

Working Paper 321

**Socio-economic Disparities in
Health Seeking Behaviour,
Health Expenditure and
Sources of Finance in Orissa:
Evidence from NSSO 2004-05**

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**SOCIO-ECONOMIC DISPARITIES IN HEALTH SEEKING BEHAVIOUR,
HEALTH EXPENDITURE AND SOURCES OF FINANCE IN ORISSA:
EVIDENCE FROM NSSO 2004-05**

Amit Kumar Sahoo¹ and S Madheswaran²

Abstract

Over the years, various healthcare plans and programmes have been formulated and implemented by the Government of Orissa but the State's health indicators have not improved substantially. Moreover, in recent years, the health-seeking behaviour of the people has been affected due to the increasing cost of healthcare. Healthcare is not free any more due to the introduction of user fees, increasing privatisation of healthcare delivery and technological innovations in the diagnosis and treatment of ailments. As a result, out-of-pocket expenditure has increased enormously. It has affected the socially and economically dis-advantaged groups the most. They have to borrow money, liquidate savings, sell valuable assets and even curtail expenditure on the education of their children in order to pay for expensive medical treatment. Hence, for the purpose of this paper we investigated broadly three main aspects, namely the healthcare-seeking behaviour, healthcare burden and, most importantly, the sources of finance for healthcare expenditure across socio-economic groups to provide policy suggestions on healthcare financing, with special focus on health insurance.

Keywords: Health financing; health-seeking behaviour; health expenditure; coping mechanism; health insurance; Orissa

Introduction

In recent years, various commitments have been articulated by the State government in several policies and programme documents to improve the health in Orissa. The Health and Family Welfare Department, Government of Orissa developed the Orissa State Integrated Health Policy in 2002. The main purpose of this policy was to improve the health of the people by providing healthcare in a socially equitable, accessible and affordable manner within a reasonable timeframe.

Some of the explicit targets proposed in the policy were as follows: reduction of maternal mortality ratio to 100 per 100,000 live births and infant mortality rate to 45 per 1,000 births, eradication of polio, yaws and leprosy, reduction of mortality due to malaria and other vector and water-borne diseases by 50 per cent and increasing utilisation of public health facilities to more than 75 per cent. The proposed remedial measures include establishment of effective partnerships between public, private and voluntary sectors at the local, district and State levels to create adequate infrastructure in the public healthcare system. A participatory approach involving communities and stakeholders in decision-making, planning and implementation of healthcare programmes were also advocated. The Orissa Vision 2010 document articulated similar commitments (HFWD, 2003).

The State government launched a number of special programmes to achieve some of the goals articulated in the 2002 Health Policy (HFWD, 2002) and Orissa Vision 2010 documents. For instance, an infant mortality reduction mission, launched in 2001, intended to reduce infant mortality to 60 by 2005.

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To reduce neonatal mortality and morbidity, the *Navajyoti* scheme was introduced in 2005, with a special focus on 14 districts where infant mortality rate exceeded the State average. Five common communicable diseases – malaria, leprosy, diarrhoea, acute respiratory infection and scabies – have been guaranteed free treatment and medicines since 2001 under the *Pancha Byadhi Chikitsa* scheme.

To support the new and existing schemes, the Orissa State Integrated Health Policy 2002 proposed that public expenditure on healthcare should be 2 per cent of the gross State domestic product (GSDP) and 5-6 per cent of the State budget. Primary healthcare was allocated 55 per cent of public healthcare spending while secondary and tertiary care got 35 per cent and 10 per cent respectively. This Integrated Health Policy also advocated equitable distribution of resources between rural and urban areas, worse-off and better-off districts and allopathic and Indian systems of medicine. To support this commitment the government launched a number of initiatives over the years. The government introduced user fees in 1991 in tertiary care hospitals. The fees were introduced for three categories of services, namely, diagnostics, special accommodation and transportation. Those living below the poverty line were exempted from user fees. The fee collected from others was retained by the district health societies and used for improving facilities at district hospitals. Further, the State Health Family Welfare Society was structured in 1998 by the government to channelise off-budget funds and improve efficiency in the allocation and utilisation of such funds. In 1999, a district level *Zilla Swasthya Samiti* was established by amalgamating existing societies dealing with various centrally and donor-sponsored programmes. The *Samiti* serves as a nodal agency for health and family welfare activities in the district.

