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Declining Free Healthcare and Rising Treatment Costs in India: An Analysis of National Sample Surveys, 1986-2004

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Abstract

This paper focuses on the trends in health seeking behaviour of people and the cost of treatment by examining the National Sample Survey data pertaining to three rounds -1986-87, 1995-96 and 2004. With variation across states, it is found that treatment seeking from public providers has declined and preference for private providers increased over the period. Although overall health seeking behaviour has improved for males and females, a significant percentage of people, more in rural than in urban areas, do not seek treatment due to lack of accessibility and a perception that illness is not serious enough to require treatment. Lack of affordability is an important reason for not seeking treatment in rural areas. While the health care cost has increased over time, the gap between public and private costs has reduced owing perhaps to the increased cost of treatment in public health facilities following the levying of users fees and restrictions on distribution of free medicine. Practically all the states reported decline in availability of free health care, both outpatient and inpatient. In view of the limitations of the state in providing health care services, particularly, in rural and remote areas, and the growing preference of consumers for private health providers, the paper argues for the promotion of innovative public-private partnership in the health sector. As the effectiveness of public spending depends on the choice of health interventions, target population and technical efficiency, partnering with private health providers could reduce the health inequalities in the country.

Keywords : Healthcare system, out-of-pocket expenditure, health seeking behaviour, cost of treatment, free healthcare, India, National Sample Survey

JEL Codes : I10, I18 and I19

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1. Introduction

Health care in India is provided by both public and private sector. The country's public spending on health at 0.95 of the gross domestic product (GDP) in 2005 is the lowest in comparison with China and Sri Lanka who spent 1.82 per cent and 1.89 per cent respectively of their GDPs (Shivakumar, et al., 2011). The share of private sector in total health expenditure was the highest with 78.05 per cent, and the external flows contributed 2.28 per cent. Among all the sources, households contributed a lion's share - 71.13 per cent – to total health expenditure. Such high proportion of household expenditure on health naturally puts undue burden on poor in India, where 27.5 per cent of people (as per the 2004-05 estimate) live below the poverty line.

About 94 percent of the total private health expenditure in India is out of pocket expenditure.[1] The burden of out of pocket expenditure falls on a quarter or a third of the households with incomes below the poverty line (Deolalikar et al., 2008). Methodological differences apart, several scholars have shown that out of pocket health expenditure is responsible for making people vulnerable to poverty (Gumber, 2000; World Bank, 2001: van Doorslaer et al., 2006; Sakthivel, 2009; Berman et al., 2010). It may be noted that private health expenditure is higher than public expenditure across states

At the time of independence, the Bhore Committee (1946) had recommended that comprehensive health care should be universally accessed by all regardless of their ability to pay. Successive policy documents have emphasized on

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[1] As cited in Berman et al. (2010), Table 1.

promoting health for all. However, the economic reforms of the 1990s introduced fiscal discipline in state expenditures which got reflected in the reduction in non-salary components of the social sector. It has been demonstrated that the fiscal reforms of the 1990s have taken a toll on the social expenditures of the states which has had an impact on health and education expenditure (Sen, 2002; Dev, 2007; Deolalikar et al., 2008). Particularly in health, this has resulted in increasing the cost of health care with a range of impacts on the poor like (1) reduction in the consumption on other items including food; (2) increased indebtedness; (3) growing untreated illness; and (4) gender bias in health seeking behaviour (Sen, 2003).

Further, there are differences in the health outcomes of different states. For instance, Bihar, Rajasthan, Madhya Pradesh, Uttar Pradesh and Orissa, which constitute 45 per cent of India's population, have high incidence of infant and child mortality and child malnutrition. In other states such as Kerala, Tamil Nadu and Gujarat, non communicable diseases are fast replacing the communicable diseases, while malnutrition is the leading cause of child morbidity and mortality (Deolalikar et al., 2008). Though public health system has several draw backs in India, it has been evident from the previous National Sample Survey Organisation (NSSO) Rounds that public health services are the preferred option, particularly, for inpatient care (Gumber 2002). Moreover, health outcomes, especially, infant mortality, respond more to public health and local clinical interventions than to hospital care (Deolalikar et al., 2008). Therefore, it is of immense interest for public policy to see how the states have performed before and after the introduction of fiscal reforms which would be useful for any policy suggestions.

In this paper, we compare the health and morbidity scenarios prevalent in India at three time points using the NSSO surveys conducted during 1986-87, 1995-96 and 2004 and try to discern the trends in the use of health care and treatment costs. These three Rounds cover three important periods of growth - the liberalization period of the 1980s, the period of fiscal contraction in the 1990s that saw the decline in social spending (Bhat et al., 2006, Sakthivel, 2009) and the phase of globalization. We will also examine whether the states have recovered from the fiscal shock and restored their social spending on health, particularly. We have considered 17 major states of India and the all India averages presented include all the states and union territories in India. A few bifurcations of states have taken place since November 2000; hence in order to compare between NSSO Rounds we have added Chhattisgarh

with Madhya Pradesh, Uttaranchal with Uttar Pradesh and Jharkhand with Bihar. Further, in order to compare the increase in the cost of treatment in real terms, we have deflated the cost of treatment by wholesale price index for pharmaceutical products at 1993-94 prices.

This paper focuses primarily focus on morbidity and disease prevalence and their treatment, the utilisation of health services and cost of health care across rural and urban areas of major states in India. Although the Ministry of Health and Family Welfare has provided a consolidated report of these three rounds (Government of India, 2007) neither analyses nor systematic inferences are drawn from the data.

The paper is structured in four sections, including introduction. In Section II, a brief health scenario in India and the expenditure on health by different states are presented. Section III examines the health care use pattern and associated cost of treatment for inpatient and outpatient care. The last section presents the conclusions.

2. Health Scenario in India

With the increasing attention towards achieving better health, India has achieved significant health improvement in terms of higher life expectancy and lower level of mortality over the last 50 years. According to health indicators compiled by Government of India (Central Bureau of Health Intelligence, 2006; Registrar General, 2006a) the crude death rate declined from 25 per 1000 population in 1951 to 8 in 2001 and the life expectancy at birth rose from 36 years in 1951 to 62.5 years in 2002. Other health indicators like infant mortality rate, maternal mortality rate also have declined over the period as a cumulative impact of various measures introduced in previous Five Year Plans. The infant mortality rate has been halved from 120 per 1,000 live births in the 1970s to 60 in 2003. The maternal mortality ratio is estimated to have declined from 400 maternal deaths per 100,000 live births in 1997-98 to 300 in 2001-03 (Registrar General 2006b). In spite of these improved health outcomes, substantial inequities in the health outcomes prevail among the states (Balarajan et al., 2011).

