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Health-Care Expenditure in Rural India

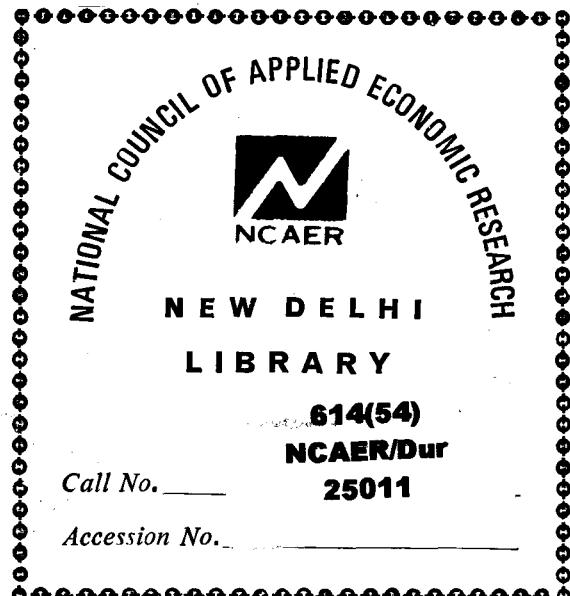
V. Selvaraju



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Abstract

This study attempts to estimate and analyse the level of health-care expenditure incurred by the state governments and households in the rural sector of the major states in India. It studies the interlinkage between public spending and household spending on health care. The utilisation of public and private facilities has also been analysed to provide a comprehensive view of the health sector in the context of the ongoing fiscal adjustment programmes. The household expenditure on health accounts for a major share of about 70–80 per cent of the total health expenditure in India. As a percentage of income, households spend about 5.40 per cent while the government spends only about 1.09 per cent in rural India, according to the 1993–94 data. The structure of spending reveals that the state governments spend largely on personnel in terms of salaries and wages, and households spend primarily on medicines, clinical charges, etc. This suggests that health spending by governments and that by households are complementary and not substitutes. The results of this study indicate a negative association between the overall economic development and prevalence rates of morbidity across the states. The analysis of household expenditure on the treatment of both short-duration and long-duration illnesses by various income levels clearly indicates that as income rises, the expenditure on health care also increases. A substantial proportion of poorer households in rural India depend on public health facilities for the treatment of short-duration and major morbidity. However, patients depend on private health facilities at higher levels of income. Similarly, dependency on indigenous practitioners is also found to decline at higher levels of income. Thus, any move to levy user charges or attempts to recover cost from public health facilities would impose a heavy financial burden on the poorer households and may discourage them from seeking any medical care.

JEL Classification

H51, I1

Keywords

Government Health Expenditure; Health Care;
Household Health Spending; Morbidity

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1. Introduction

Health policies in India often focus on public spending on health and its allocation, efficiency and related issues to set the agenda. In the economy as a whole, the public spending on health forms only a minuscule proportion of the total spending on health, as the household or out-of-pocket expenditure accounts for about 80 per cent of the total health expenditure in India. The failure to recognise and establish a linkage between public and household spending while formulating policies has resulted in a more complex health system. Such a system remains unresponsive to most policy changes. The lack of appropriate and consistent information on out-of-pocket expenditure is found to be the prime reason for the exclusion of this important category from the health policy planning in India.

The levels of spending on health care across regions and countries are often not comparable owing to the differences in historical and technological factors. In spite of this, the level of health status and the level of public spending are used widely as yardsticks, however crude, to compare the efficiency of public spending on health and to draw policy inferences. A comparison in terms of these indicators reveals that the health status index of India is significantly lower as compared to that of many other developing countries, even though India spends a much larger share of around 6 per cent of its gross domestic product (GDP) on health. It is often found that the existing programmes in India, as in many developing countries, favour urban areas over rural areas and tertiary care over primary care. There is an in-built urban bias in the government spending itself in most countries. For instance, in Morocco only less than 20 per cent of the health ministry's budget is allocated to rural areas (Hotchkiss and Gordillo, 1999). The percentage of health expenditure devoted to the urban sector was around 80 per cent in Ghana during 1985 and around 89 per cent in Cote d'Ivoire during 1984 (Vogel, 1988). This indicates the inefficient allocation or use of resources in the health sector and points out the

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need for reallocation of resources among various health-care programmes.

The budgetary allocation to the health sector has been reduced by all the major states of India since 1987-88, when the states faced severe fiscal strain (Table 1). The initiation of the structural adjustment programmes at the Centre in 1991 forced the central government to reduce the central transfers to the states in order to contain the growing fiscal deficits. The states were left with a reduced resource pool and they, in turn, were forced to reduce the budgetary allocation to various sectors. In a situation like this, the social sector has often been found to be one of the 'soft targets' for reducing budgetary allocations in many countries, and India is no exception to this.

The *World Development Report 1993* observed that recurrent expenditure on primary-care inputs other than salaries is particularly vulnerable to budget cuts. This is true in the case of India, as the expenditure on salaries alone accounts for more than 60 per cent of the total health budget of most of the states, leaving very little for other components of health care. Since the expenditure on salaries cannot be downsized straight away, any reduction in the budget directly affects the expenditure on drugs, medicines, maintenance, etc. As a result, the quality of services provided by public facilities deteriorates. Studies often suggest that the levy of user charges can generate additional resources to the extent of 10 to 20 per cent of the total government spending on health (World Bank, 1993, p. 118). Though user charges are often viewed as anti-poor, patients in fact often pay much more for the supposedly free services. For instance, patients in India, Indonesia and Vietnam had to pay two to three times the official fees for each visit in terms of indirect costs, such as transport expenses, the opportunity cost of time spent, etc., for availing the health services (World Bank, 1993, p. 118). All these suggest that a decline in the public spending on health has increased the household out-of-pocket expenditure on health. But the World Bank (1993, p. 122) observed that this may not hold true in the case of poorer countries, as there is no apparent link between the public and private shares of health expenditure and also the proportion of income devoted to health in these countries.

It is widely agreed that the household expenditure on health has remained substantially high at around 70 to 80 per cent of the total health expenditure in India as in many other countries. For instance, the household expenditure on health is nearly 74 per cent of the health expenditure in Burkina Faso (Sauerborn et al., 1995), about 55 per cent in Egypt (Berman, 1997) and

about 75 per cent in India (Bhat, 2000). Further, in India, rural households bear the maximum burden as they account for about 85 per cent of the total household expenditure on health (Sanyal, 1996).

Studies by Waddington and Enyimayew (1990) and Collins et al. (1996) found that the level of utilisation of health services, particularly the curative services, by the poor declines drastically in the short run when user charges are introduced or revised upwards, but revert nearer to the previous level over time. But evidence suggests that the levy of user charges significantly reduces the consumption of health services by the poor. For example, Gertler and van der Gaag (1990) found that the price elasticity of the poorest income quartile for hospital and clinical services was twice that of the highest income quartile for different levels of prices and income in two developing countries. However, there is no conclusive evidence of the impact of levy of user charges on the level of utilisation of health services, especially by the poor.