Table 1: Health Indicators of Orissa in comparison to all India average

| Indicators | Orissa | India |
|---|--------------|----------------|
| Life expectancy* | 60 (M & F) | 62 (M), 64 (F) |
| Infant mortality rate (IMR)** | 64.7 | 57.0 |
| Maternal mortality Ratio (per 100000 live birth)* | 300 | 254 |
| Children < 5 years who are underweight (%) ** | 41 | 42.5 |
| Children aged 12–23 month fully immunised (%) ** | 51.8 | 43.5 |
| Children aged 6-59 months who are anaemic (%) ** | 65 | 69.5 |
| Live births delivered in a health facility (%) ** | 35.6 | 38.7 |
| Child birth attended by Doctor/Nurse/ANM/LHV/other health personnel** | 44.0 | 46.6 |
| Spells of ailments treated (non-institutional) during 15 days (%) *** | 76(R), 86(U) | 82(R), 89(U) |
| Proportion (per 1000) of persons hospitalised ³ | 23(R), 30(U) | 23(R), 31(U) |

Sources: * Registrar General, India (2009). *Special Bulletin on Maternal Mortality in India 2004–06*.

New Delhi: Office of RGI.

** International Institutes for Population Sciences (IIPS) and Macro International. 2008. National Family Health Survey (NFHS-3), India, 2005-06. Mumbai: IIPS.

*** National Sample Survey Organisation (2006). *Morbidity, Health care and conditioned of the aged, NSS 60th Round, January-June, 2004*. Ministry of Statistics and Programme Implementation, Government of India.

Despite significant reforms in the health sector over the years, health indicators remain poor in Orissa (Table 1). The infant mortality rate is at 65 per 1,000 live births – amongst the worst (ranked 7th) in India and life expectancy at birth is 60 years for both male and female against all India average of 62 for men and 64 for women. The under-five mortality rate of 91 per 1000 is well above the national average of 74 and ranks 4th behind Jharkhand. More than 50 per cent of deaths in India are caused by malaria. The death rate of women between the ages of 20 and 24 years in Orissa is the highest in India (Ager and Pepper, 2005).

The utilisation of health services for outpatient care has grown from 37 per cent in rural and 43 per cent in urban areas in 1986-87 to 51 per cent and 54 per cent respectively, in 2004-05 (NSSO, 2006). A little more than half of both urban and rural outpatients in Orissa utilise medical services of public healthcare institutions. This is against 22 and 19 per cent utilisation of public sector healthcare services in rural and urban India, respectively (ibid). These findings point to the greater dependence of the population on public healthcare facilities in Orissa, a State with widespread poverty and deprivation. However, evidence points to huge infrastructural gaps in public healthcare institutions and suggests that they do not operate at optimal levels. For example, the DLHS-3 fact sheet for Orissa (IIPS, 2007-08) reveals that only 60 per cent of sub-centres operate in government buildings, 43 per cent of ANMs reside at the sub-centre level, 49 per cent of Primary Health Centres have only 4 or more beds and 54 per cent of CHCs are designated as first referral units (FRU) (DLHS-3, 2007-08). The situation is worse in the tribal and remote areas of the State. This high level of dependency on public facility could be because of poverty and it will have an adverse effect on the quality of healthcare. However, if the ailment is serious and it requires quality treatment, people are bound to go for better quality provided by the private sector even if it is expensive. Although people seek good medical counsel from public providers, they are ready to pay for other services (like diagnostic test, and purchase of good medicine).