However, India's achievement has been slow when compared to other Asian countries like China, Indonesia, Thailand, Malaysia, the Republic of Korea, and Sri Lanka. Also the country is faced with new challenges. The main

challenge is the ongoing epidemiological transition and the rapidly growing burden of disease. The burden of chronic diseases accounts for 53 per cent of deaths (44 per cent of disability adjusted life years) while the share of communicable diseases, maternal and peri-natal disorders, and nutritional deficiencies account for 36 (42 per cent of disability adjusted life years) (Balarajan et al., 2011). As per the 2006 NSSO report, the morbidity rate, a state of illness, has increased from 55/1000 in 1995-96 to 91/1000 in 2004. More importantly, there has been a complex change in the pattern of disease occurrence. Epidemiological transition entails substitution of chronic degenerative non-communicable diseases for communicable diseases as the primary causes of morbidity and mortality. Until the late 1970s, India had higher level of mortality and majority of deaths were from infectious, parasitic and respiratory diseases (Sen Gupta and Kapoor, 1970). But the recent picture shows that India has undergone changes with respect to causes of deaths and rate of mortality. According to the Registrar General of India report (1998) non-communicable diseases and injuries are now the leading causes of death surpassing a considerable margin of deaths attributable to communicable diseases malaria, tuberculosis, diarrhoea and, HIV/AIDS. Studies carried out in states like Andhra Pradesh (Joshi et al. 2006) and Tamil Nadu (Gajalakshmi and Peto, 2004) have produced similar evidence. Some of the high prevalent diseases at the year 2005 and the projected cases for the year 2015 are presented in Table 1.

In view of the prevailing diseases, it is essential that the government health expenditure in India increases considerably. There is a clear demarcation between central and state provision and financing of various health services. According to the National Health Accounts 2005, the centre accounted for 19.67 per cent of health expenditure, while the states spent 73.53 per cent. Both curative health care provision and financing are considered to be a state subject. State fully finances hospital services, primary health care facilities and Employees' State Insurance Scheme (ESIS). Medical education and family welfare programmes are fully financed by the central government. Most of the national disease control programmes are funded by centre and states on a 50:50 sharing basis. However, in terms of total expenditure on these programmes state's contribution turns out to be about three-fourths, i.e., only basic inputs are shared equally. The state has to bear all the administrative cost including salaries of the staff. The centre and states share capital investment equally. Out of the total expenditure on medical education and research, the central government's share is little over 40 per cent. Thus, by

and large, the states fully finance all the curative care services. It implies that the economic conditions and financial and human resources at the state level have direct bearing on the health outcomes.

As shown in Table 2, the per capita public expenditure ranged from Rs.93 in the case of Bihar to Rs.630 in the case of Himachal Pradesh. Per capita private expenditure was the highest in Kerala with Rs.2663. However, there appears to be no fixed pattern of public health spending between the developed and least developed states. Bihar spends 1.12 per cent of its Gross State Domestic Product (GSDP) on health, while Tamil Nadu spends 0.71 and Haryana just 0.49 per cent. Again if we look at the morbidity pattern of the states during 2004, we find that Kerala, Punjab, West Bengal and Maharashtra have high morbidity, while poorer states Jharkhand, Bihar, Uttaranchal and Rajasthan have relatively low morbidity rates (NSS, 60th Round).

Against this broad background, we will analyse in the following section the pattern of health care use across the 17 major states.

3. Pattern of Health Care Use

The percentage of illnesses treated based on medical advice is more an indicator of the health seeking behaviour of consumers than of morbidity alone. The data presented in Table 3 on the share of treated illnesses by gender brings out the inequities in the health seeking behaviour in rural and urban areas. It reveals that at the all India level, the share of treated illnesses for both males and females has remained almost the same for rural and urban areas in 2004 as compared to 1986-87. But within the states, there are wide variations indicating both positive and negative trends. On the positive side, in both rural and urban areas of Andhra Pradesh, Assam, Haryana and Maharashtra, health seeking behaviour of both males and females has improved between 1986-87 and 2004. In certain other states like Himachal Pradesh, Madhya Pradesh, Orissa, Rajasthan and Tamil Nadu, this improvement is noticed only in rural areas. In comparison with rural areas, health seeking behaviour in urban areas for both the sexes has either declined or almost remained the same between 1986-87 and 2004 for all states except for Andhra Pradesh, Assam, Haryana and Maharashtra.

At the all India level, there is a marginal decline in the health seeking behaviour in males in rural and urban areas in 2004 compared to 1986-87. However,

variations exist among different states. In Andhra Pradesh, Rajasthan, and Tamil Nadu there has been continuous increase in the share of treated illness of males in rural areas. In most of the other states, there was a decline in this share between 1986-87 and 1995-96, followed by an increase in 2004. In contrast, in both Kerala and Karnataka there was a decline in this share through the three points. In Gujarat and Uttar Pradesh a steep decline is observed in the share of treated illness between 1995-96 and 2004. Over this period the share of treated illness among males in both rural and urban areas registered a steep in the case of Assam.

The health seeking behaviour of females in both rural and urban India marginally increased in 2004 as compared to 1986-87. Among the states, Andhra Pradesh and Madhya Pradesh stand apart as the share of females in the treated illnesses has continued to increase across the three time points in both rural and urban areas. In Assam, while the share of untreated illness among the females increased steeply during the 1990s, the trend has reversed in 2004 in both rural and urban areas. Such a trend is not evident in other states.

Even after the diagnosis of the illness, medical assistance is not sought by all which could be due to various socio-economic reasons. The NSS surveys had sought responses on lack of access due to: (a) no nearby medical facility; (b) lack of faith; (c) long waiting; (d) financial reasons; (e) ailment non considered serious; and (f) all other reasons. At the all India level, in both rural and urban areas, 13 and 1.5 per cent of responses respectively related to lack of medical facility as the reason for non treatment in 2004 (Table 4). It may be a matter of concern for policy makers to note the increasing percentage since 1986 of non-treatment due to lack of medical facility, particularly, in rural areas. This indicates that a certain percentage of population is excluded from access to basic primary health care. The other concern with respect to policy is the declining share since 1986-87 of respondents in both rural and urban areas, who consider ailments not to be serious enough to seek medical help. This is an indicator of the rising acute and chronic morbidity scenario in the country.

Further, a widening of inequality in access to health care is indicated by the increase in the percentage of rural and urban respondents who cited the lack of finance as the reason for not accessing medical care. It has been observed that poor are most likely to report financial costs as reasons for foregoing care

when there is an illness. This tendency has been intensified over time in both rural and urban areas (Balarajan et al, 2011). An earlier study reported that nearly half of the people in the bottom expenditure quintile forego medical treatment for financial reasons (Gumber, 1997). As for other reasons, there has been a rise in the share of rural respondents who cited lack of faith in medical treatment as a reason for non-treatment. This could be caused by previous experiences of patients wherein the treatment did not yield any positive results. It may be noted that lack of availability of medical equipment is a contributing factor to lower diagnostic aspect of care in government facilities (Narang, 2011).[2]

At the state level, the number of respondents reporting lack of access to medical facility has increased in Andhra Pradesh, Assam, Bihar, Himachal Pradesh, Tamil Nadu, Uttar Pradesh and West Bengal in 2004. On the other hand, in states like Gujarat, Haryana, Jammu and Kashmir, Karnataka, Kerala, Madhya Pradesh, Orissa, Punjab, Rajasthan and Maharashtra this percentage had increased between 1986-87 and 1995-96 and came down in 2004 perhaps indicating improved availability of health care facilities. Interestingly, only in the urban areas of Andhra Pradesh and Karnataka, percentage reporting lack of facility has increased in 2004. Health inequalities due to financial reasons had increased in both rural and urban areas across the three time period in Assam, Gujarat, Jammu and Kashmir, Karnataka and Tamil Nadu.