With the opening up of the insurance sector in India, the number of players in the health market will increase sharply and the market will become more complex in terms of types of health-care providers, charges levied, quality of services provided, etc. In this situation, a thorough understanding of the role of various stakeholders, like households, government and insurance providers, in the health sector will help the regulatory body to design and implement policies more effectively. For example, a higher level of user charges may force the low income users to refrain from availing the services—if the demand is price elastic, then the extent of utilisation would come down significantly for every increase in the user charges. This would cost the economy heavily in the long run as the disease burden will increase rapidly in the society. Therefore, it is necessary to study the responsiveness of the health-care consumption by various income groups.

Acharya, Carrin and Herrin (1993) in a study on rural households in Nepal found that the poorest quintile spent about 10 per cent of their income on health whereas the richest quintile spent 6 per cent of their income. In Vietnam, households spent about 7.1 per cent of their income on health (Ensor and Pham, 1996), whereas in Bangladesh private health expenditure accounted for 3.1 per cent of the per capita income (Sen, 1997). In India, in a tribal area of Madhya Pradesh, spending on health care accounted for 3.4 per cent of the household income (Mishra, Pandey and Sinha, 1993). In Gambia, the average household spending on health was around 6 per cent of the household income,

and it ranged between 3.4 per cent for high income and 10 per cent for low income households (Williams, 1994). In Egypt, households spent an average of 10.8 per cent of the per capita income on health care, ranging between 8.7 per cent by the richest quintile and 14 per cent by the poorest quintile (Bernam et al., 1995). In India, households spend nearly 4.90 per cent of their income on curative health care. Further, it is the rural households which bear the largest burden to the extent of 5.28 per cent as compared to their urban counterparts with 4.29 per cent (Shariff, 1995). All this evidence suggests that the burden of health-care costs is heavier on rural and poorer households.

Most of the existing studies in India have analysed the health-care spending by households and governments separately in a compartmentalised manner. A comprehensive analysis of both household and government spending would help to draw meaningful policy inferences. It is in this context that the present study attempts to estimate and analyse the levels of health-care expenditure incurred by households and governments in the rural sector of the major states in India. The relationship between government expenditure and household expenditure on health has been examined to understand the interlinkages between them. The levels of spending on health by the households covered by health insurance schemes and other households have also been analysed to assess the likely moral hazard effects.

2. Data Sources

Realising the lack of detailed information on utilisation of health services and spending on health care by households, attempts have been made by the National Sample Survey Organisation (NSSO) and the National Council of Applied Economic Research (NCAER) in this regard. The databases, however sporadic, provide a unique opportunity for researchers to estimate and analyse the expenditure incurred by households on account of morbidity. The data on public spending on health by the governments in different states are available from the budget documents of the respective states. The present study attempts to analyse the health-care expenditure by using the information available on household spending on health from the Human Development Indicator (HDI) Survey of the NCAER (NCAER-HDI Survey) carried out in 1994 and on public spending on health available from the state budget documents. A brief discussion on the data sets used in this study is presented in Section 2.1

2.1 Government Spending on Health

Health is a state subject in the Constitution of India. However, the central government spends substantially on health in view of the national health priorities and on considerations of positive externalities. Apart from the Ministry of Health and Family Welfare, various other ministries/departments also spend on health-care activities (for details see Reddy and Selvaraju, 1994). These are:

- (i) Ministry of Human Resource Development
- (ii) Department of Women and Child Development
- (iii) Ministry of Welfare
- (iv) Ministry of Railways
- (v) Ministry of Communications
- (vi) Ministry of Energy/Department of Coal
- (vii) Ministry of Labour
- (viii) Ministry of Defence
- (ix) Ministry of Food and Civil Supplies/Department of Food

Among these ministries at the central level and the corresponding departments at the state level, the Ministry/Department of Health and Family Welfare plays a central role by allocating a substantially larger budget to health

in addition to designing policies and guidelines. Keeping this in view and in order to compare the results of the present study with that of other studies, the expenditure on health by the government is defined to include the expenditure of the Department of Health and Family Welfare only. The expenditure figures presented under 'government' in this study for comparison with household spending on health refer to the revenue expenditure incurred by the Department of Health and Family Welfare only of the respective state governments. Health expenditure has been defined as the expenditure incurred by the government on two major areas, namely, medical and public health, and family welfare. The disaggregated data on government spending on health for analysis have been culled from the budget documents, namely, the detailed expenditure estimates of the respective states. The information pertains to 1993–94 for which household information is available from the NCAER-HDI Survey.

2.2 Household Spending on Health

The present study relies upon the NCAER-HDI Survey, carried out by the NCAER during January–May 1994, to derive the quantum of household spending on health. The NCAER-HDI Survey covered 33,230 sample households in 1765 villages in 195 districts of 15 major states, with the north-eastern states represented mainly by Assam.¹ The survey collected information on health regarding short-duration and long-duration/major morbidity with respect to every individual of the sample households.² Detailed information on various types of common and frequently occurring short-duration morbidity, like diarrhoea, cough and cold, and fever, has been collected. The types of major morbidity covered are epilepsy, hypertension, diabetes, heart disease, mental illness, tuberculosis, leprosy, cancer and any other major illness reported by the households. For each short-duration morbidity, information on two major episodes has been recorded, whereas in the case of major morbidity, information on three major episodes has been recorded. The sample design of

¹ The states covered under this survey were: Andhra Pradesh, Bihar, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Maharashtra, Madhya Pradesh, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh, West Bengal and the north-eastern region.

² Minor illnesses, such as cold, cough, fever, etc., have been defined in the survey as short-duration morbidity with a reference period of 30 days prior to the date of the survey. Major illnesses, such as heart diseases, tuberculosis, cancer, etc., have been defined as long-duration morbidity with a reference period of one year prior to the date of the survey.

the survey is such that the households are representative at the stratum level. Therefore, the household expenditure is estimated at the stratum level first and blown up using weights of the respective stratum to derive the state-level expenditure. The total household expenditure thus derived refers to the expenditure incurred by the households on the three episodes of major morbidity and two episodes of short-duration morbidity. The expenditure on short-duration morbidity refers to monthly expenditure and, hence, it has been multiplied by 12 to get the annual expenditure. For details of the survey, sampling design, etc., see Shariff (1999).

3. Derivation of Rural Health Expenditure from Government Budgets

The NCAER-HDI Survey covered only the rural households in the states. The government budgets provide only the state-level aggregate expenditure by economic and purpose-wise classification. Although there are a few schemes specific to the rural sector, like rural allopathy health services, rural family welfare programmes, etc., they are negligible in the total number of schemes as well as in terms of proportion of health budget. The rural population also benefits from various other public health schemes. Therefore, an attempt is made here to derive the total rural health expenditure from the state budgets. There is no standard methodology to arrive at government spending on the rural sector. In the absence of any such methodology, the present study attempts to improve the methodology adopted in Reddy and Selvaraju (1994) for this purpose. The indicators thus developed to apportion the rural share of expenditure of various health-care schemes are presented in the appendix.