As revealed by MOHFW 2005 and 2009, out-of-pocket expenditure accounted for 77 per cent of total health expenditure in 2001-02, and around 80 per cent in 2004-05. In addition to that, we found a decline or stagnation in State government expenditure on healthcare (around 1 per cent of GSDP) caused probably by the effect of neo-liberalised policy and the obligation to the FRBM Act introduced in 2003. The Government of Orissa is promoting privatisation of healthcare in a sustained manner. Consequently, the percentage of out-of-pocket expenses borne by the common people even in the 21st Century has vastly increased. It highlights the inadequacy of available public services and the huge burden borne by the poor in accessing medical services. The huge burden of healthcare cost is also leading to impoverishment. For instance, the poverty headcount after accounting for out-of-pocket payments was 1,349,630 and 1,37,022 persons in rural and urban areas respectively in 1999-2000 (Garg and Karan; 2005). Generally, in the absence of efficient health financing options (like health insurance), catastrophic health expenditure is met by saving, borrowings, curtailing consumption and investment in children education etc., which have an impact on household welfare. Specifically, low income and poor people largely depend upon borrowing to cope with the huge healthcare spending, leading to indebtedness.

Many states in India ranked lower in earlier years have improved significantly in health indicators while Orissa remains on the same lower rung on the ladder of health indicators. Most of the arguments for the possible reasons are poverty, lack of infrastructure (health facilities, health personnel) etc. However, a few studies have investigated and highlighted the basic questions related to health-seeking behaviour, health expenditure and the sources of finance. In this context, a few relevant questions that need to be answered are as follows:

- i. What is the health-seeking behaviour in Orissa in comparison to its neighbouring States, developed States and at the national level?
- ii. Does health-seeking behaviour differ across socio-economic groups? If yes, what are the socio-economic variables that contribute significantly to this?
- iii. What is the condition of health expenditure (inpatient) in Orissa in comparison to its neighbouring States, developed States and at the national level?
- iv. Who bears, relatively, the highest burden of health expenditure – poor or rich, socially advantaged or disadvantaged groups in Orissa?
- v. What are the sources of finance to cover health expenditure? Does it vary across socio-economic groups?

To answer these questions the main facets of the study have to be investigated: health-seeking behaviour, healthcare burden and most importantly the source of finance for health expenditure across socio-economic groups because it plays major role in determining the overall economic welfare of the household and, lastly, to provide policy suggestions to improve healthcare financing, especially health insurance.

Data Sources and Methodology

This paper uses secondary unit level data on "Morbidity, Healthcare and Condition of the Aged" provided by National Sample Survey Organisation (NSSO) 2004-05. The data provides information on the utilisation of curative health care services, morbidity profile of the population, inpatient (hospitalised) and outpatient (non-hospitalised) treatment of ailments together with the estimates of expenditure incurred on treatment of ailments and the sources of finance.

For the health-seeking behaviour analysis, we used the information on spells of ailments of household members during the last 15 days (including hospitalisation). Ailment, i.e. illness or injury, means any deviation from the state of physical and mental well-being. An ailment may not cause any hospitalisation, confinement to bed or restricted activity. An ailing member is a normal member of the household who was suffering from any ailment during the reference period. Taking into consideration the available data, health-seeking behaviour is characterised as (i) *Medical treatment* (ii) *Self-care* (iii) *Any-care* (iv) *No-care* for the purpose of analysis. *Medical treatment* is deemed to have occurred if he/she has consulted a doctor anywhere (in OPD of a hospital, community health centre, primary health centre/sub-centre, dispensary, doctor's chamber, private residence, etc.) and obtained medical advice on his/her ailment. Acting on the advice of non-medical persons such as friends, relatives, pharmacists, etc., is considered as *Self-care and Any-care* includes both medical and non-medical treatment.

For healthcare burden, we have considered the cost of inpatient services for our analysis because it is a huge part of the total health expenditure of a household. The expenses incurred on

treatment as inpatient of a hospital during the last 365 days have been used for healthcare burden analysis. Total inpatient healthcare expenditure comprises both medical and other expenses incurred by the household including transport charges, lodging charges of ailing person, escort and others. Sources of finance for meeting the inpatient expenses are household income/savings, borrowings, contributions from friends and relatives, sale of jewellery and other physical assets, cattle etc.