Except for Bihar, where the percentage of respondents reporting ailment not serious that increased marginally from 36.8 per cent in 1995-96 to 37.6 in 2004, in all other states, it has declined indicating the increasing health vulnerability of people in rural areas. Further, as compared to the rural areas, urban areas present an interesting picture. For Andhra Pradesh, Assam, Bihar, Gujarat, Haryana, Kerala, Maharashtra and Orissa, the percentage of urban respondents reporting ailment considered not serious increased in 2004 as compared to 1995-96.

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[2] In Tamil Nadu, a study on primary health care (PHC) centres showed that in the pre-Tamil Nadu Medical Services Corporation days, when the government facility used to repeatedly dispense similar coloured pills for different ailments, patients showed their disapproval by throwing the medicine within the compound of the PHC itself (Lalitha, 2006).

3.1 Use of Public Health Services

Public health services play an important role in the health of poor. Unless people have an alternative, they may be compelled to pay high prices or be forced to opt out of health services altogether (Sen et al., 2002). In a country where the private health expenditure averages above 70 per cent, it is important to understand the share of public health providers in providing inpatient and outpatient care. But, the share of private sector in health care is actively encouraged by the government through the provision of tax exemptions and land for hospitals at a subsidized rate (*ibid*).

Share of public health providers in treated illness with respect to inpatient care was about 60 per cent each in rural and urban areas in 1986. This had declined to 41.7 per cent and 38.2 per cent respectively in 2004 (Table 5a). Among the states, the share of public providers in inpatient care for rural people was the lowest in Bihar (21.7 per cent) and the highest in Jammu and Kashmir (91 per cent). There was an overall decline in public inpatient care across the three time points. It was steeper for the period 1986-96 compared to 1996-2004. Further, though all the states have registered a decline in the public provision of health for both rural and urban population, Andhra Pradesh, Assam and Madhya Pradesh have done better in 2004 compared to 1995-96, at least for the rural people. In the provision of public health services in urban areas, Tamil Nadu is the only state which showed perceptible improvement, though Andhra Pradesh too registered a very marginal increase.

As compared to inpatient care, the share of public providers in the provision of outpatient care is much lower for both rural and urban population (Table 5b). As is evident from the data, the share of public providers in the outpatient care for rural population in Andhra Pradesh, Himachal Pradesh, Kerala, Orissa, Punjab, Uttar Pradesh and West Bengal in 2004 was better than the share in 1986-87, while Assam, Karnataka and Maharashtra have done better in 2004 as compared to 1995. Hence, we find that the overall share of public providers in outpatient care, though declined in 1995, has revived in 2004 particularly in rural areas. Nevertheless, it leaves a huge gap of 76 per cent to be filled by the private providers.

At the all India level, the decline in the share of public providers in the outpatient care treatment has not been as steep as the inpatient services particularly in urban areas. The share declined from the level of 27 per cent

in 1986 to 20 per cent in 1995 and was maintained at that level in 2004. Implicitly 80 per cent of the urban outpatient care is catered to by the private providers, which obviously would increase the cost of health care. The share of public providers in outpatient care has increased in 2004 in comparison to 1986 only in the states of Himachal Pradesh, Jammu and Kashmir, Orissa and Punjab. However, compared to 1995-96, a few more states like Andhra Pradesh, Assam, Haryana, Madhya Pradesh, Rajasthan, Uttar Pradesh and West Bengal have done better in 2004.

3.2 Provision of Free Health Services by the Public Sector

The share of private sector agencies in the provision of free health services for both inpatient and outpatient care is negligible. Therefore, those who avail of government facility also have provision to receive free treatment. To capture this aspect, Table 6a provides information on percentage of patients who received free hospital beds (proxy for free inpatient care) and free medicine (proxy for free outpatient care). At the all India level, the percentage of rural and urban patients receiving free beds has declined in 2004 (37 and 32) compared to 1986-87 (60.7 and 55.2). The decline is much steeper from 1986-87 to 1995 (41.6) as compared to the later period. While almost all the states have shown a steep decline between 1986 and 1995 in the provision of free beds, the exceptions are Andhra Pradesh, Madhya Pradesh, Bihar, Gujarat and Karnataka, which appear to have revived in 2004 as compared to 1995 situation. Himachal Pradesh, Haryana and Karnataka are the only three states which have improved the availability of free beds in urban areas in 2004.

With respect to outpatient care, at the all India level, free medicines were available to less than 20 per cent of patients in 1986 in rural and urban areas indicating that the scenario of availability of free medicines is worse than the availability of free beds (Table 6b). This has further reduced for both rural and urban patients, and, in 2004 the availability of free medicines for rural and urban patients was restricted to just 6.4 per cent and 6.8 per cent respectively. This is a huge burden on the people as is evident from the share of medicines in the inpatient and outpatient care, which is the highest as compared to other components. As analysed by Berman et al. (2010) the out of pocket expenditure to meet the health costs, particularly, arising from the non-availability of free medicines would impoverish the poor further. We also see that states which have shown improvement in rural services are not the same which have improved the urban services marking the mismatch.

The National Health Accounts 2004-05 notes with concern that "among various components highest expenditure was incurred on medicine both in public and private health care institutions and this varied within a range of 38-66 percent. In public health care institutions around 66 per cent of the expenditure has been incurred on medicine in rural areas while it was slightly lower at the urban areas at 62 per cent (Table 7). Non availability of drugs in the inpatient has pushed up the expenditure on medicines in the public sector" (p.31)

At the state level, Kerala[3], Rajasthan, Punjab, Uttar Pradesh, West Bengal are the few states which have tried to improve the free medicines availability in 2004 as compared to 1995 at least in the rural areas. While Gujarat, Haryana, Himachal Pradesh and Uttar Pradesh have tried to improve the free medicinal availability in urban areas in 2004 as compared to 1995, only Himachal Pradesh has reached the level of 1986. Even Tamil Nadu whose drug procurement and supply model is hailed as the model for other states to follow (Lalitha 2009) has registered a decline in 2004.

4. Cost and Burden of Treatment

Undoubtedly, price is the most important consideration in choosing the public over the private facility, especially, for the treatment of chronic and catastrophic illnesses. We find that the ratio of the cost of private and public inpatient treatment in rural and urban India was 1.03 and 1 respectively in 2004 (Table 8a). This implies that there is no difference in the cost of inpatient treatment between public and private hospitals. Interestingly in comparison with both 1986-87 and 1995-96 ratios, in both rural and urban areas we observe much higher inpatient treatment costs in private hospitals than in public hospitals. Alternatively, it implies that the cost of treatment between private and public hospitals is narrowing in the 2000s. This could have been possible due to the following reasons: (1) severe competition within the private sector has resulted in reduction in the cost of services in the private sector; (2) public sector has started levying user charges in several states which is increasing the cost of treatment in the public sector almost equivalent to private sector; and (3) user fees are charged for the services provided by the private sector in the scheme of public-private partnership.

[3] Kerala based on the Tamil Nadu model has revised its drug procurement and supply pattern since 2007-08.

User charges were introduced in different states at different points of time. Karnataka was the first to introduce user charges on hospital services in 1996, Orissa in 1997, Madhya Pradesh in 1998, Uttar Pradesh in 2000 and West Bengal and Rajasthan in 2001 (Shariff and Mondal, 2009).

The private cost of inpatient treatment for rural patients is higher than the national average in all the states except Haryana. Bihar and Haryana are the only two states which are below the national average in terms of inpatient treatment costs for urban patients.