4. Rural Health-Care Expenditure: Estimates and Analysis

Even though health is a state subject in the Constitution of India, the central government spends a considerable amount on health, particularly on public health and family welfare programmes. In fact, the central grants constitute a major share in the family welfare expenditure of the states. Therefore, the states spend allocations on medical services, which consist largely of curative services. But a reduction in the central grants to the states as a result of the initiation of structural adjustment programmes at the Centre in 1991, has further strained the already deteriorating fiscal position of most of the states in India. This in turn has forced the state governments to reduce the budgetary allocations to various sectors. The share of state budget allocation to the 'soft target' like health has declined continuously over the years as can be seen in Fig. 1 (see Table 1).

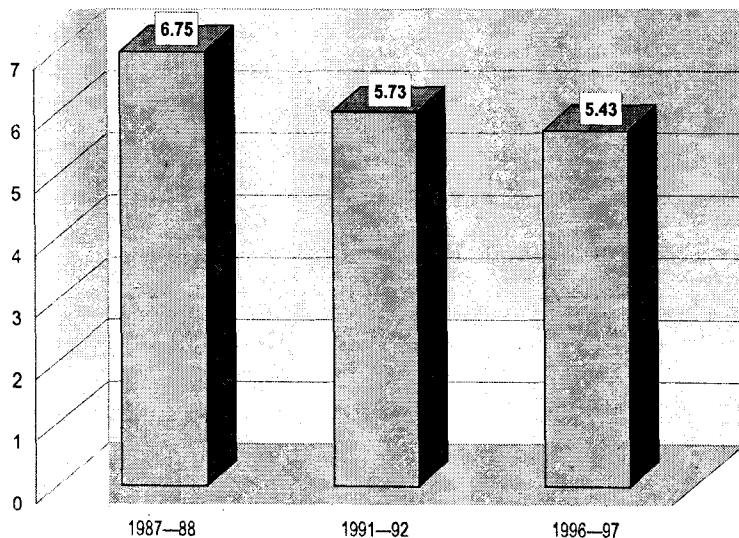


Fig. 1 Share of Health Budget in the Total Revenue Budget of 16 Major States

However, health expenditure is predominantly incurred by households, even in rural India, and the share of the state governments is limited to less than 25 per cent in the total health expenditure in all the major states, except Karnataka³ (Table 2). In states like Andhra Pradesh, Bihar and West Bengal, the share of

³ The size of sample households in Karnataka was not representative enough to estimate and present the level of household spending on health comparable with that in other states.

the government spending is less than 10 per cent. The figures presented in Table 2 reveal that the share of the states in the total health expenditure is very minimal and, hence, does not play any significant role in influencing the level of health status. For instance, in Kerala the share of the government spending on health is about 12 per cent and the corresponding figure for BIMARU⁴ states like Rajasthan and Uttar Pradesh is also about 13 per cent. But the level of health status in the former is in no way comparable to that in the latter.

Similarly, the proportion of income⁵ spent on health by the state governments varies widely, from 0.69 per cent in Punjab to 3.63 per cent in Himachal Pradesh, while the proportion of income spent on health by households is much higher and ranges between 1.38 per cent in Karnataka and 9.21 per cent in Himachal Pradesh (Table 2). The figures presented in Table 2 also do not support the hypothesis that the states that spend a higher level of income on health have a better health status. All these facts lead to the conclusion that neither the proportion of income spent nor the extent of the total budget spent on health by the state governments and households influences the level of health status. The extent of the total budget allocated to health in a given state, however, reveals the priority accorded to health in that particular state.

While analysing the composition of health-care expenditure of households and the state governments, to find out whether the two are complementary and what constitutes the health expenditure of households and the governments, some important observations are made. Of the total household health expenditure, more than 50 per cent is incurred on medicines, surgery and clinical expenses in all the 15 major states (Table 3). The expenditure on diet, transport, rituals and tips is about 21 per cent, and the fees for consultation account for about 10 per cent of the total household expenditure on health in all the states. On the other hand, the decomposition of the government health expenditure of the states suggests that more than 60 per cent of the expenditure is incurred on salaries and office expenses and the expenditure on materials and supplies constitutes only about 6 per cent. The rest, about 30 per cent, is on rent, taxes, travel, etc. A comparison of the figures in Table 3 reveals that

⁴ BIMARU states comprise Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh.

⁵ State income refers to gross state domestic product (GSDP) of the rural sector defined as the GSDP originating from agriculture, forestry and logging, fishing, and mining and quarrying, as reported by the Central Statistical Organisation (CSO).

households spend primarily on medicines, surgery and clinical charges whereas the governments spend a huge share of their health budget on medical personnel, in terms of salaries and office expenses.

4.1 Inter-State Variations in the Utilisation of and Spending on Health Services

Given the demographic and health status profile of the Indian states, one would expect that the BIMARU states would be experiencing higher prevalence levels of both short-duration and long-duration morbidity. The results presented in Table 4 do support this hypothesis to some extent. Among the BIMARU states, Bihar and Madhya Pradesh report significantly higher prevalence rates of short-duration morbidity. It is interesting to note that in Haryana, Himachal Pradesh and Orissa, where the dependency on public health facilities is substantially higher, the prevalence rate of short-duration morbidity is also considerably higher. A very high prevalence rate of both short-duration and major morbidity is registered in Himachal Pradesh. The results also suggest that prevalence rates are substantially lower in states that are economically better off, except Tamil Nadu and West Bengal. Further, the prevalence rates are significantly low in Gujarat, Kerala and Maharashtra, where local public services are coordinated to a large extent through decentralised framework.

About the treatment-seeking behaviour of patients from rural areas and low income groups, the general perception—which is supported by a number of studies—is that, unless it is essential for survival, patients of these strata do not seek medical treatment even if the services are available for free (Jimenez, 1986). A substantial amount of indirect costs, such as waiting time, wage lost, transport expenses, etc., associated with the free public health services deters these patients from availing these facilities. But the results of the NCAER-HDI Survey prove otherwise. A large percentage (more than 75 per cent) of the patients with major morbidity sought treatment either from indigenous practitioners or from-qualified medical personnel in public or private health facilities (Table 5).

The percentages of patients utilising indigenous, public and private sources for the treatment of short-duration morbidity, like diarrhoea, cold and cough, and fever, are presented in Table 5. The dependency of patients on indigenous practitioners in the two prominent BIMARU states, namely, Bihar and Madhya Pradesh, is significantly higher for the treatment of both short-duration morbidity

and major morbidity as compared to in other states. Further, for the treatment of major morbidity, the patients in Orissa, Rajasthan, Madhya Pradesh, Andhra Pradesh and Karnataka depend largely on public health services. In the case of Orissa, due to lack of development and the poor spread of private health services, patients do not have any alternative to public health facilities and, hence, majority of patients with short-duration morbidity and major morbidity seek treatment from public sources. In all other states, private sector services play a relatively dominant role in providing health services. A significant proportion of patients in West Bengal—nearly 35 per cent of those reporting major morbidity and more than 45 per cent of those reporting short-duration morbidity—did not seek medical care from any of the three sources considered here. Similarly, in Bihar, a significant proportion of patients with short-duration morbidity did not seek medical care from any of the three sources.