The variables – treatment taken on medical advice or not, treatment taken from government hospital or not, reasons for not availing treatment from government source, reason for no treatment and who was consulted – have been considered for healthcare-seeking behaviour analysis. Household healthcare burden (inpatient) was calculated by dividing household per inpatient health expenditure over consumption expenditure in a year. Percentage, mean, confidence interval (CI), logistic regression have been used while analysing data.

Results and Discussion

In this section, an attempt is made to discuss the issue of healthcare-seeking behaviour, healthcare burden and source of finance for healthcare expenditure with reference to various socio-economic characteristics of the households.

1. *Healthcare-Seeking Behaviour*

Figure 1 (in Appendix) provides details of healthcare-seeking behaviour for the reported 958 cases of illness. Out of them around 78.3 per cent (750 cases) reported taking medical advice (either government or private), 21.7 per cent (208 cases) have not taken any medical advice. Financial constraints account 31 per cent (highest) of cases not seeking medical advice. Approximately 48 per cent of the 208 cases have not taken any care while 52 per cent have consulted self/friend, medical shop salespersons and others. As many as 294 cases, out of 750 (39.1%) cases have not taken treatment at government institutions because it is not satisfactory (35.4%). This implies that people feel compelled to choose expensive treatment from the private sector.

Table 2 gives the percentage of people, suffering from illness during a period of 15 days prior to the date of interview, seeking medical treatment against self-care in Orissa compared to its neighbouring states, developed states and at the All-India level. Only 89 out of 100 sick people go for medical treatment in Orissa compared to the All-India average of 93. It lags behind not only many developed States (Kerala - 94.1%, Punjab - 97.9%, Gujarat - 97.3%, Maharashtra - 96.4% and Tamilnadu - 91.2%) but also its neighbouring states like Jharkhand (97.8%), Andhra Pradesh (93.7%) and Bihar (91.6%). We can see a clear picture of medical treatment-seeking behaviour across socio-economic groups in Table 3. It is evident that a very low percentage of people from urban areas, higher in social, educational and economic background go for self-treatment. However, little difference is found on gender basis.