As compared to this, the cost ratio between private and public providers for outpatient care for rural patients at the national level has increased from 0.7 to 1.34 during 1986-2004 (1.44 in 1995) (Table 8b). For urban patients the ratio has increased consistently from 0.9 in 1986 to 1.2 and 1.4 in 1995 and 2004, respectively. Overall this implies that private providers have become costlier over time. Though, there is no clear trend emerging between the rural and urban areas for different states, we observe that for both rural and urban patients, the outpatient cost of private provider is lower than the national average in Bihar, Rajasthan, Madhya Pradesh (only in rural) and Orissa. While we can say it is partly reflecting on the general health seeking behaviour of people, it can also be said that though there is user fees charged in the public hospitals in Orissa, Rajasthan and Madhya Pradesh, perhaps the private sector charges have not risen as in other states like Tamil Nadu or Karnataka. It could also be due to the better performance of the public sector in those states. "A well functioning public health care system not only assures effective services to those at the lower end of the socio-economic hierarchy but can also set a ceiling for the prices and a norm for the quality in the private sector. It can therefore be a major anchor for equity overall in the health service system. Inter-state comparisons within India appear to confirm this as states with better public health services have lower prices in the private sector" (cited in Sen et al., 2002).

Further, though Sen et al. (2002) identified an inverse relationship between private sector cost and private sector's share in the treatment, we do not find such a relationship in 2004. For instance, though in Tamil Nadu, the cost of inpatient treatment in private hospitals was 13 times higher than those in the public hospitals for rural patients, the public providers accounted only for 40 per cent of the share in inpatient treatment.

4.1 Cost of Treatment

The average expenditure on treatment (such as fees, medicines, clinical and diagnostic tests, surgery, and hospital bed charges in real terms) per hospitalisation episode in 2004 was Rs. 3408 for rural and Rs. 5272 for urban inpatients for the country as a whole (Table 9a). As expected, the cost of treatment was higher for urban than rural patients due to cost of living and the nature of care sought. The inpatient treatment cost in rural patients was the least in Assam and the highest in Punjab. Andhra Pradesh is the only state where the inpatient treatment costs have reduced particularly for the rural population. For urban patients, Kerala provides the cheapest inpatient care, while Punjab it is the costliest.

It is evident that the cost of care has increased drastically for all the states over the period 1986-87 to 2004, depicting in the range of 4.6 to 15.6 per cent annual growth rate. At the all India level, rural inpatient costs have increased at the rate of 6.5 per cent per annum. We find that except for Bihar, Orissa, Haryana and Maharashtra, in all other states, the costs of inpatient care for rural population has risen above the national average, with Tamil Nadu registering the highest at 15.7 per cent. However, if we compare the annual change in the costs since 1995-96, then the national average itself drops to 3.6 per cent. Here again we find that with the exception of Andhra Pradesh, where the costs of treatment have declined by 4.2 per cent per annum, Bihar and Kerala, are the only states where the increase in the costs is below the national average.

While urban inpatient costs have increased more than the rural inpatient costs at 7.9 per cent per annum during 1986-2004, the costs continue to grow at 7.7 per cent during the sub period of 1995-2004. Further inter-state variations are wider for urban than the rural inpatient costs, as we find the costs to have increased annually from 3.6 per cent in the case of Uttar Pradesh to 27 per cent in the case of Haryana during 1986-2004. During the sub-period 1995-2004, the annual increase in the costs for all the states has been less than that of 1986-2004 periods.

At all India level, cost of outpatient treatment for rural and urban population was Rs. 182 and Rs.180 (real terms) respectively in 2004 (Table 9b). We observe that for both rural and urban population the average cost has increased compared to the previous years. For the different states, the cost ranged from

Rs.110 to Rs. 245 for both rural and urban patients. For rural population, we find that in Bihar, Himachal Pradesh, Jammu and Kashmir and Madhya Pradesh, the outpatient care costs have declined in 2004 in comparison with 1986 costs in real terms (which is also reflected in the negative annual change in the cost). While in Maharashtra, the costs have remained at the same level, an increase is observed with reference to other states. For urban population Himachal Pradesh, Maharashtra, Madhya Pradesh, Rajasthan and Uttar Pradesh have shown a decline in 2004 compared to 1986-87 (which again reflects in the negative growth rate in the long term). We, however, are not able to reflect on the steeper decline in the cost during the sub period in the case of Haryana and Madhya Pradesh.

The long term annual change in the cost of rural and urban outpatient care has been less than the annual change observed in the sub period at the all India level. Particularly for the rural population the annual increase in cost in the sub period has almost doubled. Karnataka has registered the highest annual change both during the long term as well as in the sub period, followed by Tamil Nadu. The annual increase in cost of urban outpatient care in the long term is the highest in Tamil Nadu, if we leave out Assam which shows an exceptionally higher increase because of the lowest cost registered in 1986-87.

5. Conclusions

In this paper, we have detailed the trends in health seeking behaviour of people and choosing between government and private sources, reasons for not accessing health care and the cost of treatment by examining three Rounds of NSS data on health care use and morbidity pattern. Our overall observation is that the public health providers played a major role in meeting health care needs in India in 1986-87. The fiscal reforms had affected the health spending by the states over time. Though several states have attempted to restore the public provision of health care by 2004, it would take some more years to catch-up with the levels achieved during the 1986-87. We observe that while a majority of men and women sought treatment for their illness, the percentage of people reporting lack of access to medical facility is more for rural than for urban populations indicating the urban centric position of health providers and the public health care needs to fill in this gap. At the same time the percentage of people reporting illness not serious enough requiring treatment has declined over the survey periods, indicating a better health seeking

behaviour of people in both rural and urban areas. It also reflects the increasing level of morbidity in the country. Better public health provision would bring down considerably the loss of number of working hours and days due to illness and thereby increase the income/livelihood opportunities and reduce vulnerability.

Over the years the government has also promoted private health providers through a variety of schemes to meet the growing demand. However the cost of private health provision has remained high. We do observe a progressive reduction in the gap between public and private providers with respect to the cost of providing treatment indicating the rising cost of treatment in public health facility. This might be due to the provision of care to critical patients which the private sector hesitate to handle.

The disturbing trend of steep reduction in the percentage of people getting free medicines needs to be corrected. In Tamil Nadu, the Tamil Nadu Medical Services Corporation is in charge of the procurement of quality medicines and supplying to different levels of health care, which has significantly improved the availability of medicines in government health care since 1995. The limited budgets of the state governments can be effectively utilised if the state governments strictly follow an essential drug list and purchase the generic drugs through pooled procurement system. It is suggested here that even if the government is not able to provide free medicines to all the patients, it should at least streamline the availability of the essential generic medicines. There are a few initiatives already making a difference in the geographical areas where they are functioning. For instance, Bihar, which is one of the less developed states of India, has adopted subsidised provision of generic drugs. "Every medical college, district hospital and the primary health centre in the state has a shop where generic medicines at less than 50 per cent of the maximum retail price are sold and yet Bihar government is earning 45 per cent revenue on the project" (GOI, 2010).