The cost of treatment plays a major role in determining the care-seeking behaviour of patients. As widely perceived, private medical care is costlier than public care. In the states where patients seek medical care mainly from public sources, the expenditure incurred per reported case is found to be much lower, except in Rajasthan (Table 6). Also, in Madhya Pradesh and Orissa, where a considerable proportion of patients seek treatment from indigenous practitioners, the cost of treatment of short-duration morbidity as well as major morbidity is found to be much lower as compared to in other states.

The extent of coverage through employer-provided health services is negligible among the sample households of the present study. This is, obviously, because the sample households in this study represent only the rural sector. Usually the households covered under employer-provided health care are found in urban clusters. Therefore, the expenditure incurred per reported case or the cost of care does not show any specific trend, whether it is financed by the household or by the employer (Table 7). But the indications are that the cost of care is somewhat less in the employer-provided health facilities in most of the states for the treatment of short-duration morbidity as well as major morbidity. One of the probable reasons for this trend is that strict monitoring in the employer-managed facilities reduces the moral hazard by reducing the excess and wasteful consumption of health care by patients. Also, in the employer-managed care, there is a possibility that only the minimum needed care is administered instead of over-prescription and/or expensive care, which is often the case when the patients seek care from private providers.

4.2 Utilisation of and Spending on Health Services by Different Income Groups

In order to analyse the extent and structure of spending on health by households of various economic strata, the sample households have been classified into decile groups based on household income as reported in the NCAER-HDI Survey. The main objective is to study whether there is any significant variation in the extent and structure of spending on health by households of various economic strata.

A number of studies have reported that the prevalence rates of morbidity are generally higher among poorer households due to poverty and malnutrition as compared to among households with higher levels of income. But the results of this survey presented in Table 8 suggest that prevalence rates are relatively lower among lower income groups and higher among higher income groups. Though this is particularly evident in the case of major morbidity prevalence rates, no marked difference is observed between richer and poorer households. This trend in the existing literature is ascribed to the fact that certain minor illnesses are often not perceived as morbidity, particularly by poorer households, and hence the reporting level is also lower. Further, as the sample households of this study have been drawn from the rural sector, the extent of under-reporting of morbidity is significantly higher among the poorer households.

4.2.1 Source of Treatment for Major Illnesses

The coverage of health insurance is very limited in India, particularly in the rural sector. As a result, poorer households tend to spend a larger share of their income on health care. Also, poorer households borrow from other sources when there is an incidence of major morbidity and get into debt trap. Morbidity and the expenditure incurred on it are found to be one of the major causes of indebtedness among rural households. Since the rural workforce is not an organised workforce, the coverage under employer-provided insurance is very limited for this group.

More than 90 per cent of the households bear the burden of major illnesses themselves, irrespective of their level of income (Table 9). Contrary to expectations, even households with higher levels of income resort to other sources, like borrowing, for financing the treatment of major illnesses. But the proportion of the households that depend on other sources for financing the treatment of major illnesses declines, however marginally, as the level of income

increases. This implies that poorer households bear heavy financial burden on account of illnesses. The coverage of employer-provided insurance among the sample households is negligible at less than 2.5 per cent.

Studies have often found that poor patients depend heavily on public health services because the cost of treatment of illnesses is higher in private health facilities. The patients with higher levels of income use private care services more, which are believed to be superior to public health services in terms of quality. The empirical evidence of this study tends to support this assertion as only about 35 per cent of the patients seek care from public facilities for major illnesses (Table 10). Patients depend largely on private health facilities, irrespective of their level of income. The result of this study also corroborates the finding of the existing studies that as the level of income rises, the dependency on public facilities declines and shifts towards private facilities. The dependency on indigenous practitioners does not vary significantly among patients of various income groups.

4.2.2 Source of Treatment for Short-Duration Morbidity

The illnesses of short duration are generally not regarded to be so serious as to need medical attention and, as a result, under-reporting and non-treatment of these illnesses are quite common among rural and low-income households. However, the results of the present study reveal that 70 to 80 per cent of the patients who reported diarrhoea and around 75 per cent of the patients who reported cold and cough sought treatment from public health facilities, private health facilities or indigenous practitioners (Table 10). For treating diarrhoea, patients depend equally on public and private facilities, whereas for treating cold and cough, the dependency on private facility is found to be relatively higher. As generally believed, there is a shift towards private facilities as the level of income rises. However, the magnitude of the shift is marginal because of homogeneous social characteristics of the sample households and due to the perceived seriousness about the illness. The proportion of patients with diarrhoea, and cold and cough who sought treatment from indigenous practitioners is less than 10 per cent of the total cases treated. However, the proportion of patients with diarrhoea who sought treatment from indigenous practitioners declines considerably among the higher income groups.

In the case of fever, the proportion of patients who received medical care is comparatively higher (more than 80 per cent) as compared to other short-

dURATION illnesses, like diarrhoea, and cold and cough (Table 10). Also, there is a significant difference in the care-seeking behaviour of the patients when there is an episode of fever. More than 50 per cent of the patients sought treatment from private health facilities and the dependency on public health facilities is less than 25 per cent. Further, the proportion of patients who sought treatment from private facilities for fever increases considerably with the rise in the level of income. The proportion of patients who received treatment from indigenous practitioners declines at higher levels of income. The extent of dependency on indigenous practitioners for the treatment of fever is relatively low as compared to that in the case of diarrhoea, and cold and cough.

The average expenditure incurred on both short-duration and long-duration illnesses by households at various income levels clearly indicates that as the level of income rises, the expenditure on health care also increases (Table 11). On the contrary, the utilisation of services, as seen in the previous sections, does not show any significant difference among these groups of households. There is also no apparent link between the level of expenditure incurred by households on seeking treatment from employer-provided facilities and that from other market-based facilities (Table 12). The expenditure incurred by households on seeking treatment from employer-provided facilities varies widely among various income groups and does not exhibit any specific trend. This is primarily due to the negligible proportion of households covered by employer-provided health facilities in the total sample households of the survey. On the other hand, the expenditure incurred by households on seeking treatment from market-based health facilities suggests that even the poorer households spend equally on health care as the richer households.

5. Conclusion

The present study is an attempt to estimate health-care expenditure incurred by the state governments and households in the rural sector of 15 major states. Based on the NCAER-HDI Survey and the budget documents of the respective states, it is found that the households in the rural sector spent a much larger share of their income on health (around 5.40 per cent) as compared to the state governments (1.09 per cent) in 1993–94. In comparison with that in other developing countries, the present level of government spending on health in these states is found to be highly inadequate. Of the total health-care expenditure, households account for more than 75 per cent and the state governments finance the rest through their budgets. Often it is suggested that user charges need to be levied and/or raised in public health facilities to mobilise resources for the health sector as the governments are already under fiscal strain and are unable to allocate additional resources. Under the prevailing circumstances, any attempt to levy and/or raise the user charges will only aggravate the burden on the poorer and rural households.