Figure 1: A General Overview of Care-seeking Behaviour in Orissa

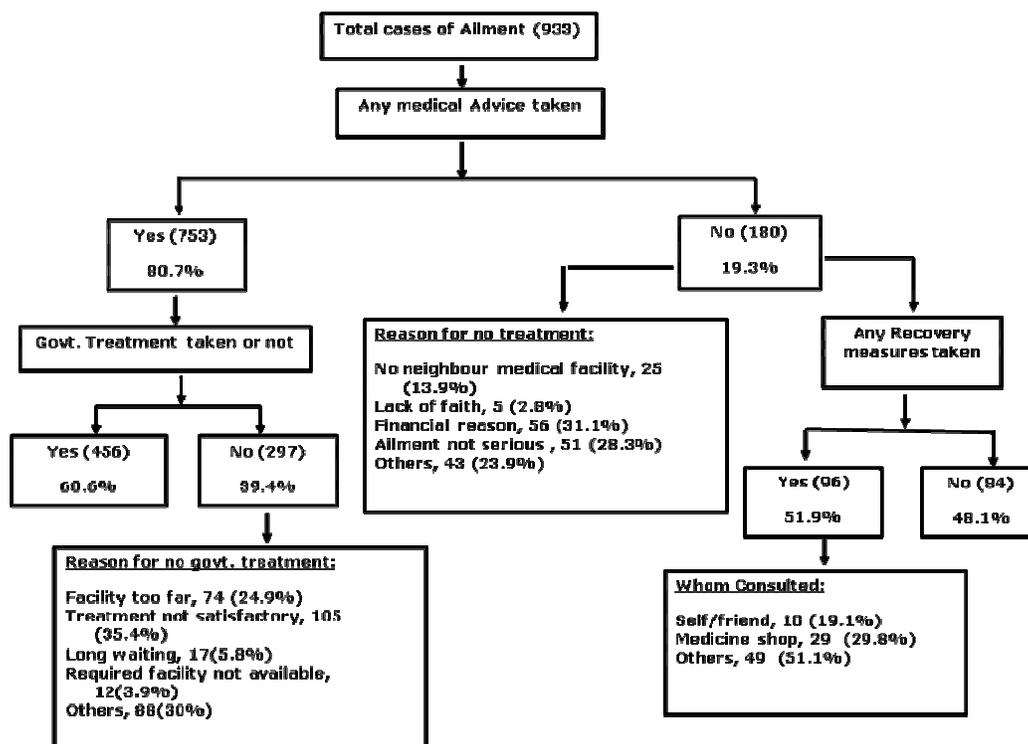


Table 2: Percentage of People Seeking Medical Treatment Against Self-care in Orissa Compared its Neighbouring States to Developed States, and at All-India Level

| Name of the States | Medical Treatment (%) | Self-care (%) | Total (%) | Total no. of Cases |
|----------------------------|-----------------------|---------------|------------|--------------------|
| <i>Developed States</i> | | | | |
| Kerala | 94.1 | 5.9 | 100 | 3352 |
| Punjab | 97.9 | 2.1 | 100 | 1080 |
| Gujarat | 97.3 | 2.7 | 100 | 1191 |
| Maharashtra | 96.4 | 3.6 | 100 | 3291 |
| Tamilnadu | 91.2 | 8.8 | 100 | 2298 |
| <i>Neighbouring States</i> | | | | |
| Bihar | 91.6 | 8.4 | 100 | 1196 |
| West Bengal | 89.0 | 11.0 | 100 | 3119 |
| Jharkhand | 97.8 | 2.2 | 100 | 371 |
| Andhra Pradesh | 93.7 | 6.3 | 100 | 2798 |
| Orissa | 88.9 | 11.1 | 100 | 844 |
| India | 93.0 | 7.0 | 100 | 35515 |

Source: Author's Calculation

Table 3: Percentage of People Seeking Medical Treatment Against Self-care Across Socio-Economic Groups in Orissa

| | Medical Treatment (%) | Self-care (%) | Total (%) | Total no. of Cases |
|---------------------------|-----------------------|---------------|------------|--------------------|
| Place of Residence | | | | |
| Rural | 87.9 | 12.1 | 100 | 679 |
| Urban | 92.7 | 7.3 | 100 | 165 |
| Sex | | | | |
| Male | 88.7 | 11.3 | 100 | 442 |
| Female | 89.1 | 10.9 | 100 | 402 |
| Social Group | | | | |
| ST | 74.6 | 25.4 | 100 | 126 |
| SC | 92.3 | 7.7 | 100 | 181 |
| OBC | 90.6 | 9.4 | 100 | 339 |
| Others | 91.9 | 8.1 | 100 | 198 |
| Educational level | | | | |
| Below Primary | 88.0 | 12.0 | 100 | 589 |
| Primary | 86.6 | 13.4 | 100 | 67 |
| Secondary & above | 92.6 | 7.5 | 100 | 188 |
| MPCE (Quintile) | | | | |
| Poorest | 78.7 | 21.3 | 100 | 183 |
| poorer | 87.1 | 12.9 | 100 | 155 |
| Middle | 87 | 13 | 100 | 169 |
| Richer | 96.5 | 3.5 | 100 | 170 |
| Richest | 95.8 | 4.2 | 100 | 167 |
| Total | 88.9 | 11.1 | 100 | 884 |