Since the mid 2000s the central government has taken innovative initiatives to improve public health care in India. For instance, with an objective of raising the public health spending to achieve universal health care, the central government has launched the National Rural Health Mission in 2005 with a prime focus on Madhya Pradesh, Rajasthan and Uttar Pradesh. The government has initiated an insurance scheme - the Rashtriya Swasthya Bima Yojana – in 2007 as protecting the population from financial risks due to

health care costs has become an important objective of health systems. Several state governments like Karnataka, Tamil Nadu and Rajasthan also launched special medical insurance scheme to protect the population from adverse financial risks arising due to catastrophic diseases.

Realizing the limitations of the state provision of health, particularly, in rural and remote areas and the growing preference of the consumers for private health providers, many states have started adopting innovative public-private partnership for various health services with a view of directing the growth of private sector to contribute to public goals (Baru and Nundy, 2008; Bhat, 2000; Bhat and Jain, 2006). As effectiveness of public spending also depends on the choice of health interventions, target population and technical efficiency (Deolalikar et al., 2008) partnering with private health providers could work towards reducing the health inequalities in the country.

Table 1: Disease Burden Estimation

Diseases	Available estimate (in lakh)	Projected estimate-2015 (in lakh)
I. Communicable Diseases, Maternal & Perinatal Conditions		
Tuberculosis	85 (2000)	-
HIV/AIDS	51(2004)	190
Diarrhoea	760 (2005)	880
Malaria and other vector borne disease	20.37(2004)	-
IMR	63(2002)	53.14
Maternal mortality	440 (2005)	-
II. Non-communicable disease		
Cancer	8.07(2004)	9.91
Diabetes	310 (2005)	460
Mental health problem	650 (2005)	800
Cardiovascular diseases	290(2000)	640
Asthma	405.20(2001)	596.36
III. Other non-communicable diseases		
Injuries	9.8	10.96

Source: *Report of the National Commission on Macroeconomics and Health, 2005*, Ministry of Health and Family Welfare, Government of India, 2005
Note: Year of estimation is given in brackets.

Table 2: Public and Private Health Expenditure in India, 2004-05

Major States	Expenditure (Rs. million)			Per capita Expenditure (in Rs.)		Share (%) of public expenditure in	
	Public	Private	Total	Public	Private	GSDP	State Expenditure
Andhra Pradesh	15,167	69,134	84,301	191	870	0.72	3.22
Assam	4,546	17,218	21,764	162	612	0.86	3.08
Bihar	8,264	37,256	45,520	93	420	1.12	4.12
Gujarat	10,674	40,606	51,280	198	755	0.57	3.06
Haryana	4,609	19,866	24,475	203	875	0.49	3.19
Himachal Pradesh	4,004	5,598	9,602	630	881	1.74	4.98
Karnataka	12,901	33,042	45,943	233	597	0.87	3.77
Kerala	9,431	87,545	96,976	287	2,663	0.88	4.65
Madhya Pradesh	9,376	41,694	51,070	145	644	0.87	3.19
Maharashtra	20,901	103,403	124,304	204	1,008	0.55	2.88
Orissa	7,011	27,553	34,564	183	719	0.98	4.41
Punjab	6,322	28,456	34,778	247	1,112	0.65	3.01
Rajasthan	11,283	34,869	46,152	186	575	0.98	3.90
Tamil Nadu	14,334	66,562	80,896	223	1,033	0.71	3.43
Uttar Pradesh	22,805	151,006	173,811	128	846	0.92	3.86
West Bengal	14,486	91,102	105,588	173	1,086	0.69	4.32

Source: Table 1.3, *National Health Accounts 2004-05*, Government of India.

Table 3: Share of Treated Illnesses (as Percentage of all Illnesses not Requiring Hospitalisation) by Gender, 1986-87 to 2004

States	males rural			Males urban			females rural			Females urban			both sexes rural			both sexes urban		
	1986-87	1995-96	2004	1986-87	1995-96	2004	1986-87	1995-96	2004	1986-87	1995-96	2004	1986-87	1995-96	2004	1986-87	1995-96	2004
Andhra Pradesh	63.2	76.9	79.7	77.3	87.2	88.8	56.3	71.9	73.2	66.2	82.8	86.8	59.7	74.5	76.2	71.4	85.0	87.7
Assam	77.1	56.2	76.9	90.0	68.5	97.3	76.3	55.7	81.2	84.8	59.6	91.9	76.7	56.0	79.0	87.3	63.6	94.3
Bihar	85.2	78.6	80.3	92.7	84.2	87.1	84.1	77.6	80.9	91.2	84.8	88.4	84.7	78.1	80.6	91.5	84.5	87.7
Gujarat	89.1	94.7	80.4	94.3	95.8	92.0	87.9	89.4	85.0	95.2	97.1	93.9	88.5	92.1	82.7	94.7	96.5	92.9
Haryana	90.3	98.7	94.6	91.0	97.8	94.7	90.7	95.4	92.5	91.0	98.8	97.8	90.5	97.0	93.5	91.0	98.4	95.0
Himachal Pradesh	94.8	89.0	93.7	100	96.9	100	98.1	86.2	95.6	100	97.6	91.5	96.5	87.5	94.0	100	97.2	92.0
Jammu & Kashmir	90.5	94.7	85.7	98.3	96.8	93.7	85.1	92.7	78.1	98.1	98.6	94.7	87.9	93.7	82.0	98.2	97.6	94.2
Karnataka	88.5	83.9	76.8	93.4	89.6	84.8	87.3	72.0	77.2	96.7	93.2	87.1	87.9	77.5	77.0	95.1	91.4	86.0
Kerala	93.4	87.9	83.0	91.5	89.6	88.9	91.2	88.6	86.3	89.4	88.8	90.7	92.2	88.3	87.0	90.4	89.2	89.9
Madhya Pradesh	74.5	85.1	85.5	88.6	94.8	96.7	71.8	82.4	89.1	86.3	91.5	94.1	80.0	83.7	87.4	95.4	93.3	95.3
Maharashtra	79.8	90.4	88.6	95.2	92.2	91.3	80.2	86.8	87.7	95.5	92.4	92.6	73.3	88.6	88.1	87.4	92.3	91.9
Orissa	70.7	69.3	75.7	88.4	84.3	86.8	68.8	66.1	76.4	89.5	88.6	86.3	69.7	67.7	76.0	88.9	86.6	86.6
Punjab	94.6	99.4	94.8	97.4	96.5	96.8	93.0	98.6	93.2	95.3	96.5	96.4	93.8	99.0	93.9	96.4	96.5	96.6
Rajasthan	84.5	86.0	88.6	90.0	80.6	88.8	81.7	95.1	91.7	90.3	88.5	90.0	83.2	89.8	90.2	90.2	89.6	89.4
Tamil Nadu	75.2	75.9	77.6	89.2	90.9	89.8	75.7	79.2	78.6	88.4	92.8	83.9	75.3	77.6	78.1	88.8	92/0	86.5
Uttar Pradesh	89.0	91.3	76.7	87.9	94.7	87.6	85.5	89.9	76.0	87.7	92.6	88.0	87.4	90.6	76.4	87.8	93.5	87.8
West Bengal	84.4	79.4	83.4	90.7	91.0	84.8	81.5	80.8	77.1	85.2	88.8	81.0	83.0	80.1	80.3	87.9	89.9	82.8
All-India	82.8	83.8	81.9	90.2	91.0	89.6	80.2	81.6	81.7	88.1	90.3	88.7	81.5	82.7	82.0	89.1	90.7	89.1

Source: NSSO 42nd, 52nd and 60th Rounds, 1992, 1998 and 2006, Government of India.