The analysis of the utilisation of health services by various income groups suggests that public health services cater to substantial medical needs of the poorer sections even in rural areas. The declining dependency of patients on public health facilities at higher levels of income reinforces the fact that it is the poorer patients who resort to public health facilities when there is an episode of illness. Therefore, any attempt to levy user charge or cost recovery in public health facilities, without adequate social security net for the deprived classes, would be detrimental in the present circumstances. Households in the rural sector spend a larger sum on illnesses like diarrhoea, and cough and cold, which are largely due to lack of safe drinking water and sanitation. This warrants a concerted effort on the part of the government to provide safe drinking water and sanitation facilities in order to reduce the household burden on account of avoidable illnesses.

The analysis of the composition of health-care expenditure reveals that salaries alone account for more than 60 per cent of the total government health expenditure, leaving a very small proportion for drugs, equipment, etc., which are equally important for the efficient delivery of services. Households, on the other hand, spend primarily on medicines, clinical charges, etc., which suggests that household health expenditure and government health expenditure are

complementary in nature. At present, the role of employer-provided insurance in health care is very limited or negligible in the rural sector of the states. Households in many states spend a significantly large amount even to avail the services through employer-provided insurance and, hence, any attempt to expand the scope of the existing or new insurance schemes needs to be critically reviewed in detail in terms of their efficiency and viability.

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Table 1
Trends in the Budgetary Allocations to the Health Sector
among the Major States, 1987-88 to 1996-97

| States | 1987-88 | 1991-92 | 1996-97 (per cent) |
|-------------------------|-------------|-------------|-----------------------|
| Andhra Pradesh | 6.82 | 5.77 | 5.29 |
| Assam | 6.40 | 6.68 | 6.37 |
| Bihar | 5.84 | 5.65 | 5.23 |
| Goa | 7.59 | 8.34 | 6.29 |
| Gujarat | 5.68 | 5.42 | 5.04 |
| Haryana | 4.89 | 4.19 | 2.74 |
| Karnataka | 7.08 | 5.94 | 5.13 |
| Kerala | 7.41 | 6.92 | 6.37 |
| Maharashtra | 6.42 | 5.25 | 4.82 |
| Madhya Pradesh | 6.68 | 5.66 | 4.83 |
| Orissa | 7.13 | 5.94 | 5.35 |
| Punjab | 6.52 | 4.32 | 4.55 |
| Rajasthan | 6.40 | 6.85 | 7.01 |
| Tamil Nadu | 6.77 | 4.82 | 5.83 |
| Uttar Pradesh | 7.62 | 6.00 | 6.01 |
| West Bengal | 8.27 | 7.31 | 6.83 |
| All major states | 6.75 | 5.73 | 5.43 |

Note: Figures refer to the revenue expenditure on health and family welfare as percentage of the total revenue expenditure of the respective states.

Source: Budget documents of the respective states.

Table 2
Extent of Spending on Health by State Governments and Households
in Rural India, 1993-94

| States | Percentage share in total health expenditure | | Health expenditure as percentage of income | | Per capita spending on health (Rs.) |
|------------------|-------------------------------------------------|-----------|-----------------------------------------------|------------------------|-------------------------------------------|
| | Government ^a | Household | Government ^b | Household ^c | |
| Andhra Pradesh | 9.09 | 90.91 | 0.86 | 7.28 | 366.30 |
| Bihar | 9.43 | 90.57 | 1.20 | 5.37 | 271.48 |
| Gujarat | 15.81 | 84.19 | 0.90 | 3.72 | 263.56 |
| Haryana | 21.34 | 78.66 | 0.91 | 2.95 | 305.11 |
| Himachal Pradesh | 19.83 | 80.17 | 3.63 | 9.21 | 560.77 |
| Karnataka | 39.69 | 60.31 | 0.99 | 1.38 | 109.16 |
| Kerala | 11.87 | 88.13 | 1.30 | 7.30 | 370.60 |
| Madhya Pradesh | 13.58 | 86.42 | 0.98 | 5.89 | 262.74 |
| Maharashtra | 15.94 | 84.06 | 0.89 | 3.15 | 246.44 |
| Orissa | 21.34 | 78.66 | 1.40 | 4.60 | 169.78 |
| Punjab | 14.97 | 85.03 | 0.69 | 4.20 | 441.45 |
| Rajasthan | 13.05 | 86.95 | 1.48 | 7.51 | 381.82 |
| Tamil Nadu | 11.57 | 88.43 | 1.47 | 7.93 | 408.88 |
| Uttar Pradesh | 13.26 | 86.74 | 1.29 | 6.38 | 270.63 |
| West Bengal | 9.78 | 90.22 | 0.91 | 5.96 | 302.77 |
| All major states | 13.23 | 86.77 | 1.09 | 5.40 | 290.68 |

Notes: ^a Government expenditure on health for the rural sector has been derived based on the indicators listed in the appendix.

^b Government expenditure on health as a percentage of rural GSDP, that is, GSDP originating from the primary sector.

^c Household expenditure on health as a percentage of household income.

Sources: 1. Budget documents of the respective states.

2. *Estimates of State Domestic Product*, Central Statistical Organisation, Government of India, New Delhi, 1995.

3. NCAER-HDI Survey 1994.

Table 3
**Composition of Household Expenditure and Government Expenditure
on Health**

(per cent)

| States | Household expenditure | | | Government expenditure | | |
|------------------------------|-----------------------|--------------------------------------------------|-----------------------------------------|---------------------------------------|-------------------------------------------------------|------------------------------------------------|
| | Fees | Medicines, clinical expen- ses and surgery | Diet, rituals, transport and tips | Salaries and office expenses | Machinery, equipment, materials and supplies | Travel, rent, rates, taxes and others |
| Andhra Pradesh | 17.14 | 50.33 | 32.52 | 73.15 | 12.34 | 14.52 |
| Bihar | 9.00 | 67.39 | 23.61 | NA | NA | NA |
| Gujarat | 12.87 | 64.10 | 23.04 | 22.24* | 3.58 | 74.18 |
| Haryana | 13.42 | 64.80 | 21.78 | 73.95 | 12.35 | 13.70 |
| Himachal Pradesh | 3.20 | 84.94 | 11.85 | NA | NA | NA |
| Karnataka | 13.37 | 65.79 | 20.83 | 5.23* | 0.56 | 94.21 |
| Kerala | 8.81 | 78.93 | 12.26 | 79.36 | 14.16 | 6.48 |
| Maharashtra | 11.07 | 68.34 | 20.58 | 33.58* | 7.42 | 59.00 |
| Madhya Pradesh | 10.85 | 59.62 | 29.54 | NA | NA | NA |
| Orissa | 7.01 | 71.32 | 21.68 | 84.60 | 4.82 | 10.58 |
| Punjab | 2.26 | 89.29 | 8.45 | 84.58 | 8.07 | 7.35 |
| Rajasthan | 10.35 | 66.66 | 22.99 | 80.83 | 4.88 | 14.29 |
| Tamil Nadu | 20.47 | 59.85 | 19.67 | 69.21 | 0.62 | 30.17 |
| Uttar Pradesh | 5.94 | 74.52 | 19.55 | 73.19 | 5.97 | 20.84 |
| West Bengal | 12.04 | 77.28 | 10.68 | 85.14 | 3.15 | 11.70 |
| Total of major states | 10.93 | 67.88 | 21.19 | 63.99 | 6.04 | 29.97 |

Notes: NA indicates that the break-up of expenditure is not available from the budget documents.

