and fevers (Banerjee et al 2004; Uplekar et al 2001; Kamat 2001). Such practices are also evident in infertility care services and childbirth (Unisa 1999). In case of obstetric care, a study of informal practitioners in western Uttar Pradesh shows inappropriate use of oxytocin to speed up labour in women during home deliveries (Jeffery et al 2007). These practices are not only inappropriate, but dangerous for maternal health as it results in serious postpartum complications and related morbidities.

At the secondary level, a study of private hospitals in Chennai revealed that this sector has grown without any norms for infrastructure, with a strong tendency to over-provide care, depending on the patients' ability to pay (Muraleedharan 1999). Another study in rural in Maharashtra revealed that only 55% of private sector institutions had registration, only 38% maintained any kind of records, and that a remarkably high proportion lacked basic facilities. This study showed that close to 30% were being run by doctors not trained in the allopathic system of medicine. They were being run without adequate facilities and human-power, with only 2% employing trained nurses. Only 10% of hospitals had an ECG monitor, 655 a steriliser and 56% an oxygen cylinder (Nandraj and Duggal 1997). Yet another study found that caesarean sections were performed three times more in private hospitals than public ones (Homan and Thankappan 1999). The extent of variability and lacunae that several of these studies have observed in infrastructure, basic facilities, human

resources and medical equipment point to poor quality in the private sector as well.

Problems in the formal private sector include the following: physicians tend to over-prescribe care according to patients' ability to pay; a lack of registration procedures; badly kept records; and inadequate infrastructure with poorly trained physicians and nurses (Nandraj and Duggal 1997). A commonly observed phenomenon is over-prescription of medicines, diagnostic testing and surgeries. Studies on informal practitioners in rural and urban areas show that they often lack qualifications and adopt irrational practices in prescribing medicines for the treatment of common illnesses.

Lack of Accountability in Public and Private Sectors: The regulatory and institutional mechanisms for promoting accountability to consumers of health services are extremely weak in both the public and private sectors. Some key areas in the public sector that lack accountability are absenteeism of providers, indifferent behaviour of service providers and corruption. The private sector is prone to the overuse and misuse of technology and unethical practices and there is very little accountability. Studies have shown that there is a high rate of absenteeism among medical and paramedical personnel in the Indian health services. The absence rates are much higher in poorer areas, more among doctors than health workers and at the primary as compared to the secondary or tertiary levels (Chaudhury et al 2006).

Apart from absenteeism it is well known that there is corruption in the public health services. Patients' report of corruption in terms of bribes demanded for admission and treatment in public institutions. Corruption is also rife in recruitment, promotion and transfer of personnel; admission to medical and paramedical education; procurement of drugs and technology (Sakthivel 2005). Corruption is not restricted to the public sector alone. The private sector also has its share of corruption in the form of unethical practices. There is a well-worked out system of paying commissions when doctors refer patients for diagnostic testing in the private sector. Similarly, the pharmaceutical industry through their representatives offer a variety of incentives to doctors for prescribing specific brands of medicines (Bhat 1993 and 1999; Phadke 1998; Baru 1998, 2002). With liberalisation and increase in public subsidies to the private sector to the tertiary sectors, there are reports of non-compliance to the equity conditionalities by corporate hospitals.

While the lack of accountability of the public sector is well known, the private sector is not any different. If anything, there are fewer checks on their accountability due to weak regulation. The role of consumer groups in ensuring accountability has been limited. An example of an effective campaign by consumer groups was when they drew attention to the rise in reported cases of medical negligence in the private sector. A few cases were registered with the consumer courts and compensation was given for medical negligence in the private sector. Since dual public and private practices are permitted, the public sector acts, at times, only as a referral portal for the legalised private practices.

Barriers for Marginalised Populations: The systemic weaknesses in the Indian health services have perpetuated socio-economic and regional inequities. The evidence shows that the poor, a majority of those who are socially marginalised, get the least access to preventive and curative health services (Govender and Kekana 2007; Peters et al 2002; Hart 2000; Gupta and Dasgupta 2007; Mahal et al 2002). Several micro studies have shown financial and cultural barriers to utilisation of health services faced by marginalised groups. The national level NSSO data also shows that untreated morbidities are higher for the following groups: Rural versus urban; females versus males; SCs and STs versus forward castes; and lower consumption classes *versus* the higher ones. Women belonging to the SCs and STs have much poorer access to healthcare compared with men and women belonging to the other castes and classes (NSSO 2006; Iyer et al 2007; IIPS 2007, Rani et al 2007; Nayar 2007; Acharya 2002, 2010).