Table 4: Percentage Distribution of Untreated Ailments by Reason for Non-Treatment, 1986-87 to 2004

State	Survey Year	Rural						Urban					
		No nearby medical facility	Lack of faith	Long waiting	Financial reasons	Ailment not considered serious	Others	No nearby medical facility	Lack of faith	Long waiting	Financial reasons	Ailment not considered serious	Others
Andhra Pradesh	1986-87	0.9	1.1	0.2	10.1	74.4	7.2	0	1.2	0.8	8.0	84.6	5.5
	1995-96	3.2	4.7	0.3	26.2	56.2	7.9	0	10.7	2.1	20.3	54.8	10.7
	2004	8.0	2.2	0	26.6	39.2	23.91	0.6	3.7	0.3	13.0	75.0	7.5
Assam	1986-87	0.5	1.1	1.1	5.3	87.7	4.3	0	0.1	5.7	3.7	82.9	7.7
	1995-96	11.5	4.5	0.9	9.2	58.0	13.0	0.2	8.7	0.3	20.5	58.0	10.9
	2004	14.7	3.9	0	22.2	44.4	14.7	0	0	0	36.1	63.9	0
Bihar	1986-87	1.9	1.3	0.8	18.0	74.7	3.3	0	0.2	0	9.1	86.1	4.5
	1995-96	5.3	1.5	1.9	40.4	36.8	9.6	0	2.9	0.8	24.9	55.4	13.0
	2004	10.6	1.6	0.1	27.2	37.6	22.7	0	0.2	1.5	15.5	71.5	11.3
Gujarat	1986-87	0.3	0.6	9.0	17.4	74.7	6.0	0	5.7	0	13.3	77.2	3.8
	1995-96	23.1	2.7	0	2.8	66.4	5.0	0	5.5	19.2	0	52.4	9.7
	2004	4.1	3.7	2.32	24.3	42.2	23.2	0	2.1	2.0	9.8	55.4	30.7
Haryana	1986-87	0.6	3.6	1	14.1	70.6	10.2	0	6.2	0	7.1	75.1	11.6
	1995-96	9.6	16.6	0	12.9	55.9	5.0	0	0	0	12.9	22.8	64.3
	2004	0	8.7	0	14.1	42.2	34.9	0	0	0	0	29.0	71.0
Himachal Pradesh	1986-87	14.1	4.1	1.1	4.3	70.9	5.5	0	0	0	0	0	0
	1995-96	2.4	7.4	0.6	0.5	52.9	32.3	0	0	0	0	63.2	35.9
	2004	6.2	0	0	21.9	4.6	67.2	0	0	64.0	36.0	0	0
Jammu & Kashmir	1986-87	3.9	8.1	0	67.5	15.2	5.3	0	5.3	0	4.5	90.2	0
	1995-96	14.3	0	4.4	0.3	73.3	7.7	0	0	6.4	13.6	57.2	19.9
	2004	4.4	0	0	44.0	20.0	31.5	0	0	0	2.3	51.5	46.2
Karnataka	1986-87	5.3	3.4	0.2	14.6	67.6	8.9	0.7	1.7	0	11.3	81.6	4.7
	1995-96	7.5	4.8	0	22.0	58.4	5.4	0	1.6	0	11.6	73.7	12.9
	2004	2.9	3.9	0	33.9	29.1	30.2	2.5	4.9	0	31.7	35.4	25.5

Kerala	1986-87	0	1.7	0	14.7	81.0	2.6	0	0.2	0	4.5	88.9	6.4
	1995-96	5.7	1.2	0	12.9	69.8	9.1	1.1	1.3	0	12.4	68.6	14.4
	2004	0.2	1	0.3	24.3	58.4	15.8	0	0.3	1.2	10.6	82.4	5.4
Madhya Pradesh	1986-87	5.4	2.5	Negligible	15.8	73.3	3.0	0.3	2.6	0.4	8.6	88.8	4.3
	1995-96	19.8	2.6	0	21.0	45.4	7.5	10.8	15.3	0	10.4	52.4	10.9
	2004	11.7	0.8	0	22.7	48.6	16.1	0	1.1	2.3	23.3	45.6	27.8
Maharashtra	1986-87	1.6	1.4	0.8	7.2	85.5	3.5	0.5	0.4	2.7	8.2	80.4	7.8
	1995-96	8.2	3.4	0	20.1	63.7	4.2	0	0	0.3	25.1	63.3	11.3
	2004	7.2	2.5	0.7	40.7	36.1	12.9	1.1	2.0	0.3	18.8	69.6	8.3
Orissa	1986-87	6.6	1.2	0	68.6	17.4	6.2	0.9	0	0	12.1	85.5	1.5
	1995-96	19.5	5.1	0.4	23.0	38.3	10.8	0	0	4.0	45.4	35.6	10.0
	2004	13.5	1.2	0	23.8	28.4	33.2	3	7.1	0	42.2	36.5	11.1
Punjab	1986-87	1.3	3.1	0	6.2	82.7	6.7	0	2.0	0	2.1	93.2	2.8
	1995-96	21.3	5.5	0	49.0	7.7	16.5	0	4.5	0	47.3	48.2	0
	2004	1.5	3.7	2.5	41.5	27.8	23.0	0	0	0	49.1	42.2	8.7
Rajasthan	1986-87	8.6	3.2	0.7	69.5	14.7	3.3	0.1	0.6	0.3	11.2	86.4	1.5
	1995-96	7.1	2.2	0	60.3	25.7	4.7	0	1.3	0	4.9	72.2	21.6
	2004	4.1	6.5	1.8	37.1	25.2	25.3	13.1	0	1.3	34.8	35.1	15.8
Tamil Nadu	1986-87	1.6	2.5	1.3	15.1	71.6	8.0	0	0.9	2.5	7.5	79.9	9.2
	1995-96	0.8	4.7	1.1	21.6	66.1	5.6	0	5.1	0	11.7	46.6	36.0
	2004	3.9	2.3	1.8	31.8	52.2	8.1	1.1	4.7	4.4	23.6	45.6	20.6
Uttar Pradesh	1986-87	2.9	2.6	0.1	18.6	73.8	2.0	0.4	0.8	0.9	15.1	75.7	7.2
	1995-96	10.8	4.5	0	22.4	51.0	9.6	0	11.2	1.0	22.5	64.6	0.7
	2004	21.8	5.3	0.8	31.1	31.7	9.3	0	0.9	3.9	31.4	51.5	12.3
West Bengal	1986-87	3.9	2	0	12.1	78.3	3.7	0.1	1.5	2.1	11.8	78.4	6.0
	1995-96	7.9	0.5	0	43.1	34.6	13.2	0	2.0	0.3	19.7	65.9	10.6
	2004	22.7	2.5	3.6	42.3	20.4	8.4	1.6	0.9	2.5	27.8	52.9	14.3
All-India	1986-87	2.9	1.9	0.3	15.3	74.6	5.0	0.1	1.8	1.1	9.6	81.1	6.3
	1995-96	8.8	3.7	0.5	24.2	51.1	9.9	0.8	5.3	1.1	19.8	59.4	12.4
	2004	13.0	4.1	0.8	28.5	35.7	17.9	1.5	3.7	2.0	24.0	50.4	18.4

Source: Same as Table 3.