* Figures relating to salaries and office expenses of Gujarat, Karnataka and Maharashtra do not reflect the actual position due to differences in the budget accounting procedures.

Sources: 1. Budget documents of the respective states.

2. NCAER-HDI Survey 1994.

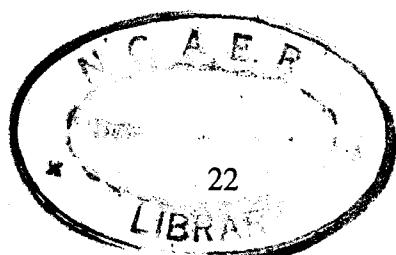


Table 4
Prevalence Rate of Short-Duration and Major Morbidity
 (per '000 population)

| States | Short-duration morbidity | Major morbidity |
|----------------------|--------------------------|-----------------|
| Andhra Pradesh | 139 | 86 |
| Bihar | 132 | 82 |
| Gujarat | 56 | 29 |
| Haryana | 154 | 89 |
| Himachal Pradesh | 313 | 153 |
| Karnataka | 23 | 14 |
| Kerala | 86 | 74 |
| Maharashtra | 85 | 74 |
| Madhya Pradesh | 194 | 87 |
| Orissa | 142 | 88 |
| Punjab | 155 | 86 |
| Rajasthan | 115 | 54 |
| Tamil Nadu | 173 | 78 |
| Uttar Pradesh | 99 | 44 |
| West Bengal | 165 | 121 |
| North-eastern region | 92 | 39 |

Source: NCAER-HDI Survey 1994.

Table 5
Percentage of Short-Duration and Major Morbidity Cases Treated by Source of Treatment

| State | Percentage of diarrhoea cases treated by | | | | Percentage of cold and cough cases treated by | | | | Percentage of fever cases treated by | | | | Percentage of major morbidity cases treated by | | | |
|----------------------|------------------------------------------|----------------------------|-----------------------------|---------------------|-----------------------------------------------|----------------------------|-----------------------------|---------------------|--------------------------------------|----------------------------|-----------------------------|---------------------|------------------------------------------------|----------------------------|-----------------------------|---------------------|
| | Indigenous practitioner | Public source ^a | Private source ^b | Total cases treated | Indigenous practitioner | Public source ^a | Private source ^b | Total cases treated | Indigenous practitioner | Public source ^a | Private source ^b | Total cases treated | Indigenous practitioner | Public source ^a | Private source ^b | Total cases treated |
| Andhra Pradesh | 2.45 | 48.77 | 30.06 | 81.29 | 2.24 | 34.29 | 33.17 | 69.71 | 0.37 | 26.74 | 33.70 | 60.81 | 1.66 | 55.06 | 31.07 | 87.79 |
| Bihar | 17.53 | 14.18 | 27.58 | 59.28 | 17.10 | 16.06 | 25.46 | 58.62 | 9.60 | 14.14 | 37.37 | 61.11 | 13.88 | 19.02 | 46.23 | 79.13 |
| Gujarat | 2.47 | 34.57 | 59.26 | 96.30 | 0.42 | 30.25 | 57.14 | 87.82 | 0.00 | 47.41 | 39.66 | 87.07 | 0.44 | 36.12 | 57.27 | 93.83 |
| Haryana | 0.00 | 15.63 | 77.56 | 93.18 | 1.05 | 9.92 | 77.22 | 88.19 | 0.72 | 10.87 | 77.90 | 89.49 | 2.43 | 26.93 | 63.69 | 93.05 |
| Himachal Pradesh | 4.83 | 41.26 | 27.88 | 73.98 | 2.87 | 43.09 | 28.49 | 74.46 | 1.79 | 32.14 | 30.36 | 64.29 | 2.72 | 53.76 | 25.65 | 82.12 |
| Karnataka | 2.17 | 47.83 | 45.65 | 95.65 | 3.76 | 47.31 | 44.09 | 95.16 | 1.45 | 44.93 | 49.28 | 95.65 | 6.00 | 59.33 | 28.67 | 94.00 |
| Kerala | 0.00 | 37.68 | 53.62 | 91.30 | 0.39 | 25.78 | 57.56 | 83.72 | 3.39 | 33.90 | 47.46 | 84.75 | 8.45 | 30.22 | 50.00 | 88.67 |
| Maharashtra | 0.00 | 18.69 | 75.25 | 93.94 | 0.16 | 14.89 | 78.06 | 93.10 | 0.29 | 12.93 | 80.46 | 93.68 | 1.31 | 19.89 | 74.39 | 95.59 |
| Madhya Pradesh | 8.71 | 36.68 | 29.94 | 75.33 | 13.44 | 29.85 | 37.96 | 81.24 | 8.94 | 32.09 | 42.42 | 83.44 | 19.02 | 40.12 | 28.77 | 87.91 |
| Orissa | 9.80 | 61.25 | 7.80 | 78.84 | 10.40 | 52.90 | 10.25 | 73.55 | 2.72 | 71.20 | 6.52 | 80.43 | 9.38 | 62.90 | 14.52 | 86.80 |
| Punjab | 1.77 | 13.27 | 59.29 | 74.34 | 1.17 | 8.64 | 50.37 | 60.18 | 1.16 | 4.65 | 49.61 | 55.43 | 5.52 | 19.53 | 57.00 | 82.05 |
| Rajasthan | 0.72 | 53.62 | 35.51 | 89.86 | 1.82 | 33.09 | 52.55 | 87.45 | 0.72 | 48.01 | 39.35 | 88.09 | 5.19 | 47.12 | 39.81 | 92.12 |
| Tamil Nadu | 2.33 | 41.09 | 49.61 | 93.02 | 4.54 | 26.17 | 56.21 | 86.92 | 3.01 | 21.69 | 55.42 | 80.12 | 5.56 | 42.80 | 46.71 | 95.06 |
| Uttar Pradesh | 4.33 | 39.39 | 35.61 | 79.33 | 3.61 | 29.36 | 43.89 | 76.85 | 3.19 | 9.08 | 75.29 | 87.56 | 4.07 | 21.87 | 58.35 | 84.29 |
| West Bengal | 3.80 | 9.49 | 43.35 | 56.65 | 3.00 | 4.60 | 30.40 | 38.00 | 1.08 | 11.83 | 29.03 | 41.94 | 3.02 | 20.57 | 42.79 | 66.37 |
| North-eastern region | 0.58 | 46.51 | 20.35 | 67.44 | 0.37 | 50.37 | 22.59 | 73.33 | 0.00 | 30.43 | 13.04 | 43.48 | 0.00 | 51.32 | 33.77 | 85.09 |
| All states | 5.95 | 35.16 | 36.25 | 77.36 | 5.47 | 28.36 | 42.12 | 75.95 | 3.80 | 24.15 | 53.05 | 81.00 | 7.13 | 35.00 | 43.94 | 86.08 |

Notes: ^a Consists of primary health centres (PHCs), community health centres (CHCs), sub-centres and government hospitals.

