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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.

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 (Desai and Dreze 2000; Clemens et al 2000; Subramanian et al 2000).

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 caste (sc), scheduled tribes (st), Other Backward Classes (obc), 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 tribals, often like scs, suffer economic and social deprivation. They comprise around 8% of India's population, and forward castes together comprise 76% of India's total population (see 2001).

Taking the under-five mortality rate (ufmr), 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 2002-03) 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 ufmr are, in general, inversely associated with income. These inequities are also accompanied by wide gaps across gender and caste (Gowditi 2000; Subramanian et al 2000). The risks of mortality before the age of five years are higher in girls than in boys; among sts, sts scs 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, upsurges for the richest income quintile earners is three times lower than that for the poorest quintile (Figure 1, p 30).

The Indian average for ufmr decreased from a rate of 106 (per 1,000) to 74 (per 1,000) during the accelerated economic growth from 1980 to 2004. However, this is a period marked by increasing inequities, as shown by a high upsurge among the scs and sts, when compared with the backward classes and others. This social gap had increased dramatically in the upsurge for the sts, in

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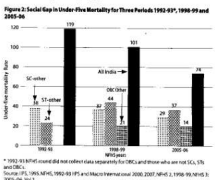
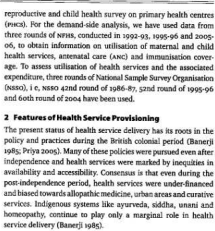
comparison with the general population, while the social gap between the scs and others, and backward classes and others have persisted from the early upsurge to 2004. For example, the average annual rate of reduction in ufmr between 1998-99 and 2003-04 among sts (3.4%) and scs (4.2%) was lower than that among ocs (4.9%) and the rest of the population (4.6%) (Figure 2). Trends in India's infant mortality rate (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 2.6% during 1976-86, dropped to 2.84% from 1986 to 1996, and further to 2.1% during 1996-2000. The decade of the 1990s saw a 27% decline in the country's imr from 100 in 1980 to 80 in 2000. The next 10 years, 1990-2000, corresponding to the first decade of economic reforms, witnessed a considerable slowing down in the rates of reduction, a decline of 4% in rate to 60 in 2000 (Clemens et al 2000; Mari Bhat 2000).

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 (Gibson et al 2007; Mackinnon 2000). This paper seeks to examine the nature 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 Family Survey Report conducted in 2003 as part of the



reproductive and child health survey on primary health centres (pchs). For the demand-side analysis, we have used data from three rounds of nfhs, conducted in 1992-93, 1999-00 and 2004-05, 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 (nss), i.e., nss-40 round of 1980-89, 50th round of 1999-99 and 60th round of 2004 have been used.

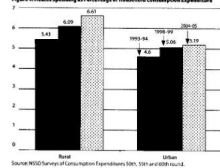
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at about 13%. With indirect costs and income loss for that period due to illness are added, the proportion is close to 33% in rural and 17% in urban areas. Thus, the expenditure burden of what may be called 'day-to-day medical' (reference period of 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 6: Health Spending as Percentage of Household Consumption Expenditure



Source: NCD Survey of Consumption Expenditure 2001, 2004 and 2008 (NCD).

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 NSS. 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) of health expenditure is as follows:

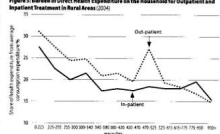
$$b = X/C_i$$

For the consumption size class (i), the burden $b = X/C_i$, 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 individual 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 28% for the next even 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 30% of the population (Figure 5).

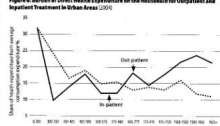
Figure 5: Burden of Direct Health Expenditure on the Household for Outpatient and Inpatient Treatment in Rural Areas (2004)



Source: NSS 2002-2003.

This trend holds true for outpatient care in the urban areas. The expenditure burden is very high for the poorest two size classes; it may be around 18%-19% 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 ranges 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: NSS 2002-2003.

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% (2002-2003). 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 (2002-2003).

Several of these observations are corroborated by a study of 480 poor households in Udaipur, Rajasthan which showed that

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nearly 30% of the households identified health expenditure as the major source of financial stress (Banerjee and Datta 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 (Jyer et al 2007). Thus, illness of a member of the household can have deleterious consequences for the household towards further impoverishment of the household (Datta 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: (i) insufficient investments in public sector; (ii) variable quality of care in public and private sectors; (iii) unregulated commercialisation and rising costs; (iv) health sector reforms; and (v) 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 \$55.00. These figures, along with external per capita aid, are lower than many of the poorer African and south-east Asian countries (2002-2006). Government spending, at approximately 9% of health expenditure, is among the lowest in the world (2002-2006). Further, due to federalism, large variations in financing across states induce variability in availability of health services.

The long-standing weaknesses in public health services have 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; Bhat 1998, 2000).

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 of care forms the largest segment of the private sector, is unregulated that has an adverse impact on the technical quality and cost of care (Upadekar et al 2000; Ramani 2000; Jeffrey et al 2000; Rhoads 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 8 to Rs 128, whereas in the private sector it varies from Rs 472 to Rs 1,573. Similarly, for a caesarean section it is Rs 50 to Rs 750 in the public sector, while it is Rs 1,200 to Rs 4,451 in the private sector. There are variations even for diagnostic testing. A routine blood test costs Rs 0 to Rs 10 in the public sector, while it is Rs 30 to Rs 50 in the private sector (Bhat 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; Sindler 1995; Duggal 2000; Rhoads and Vishwanathan 1995; Narayana 2006).

The recent enactment of the Clinical Establishments (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 entry 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 legitimising the use of the Enzyme-Linked Immunosorbent 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 an Indian Medical Devices Regulatory Authority (IMDRU). 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

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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 (Sharma and Singh 2001). 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 Kumar 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 (Hsa and Forster 2005).

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 (rwsoc) that has been successful in streamlining drug procurement, distribution and controlling costs of medicines in the public services. The Tamil Nadu model is being adopted 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 rwsoc.

rwsoc, 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. rwsoc 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 rwsoc. All government healthcare institutions and pharmacists are given the list of essential drugs. Therefore, local health officials can request the committee to modify the list in accordance with their local needs. The drugs allocated to rwsoc are limited to 54 essential drugs. rwsoc 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 centres 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 ssoc (2005) and ssoc (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 interaction. Additionally, assessment of the public sector underscores 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; coe 2005). The recent plan documents have acknowledged these as constraints on the quality of care provided by the public sector (ssoc 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 ssoc, "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 ssoc 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 ssc (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 areas (Das and Hammer 2007). Informal practitioners adopt irrational practices in prescribing medicines for the treatment of communicable diseases like malaria, diarrhoea, tuberculosis and fever (Banerjee et al 2004; Upadekar et al 2001; Kumar 2005). Such practices are also evident in infertility care services and childbirth (Usha 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 (Jeffrey et al 2007). These practices are not only inappropriate, but dangerous for maternal health as it results in serious postpartum complications and related mortalities.

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 patient's ability to pay (Muralidharan 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 x-ray machine; 5% a steriliser and 5% an oxygen cylinder (Nandaj and Duggal 1997). Yet another study found that caesarean sections were performed three times more in private hospitals than public ones (Hosain 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 (Nandaj and Duggal 1997). A consistently 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 absentee 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 (Chandrasekhar 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 (Shalibhai 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-entrenched 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; Bhat 1998, 2002). With liberalisation and increase in public subsidies to the private sector in 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