Table 5a: Share of Public Providers in Treated Illnesses – Inpatient Care , 1986-87 to 2004

State	Inpatient care					
	Rural			Urban		
	1986-87	1995-96	2004	1986-87	1995-96	2004
Andhra Pradesh	30.8	22.2	27.4	41.7	35.4	35.8
Assam	89.8	69.2	75.0	82.4	63.0	55.2
Bihar	50.1	24.1	21.7	46.8	31.9	26.5
Gujarat	56.0	31.4	31.3	61.8	36.3	26.1
Haryana	54.1	30.3	20.6	56.7	37.0	29.0
Himachal Pradesh	88.0	86.5	78.1	78.9	91.3	89.7
Jammu & Kashmir	96.5	97.7	91.2	96.1	95.9	86.4
Karnataka	59.8	45.0	40.0	50.0	29.3	28.9
Kerala	43.6	39.5	35.6	56.3	37.3	34.6
Madhya Pradesh	80.4	40.4	57.2	79.0	54.7	48.7
Maharashtra	45.8	30.9	28.7	49.4	30.7	28.0
Orissa	90.7	84.2	79.1	82.2	77.9	73.1
Punjab	49.2	37.7	29.4	52.0	26.5	26.4
Rajasthan	81.0	63.3	52.1	86.5	72.1	63.7
Tamil Nadu	56.9	40.4	40.8	58.2	34.2	37.2
Uttar Pradesh	58.3	46.1	27.8	61.1	39.0	31.5
West Bengal	91.9	79.9	78.7	75.9	71.3	65.4
All-India	59.7	43.8	41.7	60.3	41.9	38.2

Source: Same as Table 3.

Table 5b: Share of Public Providers in Treated Illnesses – Outpatient Care, 1986-87 to 2004

	Outpatient care					
	Rural			Urban		
States	1986-87	1995-96	2004	1986-87	1995-96	2004
Andhra Pradesh	21.6	22	22.3	22.6	19	20.4
Assam	53.0	29	35.6	29.6	22	29.1
Bihar	16.9	13	7.8	18.0	33	16.9
Gujarat	35.1	25	22.0	19.6	22	18.0
Haryana	16.9	13	12.0	21.7	11	19.9
Himachal Pradesh	60.7	39	68.6	47.7	48	86.1
Jammu & Kashmir	59.8	44	53.8	47.4	28	50.9
Karnataka	36.4	26	34.6	31.3	17	16.7
Kerala	34.0	28	38.0	34.8	28	24.0
Madhya Pradesh	27.1	23	22.7	25.9	19	24.8
Maharashtra	36.5	16	17.4	35.3	17	11.7
Orissa	52.7	38	56.8	47.9	34	58.3
Punjab	13.4	7	17.6	15.6	6	18.9
Rajasthan	56.1	36	45.5	57.5	41	53.9
Tamil Nadu	38.7	25	30.7	35.5	28	22.1
Uttar Pradesh	10.4	8	11.7	17.2	9	15.3
West Bengal	19.6	15	21.1	25.3	19	21.4
All-India	25.6	19	24.1	27.2	20	20.0

Source: Same as Table 3.

Table 6a: Percentage of Patients Receiving Free Hospital Bed – Inpatient Care, 1986-87 to 2004

State	Free hospital bed (Inpatient care)					
	Rural inpatient			Urban inpatient		
	1986-87	1995-96	2004	1986-87	1995-96	2004
Andhra Pradesh	33.3	21.9	31.1	41.3	36.8	33.9
Assam	95.5	76.5	60.2	76.1	58.0	41.3
Bihar	47.7	20.0	22.4	56.5	38.9	30.4
Gujarat	40.0	26.1	27.7	39.4	25.4	18.7
Haryana	54.0	29.6	11.6	53.3	16.7	20.1
Himachal Pradesh	86.5	79.0	74.1	77.3	71.0	80.5
Jammu & Kashmir	93.4	96.8	83.2	91.6	88.1	78.5
Karnataka	58.8	37.8	38.2	36.6	25.3	28.2
Kerala	45.1	37.5	33.6	45.2	31.7	29.5
Madhya Pradesh	77.2	39.2	49.1	73.3	49.1	41.6
Maharashtra	42.8	28.7	22.5	39.7	28.6	20.6
Orissa	88.7	83.1	78.8	88.0	75.2	65.1
Punjab	46.3	26.8	11.5	46.1	18.7	10.7
Rajasthan	81.8	65.8	50.8	84.9	70.5	61.3
Tamil Nadu	59.5	42.9	42.5	57.8	38.9	37.8
Uttar Pradesh	59.1	39.8	16.8	56.1	32.6	21.8
West Bengal	90.4	79.6	71.8	69.4	64.5	51.9
All-India*	60.7	41.6	37.0	55.2	38.2	32.0

Note: * denotes the All-India average based on the weighted average of 17 major states (states are weighted according to their share in the total estimated hospitalised / ill persons for 1986 and 1995. 2004 has considered all the states in the average).
Source: Same as Table 3.

Table 6b: Percentage of Patients Receiving Free Medicines – Outpatient Care, 1986-87 to 2004

States	Rural outpatient			Urban outpatient		
	Free medicines - outpatient care					
	1986-87	1995-96	2004	1986-87	1995-96	2004
Andhra Pradesh	20.8	20.1	10.3	24.2	8.5	6.9
Assam	31.0	12.6	2.7	10.5	6.0	5.6
Bihar	5.2	1.5	0.2	26.6	10.4	3.7
Gujarat	21.5	9.5	8.6	13.9	10.2	11.7
Haryana	8.2	3.7	1.3	12.2	1.7	3.2
Himachal Pradesh	24.1	4.5	3.6	8.8	6.8	9.0
Jammu & Kashmir	20.3	5.1	3.6	12.7	5.2	2.8
Karnataka	26.5	16.3	14.6	25.4	8.2	4.8
Kerala	29.8	9.3	11.1	25.4	8.7	6.6
Madhya Pradesh	24.5	3.3	2.9	17.9	7.8	7.7
Maharashtra	17.0	8.6	6.3	21.9	8.8	4.5
Orissa	25.0	8	7.8	24.6	5.0	5.1
Punjab	6.5	0.6	1.2	7.6	2.3	1.6
Rajasthan	15.6	0.1	3.2	17.5	9.8	7.5
Tamil Nadu	37.3	27.8	25.7	34.3	25.1	20.6
Uttar Pradesh	6.0	1.8	2.2	10.5	4.0	4.5
West Bengal	15.4	3.7	4.0	18.5	8.2	4.9
All-India	17.5*	7.7	6.4	19.7*	9.3	6.8

Source: Same as Table 3.

Table 7: Share of Different Components of Inpatient Expenditure in Public and Private Sector

Type of Hospital	Sector	Doctor's fee	Diagnostic test	Bed etc.	Medicine	Blood etc.	Food	Total
Private	Rural	26	9	17	40	3	5	100
	Urban	27	11	17	38	4	3	100
Public	Rural	4	12	4	66	4	9	100
	Urban	5	15	6	62	5	8	100

Source: Table 4.3, *National Health Accounts 2004-05*, Government of India.