^b Consists of private hospitals/nursing homes and private qualified doctors.

Source: NCAER-HDI Survey 1994.

Table 6
**Expenditure on the Treatment of Short-Duration and
 Major Morbidity**

(Rs. per reported case per annum)

| State | Short-duration morbidity | Major morbidity |
|----------------------|--------------------------|-----------------|
| Bihar | 1838 | 1020 |
| Jharkhand | 1333 | 1019 |
| Gujarat | 2158 | 2124 |
| Haryana | 876 | 1083 |
| Himachal Pradesh | 925 | 1116 |
| Karnataka | 2136 | 1275 |
| Kerala | 1606 | 1526 |
| Maharashtra | 1497 | 1310 |
| Madhya Pradesh | 900 | 754 |
| Orissa | 711 | 492 |
| Punjab | 1582 | 1744 |
| Rajasthan | 1777 | 1995 |
| Tamil Nadu | 1373 | 1718 |
| Uttar Pradesh | 1557 | 2205 |
| West Bengal | 962 | 1046 |
| North-eastern region | 1552 | 894 |

Source: NCAER-HDI Survey 1994.

Table 7
Expenditure on the Treatment of Short-Duration and Major Morbidity by Source of Payment

(Rs. per reported case per annum)

| State | Diarrhoea | | Cold and cough | | Fever | | Major morbidity | |
|----------------------|-----------|----------|----------------|----------|-----------|----------|-----------------|----------|
| | Household | Employer | Household | Employer | Household | Employer | Household | Employer |
| Andhra | | | | | | | | |
| Pradesh | 2189 | 1145 | 1771 | 2439 | 2907 | 1986 | 1313 | 1175 |
| Bihar | 1287 | 1020 | 1359 | 1650 | 1894 | 1200 | 888 | 2085 |
| Gujarat | 3012 | 0 | 2251 | 3196 | 2790 | 0 | 2577 | 3980 |
| Haryana | 624 | 0 | 866 | 0 | 966 | 480 | 1104 | 1000 |
| Himachal | | | | | | | | |
| Pradesh | 1333 | 0 | 986 | 866 | 3110 | 0 | 1584 | 1443 |
| Karnataka | 2543 | 0 | 2459 | 336 | 2261 | 0 | 1753 | 0 |
| Kerala | 1565 | 0 | 1697 | 1800 | 2070 | 0 | 1682 | 625 |
| Maharashtra | 1600 | 0 | 1299 | 0 | 2135 | 0 | 1394 | 3450 |
| Madhya | | | | | | | | |
| Pradesh | 655 | 560 | 903 | 2175 | 1093 | 240 | 773 | 469 |
| Orissa | 779 | 107 | 786 | 53 | 1155 | 510 | 537 | 341 |
| Punjab | 2397 | 3492 | 1413 | 2224 | 2058 | 3454 | 2237 | 2562 |
| Rajasthan | 1793 | 0 | 2687 | 2440 | 3010 | 0 | 2643 | 383 |
| Tamil Nadu | 1548 | 0 | 1249 | 1290 | 2600 | 0 | 1943 | 12100 |
| Uttar | | | | | | | | |
| Pradesh | 1325 | 360 | 1693 | 1037 | 1799 | 760 | 2637 | 1015 |
| West Bengal | 1530 | 2503 | 881 | 825 | 2886 | 0 | 1046 | 517 |
| North-eastern | | | | | | | | |
| region | 1689 | 540 | 2038 | 5520 | 1084 | 0 | 877 | 0 |

Source: NCAER-HDI Survey 1994.

Table 8
Prevalence Rate of Short-Duration
Morbidity by Decile Groups
(per '000 population)

| Decile groups | Short-duration morbidity | Major morbidity |
|---------------|--------------------------|-----------------|
| 1 | 127 | 67 |
| 2 | 129 | 70 |
| 3 | 133 | 72 |
| 4 | 129 | 74 |
| 5 | 129 | 72 |
| 6 | 119 | 76 |
| 7 | 130 | 74 |
| 8 | 125 | 82 |
| 9 | 129 | 80 |
| 10 | 136 | 80 |
| All | 128 | 71 |

Source: NCAER-HDI Survey 1994.

Table 9
Percentage of Cases Treated by Source of Expenditure on Major Morbidity

| Decile groups | Prevalence rate* | Percentage of cases treated by source of expenditure | | | |
|---------------|------------------|------------------------------------------------------|----------|--------|--------|
| | | Household | Employer | Others | Total |
| 1 | 67 | 93.04 | 1.15 | 5.81 | 100.00 |
| 2 | 70 | 93.02 | 1.49 | 5.49 | 100.00 |
| 3 | 72 | 92.91 | 1.43 | 5.66 | 100.00 |
| 4 | 74 | 93.97 | 0.48 | 5.56 | 100.00 |
| 5 | 72 | 94.81 | 1.22 | 3.97 | 100.00 |
| 6 | 76 | 93.65 | 1.32 | 5.04 | 100.00 |
| 7 | 74 | 94.39 | 1.87 | 3.74 | 100.00 |
| 8 | 82 | 93.21 | 2.39 | 4.40 | 100.00 |
| 9 | 80 | 94.05 | 1.19 | 4.76 | 100.00 |
| 10 | 80 | 94.04 | 1.32 | 4.64 | 100.00 |
| All | 71 | 93.43 | 1.29 | 5.29 | 100.00 |

Note: * Number of cases of major morbidity reported per thousand population.

Source: NCAER-HDI Survey 1994.