5 Equity Enhancing Initiatives

The Health Policy of 2002 and the 10th Plan documents have expressed concern about the persistence of inequities in provisioning, use and health outcomes. Equity concerns were also echoed by the 11th Plan document that took cognisance of several issues: the link between poverty and ill-health; the systemic weakness of public provisioning and the need for a strong public provisioning in order to ensure affordable access; regulation of the private sector; concern about rising costs and its negative impact on the poor and the non-poor; greater attention to the needs of marginalised sections, especially women (GOI 2006). Many of these concerns have been raised by civil society organisations for over two decades through several campaigns. Examples of these are the women's groups that have taken up issues on the choice of reproductive technologies, access to basic services for women; banning irrational and unsafe technologies. Similarly, the All-India Drug Action Network campaigned for a rational drug policy. The broad alliance for a People's Health Movement under the banner of the Jan Swasthya Abhiyan mobilised health activists, non-governmental organisations (NGOs) and academics around the concerns of equity, quality, accountability and regulation. It also campaigned for the need to recognise health as a right (Shukla 2008). Under the framework of right to healthcare, the National Human Rights Commission (NHRC) initiated a series of public hearings, called *Jan Sunwais*, in collaboration with the Jan Swasthya Abhiyan. The Jan Sunwais dealt with denial of healthcare to individuals and structural inadequacies of the public and private health services. It brought together medical professionals, academics, NGOs, consumer groups, and health activists to highlight the inadequacies in the Indian health services. The proceedings of the regional hearings were communicated to the ministers and senior bureaucrats of the newly elected coalition government-led by the Congress Party, with support from the communist and several regional parties. These initiatives managed to put pressure on the government to respond to the multiple axes of inequities: caste, class, gender and region, in access to health services. The United Progressive Alliance government, voted into power in 2004, included some of these concerns in its Common Minimum Programme (Narayan 2008; Shukla 2008). This led to the formulation of the National Rural Health Mission (NRHM), launched in April 2005.

The NRHM is a large, centrally-driven programme of the government which has tried to address some of the key inequities like underinvestment in financing, human resources, infrastructure and some aspects of quality in the public sector. It has also initiated several measures for accountability such as political checks and balances, administrative procedures and auditing (Dasgupta and Qadeer 2005; Shukla 2005).

Many of the strategies focus only on the public sector, while the role of the private sector and its regulation is poorly defined. Its focuses on rural areas and less developed states as a step towards bridging rural-urban and inter- and intra-state inequities in the availability of health services. The review of the NRHM has shown that there are interstate variations in the uptake of the programme and there are serious gaps in the availability, deployment and retention of medical and paramedical personnel.

In response to the high out-of-pocket expenditure on health services and the increasing burden on the poor and socially marginalised, the government has initiated an insurance scheme, Rashtriya Swasthya Bima Yojana (RSBY). This is a hospital insurance scheme for families below the poverty line as a protection from catastrophic expenses. While this is an important protective measure for those below the poverty line, our analysis on burden of health expenditure across consumption groups shows that the burden is quite substantial for even the rest of the population.

6 The Way Forward

In order to address the persistence of inequities in health and access to health services in India, we identify four key areas that require urgent attention and actions.

Most of the equity enhancing programmes are centrally sponsored, time bound and vertical interventions. They are sponsored and implemented by separate ministries with little coordination let alone synergies between programmes. There has been a tendency for these newer initiatives to target the socially marginalised and those below poverty line. Our analysis of burden of expenditure shows that while the poorest are worst affected, the burden is substantial even for the middle quintiles. This holds true for outpatient and inpatient care in rural and urban areas. This raises concerns regarding targeted approaches that focus only on poorest, but argues for universal access to health services.

(1) Given the number of programmes that are focusing on the poor and socially marginalised, the need arises for enhanced public investments and greater synergies at different levels of implementation within and across ministries.

(2) Comprehensive regulation of the public and private sectors is required in provisioning, medical technology and pharmaceuticals. This is critical for controlling costs and improving quality and accountability. Provider behaviour, an essential component of quality and accountability, requires innovative approaches that permit a greater voice in monitoring performance to beneficiary communities and their representatives. For the private sector, accountability can be assured by a combination of legislation, involvement of professional organisations, consumer rights groups and public action. The way forward in the public sector could be the implementation of the Indian Public Health Standards and a combination of incentives and disincentives to induce greater sensitivity and accountability of providers at the panchayat or the municipality level.

(3) New and innovative systems of monitoring performance and evaluating progress towards equitable health outcomes need to be introduced. It would be worthwhile, for instance, to adopt the idea of institutionalising a health equity gauge, that helps to track inequities, similar to that initiated in South Africa and adopted by a few middle- and low-income countries at the central and state levels. Another innovative initiative is seen in the case of Health Councils in Brazil that have institutionalised health issues as a primary policy concern both at the local and national levels as a citizen's right (Equity Guage 1999). The present government can build further on the steps they have started, and address inequalities in availability, utilisation and affordability with greater seriousness, as well as a courtship of democratic voices and the rules of deliberative democracy (Gutman and Thompson 1996; Daniels 2008; Bonu et al 2007).

(4) Health security in India needs to become an urgent national and political priority. Rapid improvements in health are needed not only to accelerate and sustain India's economic growth; they are also fundamental to India gaining recognition as a distinguished middle-income country with improved standards of living and reduced levels of human deprivation. Focusing on health equity will be critical to enhancing human capabilities and advancing the progress of Indian society over the next decade.

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