Table 8a: Ratio of Cost of Treatment between Private and Public Provider, 1986-87 to 2004

States	Inpatient Care					
	Rural			Urban		
	1986-87	1995-96	2004-05	1986-87	1995-96	2004-05
Andhra Pradesh	2.2	3.8	2.54	5.2	5.4	9.1
Assam	0.6	1.0	1.89	3.4	3.2	7.5
Bihar	1.3	1.2	1.58	1.6	1.6	0.9
Gujarat	2.3	2.2	2.83	2.9	2.2	2.6
Haryana	1.5	1.3	0.51	1.9	0.6	0.6
Himachal Pradesh	1.8	1.1	2.43	3.0	3.2	3.4
Jammu & Kashmir	2.1	1.0	2.27	5.5	2.6	5.5
Karnataka	2.8	2.3	3.06	3.3	2.9	6.2
Kerala	1.6	1.7	2.12	2.6	1.5	1.9
Madhya Pradesh	1.7	1.6	1.82	2.8	2.3	3.5
Maharashtra	2.9	2.5	3.22	5.1	3.7	3.8
Orissa	2.0	1.5	2.57	0.9	5.5	2.3
Punjab	1.3	1.7	1.42	2.1	1.1	2.2
Rajasthan	1.1	1.5	1.74	1.2	1.9	1.8
Tamil Nadu	9.0	5.8	13.37	12.4	6.2	10.5
Uttar Pradesh	1.4	1.1	1.24	1.5	1.3	2.4
West Bengal	6.0	2.1	4.28	5.6	5.8	4.0
All-India	1.6	2.1	1.03	2.4	2.4	1.0

Source: Same as Table 3.

Table 8b: Ratio of Cost of Treatment between Private and Public Provider, 1986-87 to 2004

States	Outpatient Care					
	Rural			Urban		
	1986-87	1995-96	2004-05	1986-87	1995-96	2004-05
Andhra Pradesh	1.8	4.1	1.78	4.2	2.3	2.6
Assam	0.8	0.6	1.45	0.4	0.9	0.9
Bihar	0.6	1.2	0.65	1.7	3.0	0.8
Gujarat	1.6	2.3	1.63	1.5	1.7	2.7
Haryana	1.6	0.8	1.35	1.9	0.5	1.1
Himachal Pradesh	0.8	NE	0.69	1.3	NE	1.7
Jammu & Kashmir	0.8	NE	1.2	1	NE	0.6
Karnataka	1.8	2.0	2.1	1.4	1.4	1.8
Kerala	1.5	1.6	1.31	1.6	1.6	1.2
Madhya Pradesh	1.7	1.7	0.96	1.9	0.5	1.8
Maharashtra	1.2	2.0	1.3	1.3	1.6	2.7
Orissa	0.7	1.2	0.98	1.9	0.9	0.6
Punjab	0.8	1.2	0.77	1	0.8	0.3
Rajasthan	0.9	0.8	0.37	1.0	1.3	1.1
Tamil Nadu	5.1	7.5	3.97	4.1	5.0	13.6
Uttar Pradesh	0.7	0.6	2.13	0.7	0.9	1.5
West Bengal	1.4	0.8	1.11	1.9	1.9	1.1
All-India	0.7	1.4	1.34	0.9	1.2	1.4

Source: Same as Table 3.

Table 9a: Cost of Treatment for Inpatient Care, 1986-87 to 2004 (1993-94 prices)

States	Rural inpatient			Urban inpatient			Per cent of annual change			
							Rural inpatient		Urban inpatient	
	1986-87	1995-96	2004	1986-87	1995-96	2004	1986-2004	1995-96-2004	1986-2004	1995-96-2004
Andhra Pradesh	1291	5273	3442	1470	4008	5427	9.7	-4.2	15.6	4.3
Assam	900	1595	2225	1655	3109	6087	8.5	4.8	15.5	11.6
Bihar	2089	3166	3776	1984	3055	5953	4.7	2.3	11.6	11.5
Gujarat	1481	2184	3236	2084	2729	4718	6.9	5.8	7.3	8.8
Haryana	2438	2645	5097	1391	5362	7967	6.3	11.2	27.4	5.9
Himachal Pradesh	1719	2075	4705	1862	2168	5223	10.1	15.4	10.5	17.1
Jammu & Kashmir	1163	2090	3015	1148	2963	4195	9.2	5.4	15.4	5.0
Karnataka	1626	2458	3470	2150	2947	4459	6.6	5.0	6.2	6.2
Kerala	796	1881	2249	843	1581	3048	10.6	2.4	15.2	11.3
Madhya Pradesh	1205	1797	2706	1041	2276	3760	7.2	6.1	15.1	7.9
Maharashtra	1628	2534	3436	2682	3279	5365	6.4	4.3	5.8	7.7
Orissa	1353	1346	2460	1282	3173	3545	4.7	10.0	10.2	1.4
Punjab	2524	4092	7158	2795	4686	11354	10.6	9.1	17.7	17.3
Rajasthan	1856	2492	4465	1329	2583	4517	8.1	9.6	13.9	9.1
Tamil Nadu	845	2330	3129	1246	3227	6379	15.7	4.2	23.9	11.8
Uttar Pradesh	2266	3567	5211	3266	4836	5285	7.5	5.6	3.6	1.1
West Bengal	757	1605	2474	1914	2639	4876	13.2	6.6	9.0	10.3
All-India	1605	2627	3408	2227	3216	5272	6.5	3.6	7.9	7.7

Source: Same as Table 3.

Table 9b: Cost of Treatment for Outpatient Care, 1986-87 to 2004 (1993-94 prices)

States	Rural outpatient			Urban outpatient			Per cent of annual change			
							Rural outpatient		Urban outpatient	
	1986-87	1995-96	2004	1986-87	1995-96	2004	1986-2004	1995-96-2004	1986-2004	1995-96-2004
Andhra Pradesh	126	135	156	119	141	184	1.4	1.9	3.2	3.7
Assam	158	124	184	23	148	239	0.9	5.8	55.5	7.5
Bihar	**297**	**175**	**239**	175	174	181	-1.1	4.5	0.2	0.5
Gujarat	154	129	181	175	179	240	1.0	4.9	2.1	4.1
Haryana	136	155	240	134	340	140	4.5	6.6	0.3	-7.1
Himachal Pradesh	**247**	**71**	**140**	**222**	**109**	**179**	-2.5	11.7	-1.1	7.7
Jammu & Kashmir	**192**	**154**	**179**	154	122	245	-0.4	1.9	3.4	12.2
Karnataka	88	100	245	124	141	195	10.3	17.6	3.3	4.6
Kerala	115	112	195	96	98	110	4.0	9.0	0.8	1.4
Madhya Pradesh	**141**	**127**	**110**	**220**	**308**	**190**	-1.3	-1.7	-0.8	-4.7
Maharashtra	190	135	190	**192**	**152**	**183**	0.0	4.9	-0.3	2.5
Orissa	117	121	183	111	112	156	3.3	6.3	2.3	4.8
Punjab	154	144	156	151	133	199	0.1	1.0	1.9	6.1
Rajasthan	188	157	199	**207**	**162**	**172**	0.3	3.2	-1.0	0.7
Tamil Nadu	77	84	172	87	106	156	7.1	12.8	4.7	5.8
Uttar Pradesh	169	184	156	**235**	**186**	**195**	-0.5	-1.8	-1.0	0.6
West Bengal	98	107	195	164	112	182	5.8	9.9	0.7	7.5
All-India	141	144	182	152	159	180	1.7	3.2	1.0	1.6

Source:

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