Table 10

Percentage of Short-Duration and Major Morbidity Cases Treated by Source of Treatment and Decile Groups

| Decile groups | Percentage of diarrhoea cases treated by | | | | Percentage of cold and cough cases treated by | | | | Percentage of fever cases treated by | | | | Percentage of major morbidity cases treated by | | | | |
|---------------|------------------------------------------|----------------------------|-----------------------------|---------------------|-----------------------------------------------|----------------------------|-----------------------------|---------------------|--------------------------------------|----------------------------|-----------------------------|---------------------|------------------------------------------------|----------------------------|-----------------------------|---------------------|-------|
| | Indigenous practitioner | Public source ^a | Private source ^b | Total cases treated | Indigenous practitioner | Public source ^a | Private source ^b | Total cases treated | Indigenous practitioner | Public source ^a | Private source ^b | Total cases treated | Indigenous practitioner | Public source ^a | Private source ^b | Total cases treated | |
| 28 | 1 | 5.78 | 36.83 | 36.14 | 78.75 | 5.75 | 29.67 | 41.57 | 76.99 | 3.18 | 25.00 | 52.14 | 80.32 | 6.95 | 36.11 | 42.78 | 85.84 |
| | 2 | 5.67 | 34.59 | 37.04 | 77.31 | 6.14 | 27.65 | 41.77 | 75.56 | 4.36 | 25.06 | 52.74 | 82.17 | 7.73 | 36.21 | 43.29 | 87.23 |
| | 3 | 7.53 | 34.79 | 33.89 | 76.20 | 5.96 | 27.11 | 42.44 | 75.50 | 4.98 | 25.23 | 51.36 | 81.57 | 7.65 | 33.77 | 42.94 | 84.37 |
| | 4 | 6.50 | 34.45 | 31.30 | 72.24 | 6.28 | 26.59 | 41.26 | 74.13 | 4.78 | 24.30 | 51.20 | 80.28 | 6.60 | 35.40 | 44.64 | 86.63 |
| | 5 | 6.33 | 30.63 | 39.49 | 76.46 | 5.85 | 27.20 | 44.02 | 77.07 | 4.36 | 24.94 | 52.30 | 81.60 | 7.33 | 34.67 | 44.58 | 86.58 |
| | 6 | 7.45 | 35.46 | 38.65 | 81.56 | 3.77 | 31.64 | 39.62 | 75.04 | 2.31 | 18.48 | 59.41 | 80.20 | 8.47 | 31.04 | 45.15 | 84.66 |
| | 7 | 5.43 | 35.66 | 36.82 | 77.91 | 2.81 | 29.53 | 43.41 | 75.75 | 3.41 | 22.35 | 49.62 | 75.38 | 6.04 | 35.45 | 44.99 | 86.49 |
| | 8 | 2.54 | 34.52 | 40.61 | 77.66 | 4.05 | 26.33 | 45.32 | 75.70 | 3.14 | 24.08 | 58.12 | 85.34 | 6.30 | 35.43 | 43.31 | 85.04 |
| | 9 | 3.57 | 31.25 | 41.96 | 76.79 | 2.44 | 27.18 | 45.64 | 75.26 | 2.94 | 22.06 | 61.76 | 86.76 | 4.76 | 30.95 | 53.27 | 88.99 |
| | 10 | 1.49 | 40.30 | 35.82 | 77.61 | 5.49 | 27.44 | 42.68 | 75.61 | 1.56 | 12.50 | 67.19 | 81.25 | 7.48 | 31.97 | 50.34 | 89.80 |
| | All | 5.95 | 35.16 | 36.25 | 77.36 | 5.47 | 28.36 | 42.12 | 75.95 | 3.80 | 24.15 | 53.05 | 81.00 | 7.13 | 35.00 | 43.94 | 86.08 |

Note: ^a and ^b as in Table 5.

Source: NCAER-HDI Survey 1994.

Table 11
**Per Capita Expenditure on the Treatment of Short-Duration and Major Morbidity in
Rural India**

(Rs.)

| Decile groups | Average expenditure on SDM | Average expenditure on LDM |
|---------------|-------------------------------|-------------------------------|
| 1 | 151.27 | 74.67 |
| 2 | 160.26 | 88.07 |
| 3 | 169.77 | 84.42 |
| 4 | 160.20 | 86.30 |
| 5 | 156.91 | 91.07 |
| 6 | 167.04 | 98.96 |
| 7 | 193.51 | 92.26 |
| 8 | 188.94 | 131.35 |
| 9 | 163.42 | 114.66 |
| 10 | 195.93 | 158.69 |

Notes: SDM: Short-Duration Morbidity; LDM: Long-Duration Morbidity

Source: NCAER-HDI Survey 1994. •

Table 12
**Expenditure on the Treatment of Short-Duration and Major Morbidity
by Source of Payment**

(Rs. per reported case per annum)

| Decile groups | Diarrhoea | | Cold and cough | | Fever | | Major morbidity | |
|---------------|-----------|----------|----------------|----------|-----------|----------|-----------------|----------|
| | Household | Employer | Household | Employer | Household | Employer | Household | Employer |
| 1 | 1229 | 1621 | 1281 | 1611 | 1522 | 2732 | 1306 | 1209 |
| 2 | 1244 | 1990 | 1250 | 2570 | 1848 | 1673 | 1381 | 1508 |
| 3 | 1142 | 96 | 1328 | 1253 | 1778 | 1120 | 1322 | 1446 |
| 4 | 1180 | 2260 | 1409 | 712 | 1560 | 600 | 1289 | 4784 |
| 5 | 1055 | 802 | 1349 | 930 | 1696 | 540 | 1431 | 1076 |
| 6 | 1450 | 444 | 1594 | 615 | 1560 | 0 | 1483 | 686 |
| 7 | 1749 | 924 | 1474 | 1704 | 1762 | 3420 | 1365 | 2825 |
| 8 | 1008 | 1200 | 1678 | 4120 | 2174 | 2720 | 1501 | 3178 |
| 9 | 959 | 240 | 1245 | 1196 | 1895 | 2040 | 1668 | 53 |
| 10 | 1310 | 0 | 1281 | 6000 | 2203 | 0 | 2563 | 595 |

Source: NCAER-HDI Survey 1994.

Appendix

Indicators Used to Apportion Government Health Expenditure for the Rural Sector

| Expenditure head | Rural share |
|------------------------------------------|--------------------------------------------------------------|
| Direction and administration | Percentage share of rural population in the total population |
| Hospitals and dispensaries | Percentage of doctors in PHCs |
| ESI & CGHS | Nil |
| Medical education, training and research | Percentage share of doctors in rural areas to total doctors |
| Prevention and control of diseases | 10 per cent |
| Prevention of food adulteration | 10 per cent |
| Drug control | Percentage share of doctors in rural areas to total doctors |
| Health education and publicity | 50 per cent |
| Minimum needs programme | Percentage share of rural population in the total population |
| Rural family welfare services | 100 per cent |
| Urban family welfare services | Nil |
| Maternity and child health | Percentage share of doctors in rural areas to total doctors |
| Compensation and awards (family welfare) | 40 per cent |
| Other expenditure | Percentage share of rural population in the total population |

Note: Rural share refers to the share in the total expenditure of the corresponding health scheme.

Sources: 1. *Population Projections for India and States*, Registrar General, Government of India, New Delhi, 1996.

2. *Health Information of India*, Central Bureau of Health Intelligence, Ministry of Health and Family Welfare, Government of India, New Delhi, 1996.