Source: Author's Calculation

We can observe another important aspect of health-seeking behaviour – seeking any care against no care, which is shown in Table 4 for Orissa compared to its neighbouring States, developed States and the All-India level. Only 88 out of 100 people suffering from any illness in Orissa go for any care against no care, whereas for All-India it is around 92 out of 100. Orissa is way behind the developed States as well as its neighbouring States. With respect to socio-economic groups, Table 5 shows that more rural (12%) and socio-economically backward people (Scheduled Tribe - 25%, Scheduled Caste - 11%, below primary educated - 14%, poorest 16% and poor and 9%) opt for no care rather than any care. Largely, financial constraint is the main reason (31.1%) given by the people for not taking any care (Table 6). People in urban areas (54.5%), socially (OBC - 30% and Others - 41%) and economically (Middle - 41.5% and Richest - 44.5%) also complain of financial constraint as the major reason compared to their counterparts. On the other hand, rural, socially and economically backward people pointed out to the lack of medical facility nearby as major reason for not taking any care. The possible reason for this contrasting result could be that the facility available in urban areas is expensive too. Another reason could be that the consumption level does not represent true income or wealth level and thus, it does not reflect the true pattern of health-seeking behaviour. Nevertheless, we can have a better picture of what actually determines the health-seeking behaviour through regression analysis provided in Table 6.

Table 4: Percentage of People Seeking any Care Against No Care in Orissa Compared to Its Neighbouring States, Developed States and All India Level

| <i>Name of the States</i> | Any Care Taken (%) | No Care At all (%) | Total (%) | No. of cases |
|----------------------------|---------------------------|---------------------------|------------------|---------------------|
| <i>Developed States</i> | | | | |
| Kerala | 94.2 | 5.8 | 100 | 3557 |
| Punjab | 96.0 | 4.0 | 100 | 1125 |
| Gujarat | 91.3 | 8.7 | 100 | 1304 |
| Maharashtra | 94.0 | 6.0 | 100 | 3501 |
| Tamilnadu | 91.2 | 8.8 | 100 | 2521 |
| <i>Neighbouring States</i> | | | | |
| Bihar | 88.3 | 11.7 | 100 | 1355 |
| West Bengal | 92.0 | 8.0 | 100 | 3390 |
| Jharkhand | 92.3 | 7.7 | 100 | 402 |
| Andhra Pradesh | 90.3 | 9.7 | 100 | 3097 |
| Orissa | 88.1 | 11.9 | 100 | 958 |
| India | 91.5 | 8.5 | 100 | 38803 |

Source: Author's calculation

Table 5: Seeking Any Care vs. No Care at all across socio-economic groups in Orissa

| | Any Care Taken (%) | No Care At all (%) | Total (%) | No. of cases |
|---------------------------|---------------------------|---------------------------|------------------|---------------------|
| <i>Place of Residence</i> | | | | |
| Rural | 87.5 | 12.5 | 100 | 776 |
| Urban | 90.7 | 9.3 | 100 | 182 |
| <i>Sex</i> | | | | |
| Male | 89.1 | 10.9 | 100 | 496 |
| Female | 87.0 | 13.0 | 100 | 462 |
| <i>Social Group</i> | | | | |
| ST | 75.0 | 25.0 | 100 | 168 |
| SC | 89.2 | 10.8 | 100 | 203 |
| OBC | 91.4 | 8.6 | 100 | 371 |
| Others | 91.7 | 8.3 | 100 | 216 |
| <i>Educational level</i> | | | | |
| Below Primary | 86.0 | 14.0 | 100 | 685 |
| Primary | 92.6 | 7.4 | 100 | 204 |
| Secondary & above | 95.5 | 4.5 | 100 | 67 |
| <i>MPCE (Quintile)</i> | | | | |
| Poorest | 83.8 | 16.2 | 100 | 525 |
| Poorer | 90.9 | 9.1 | 100 | 175 |
| Middle | 96.2 | 3.8 | 100 | 104 |
| Richer | 95.3 | 4.7 | 100 | 106 |
| Richest | 91.7 | 8.3 | 100 | 48 |
| Total | 88.1 | 11.9 | 100 | 958 |

Source: Author's Calculation

Table 6: Reasons for Not Taking Medical Advice across Socio-economic Groups in Orissa

| | No Medical Facility Nearby | Lack of Faith | Financial Reasons | Ailment not Serious | Others | Total (%) | Total no of cases |
|---------------------------|----------------------------|---------------|-------------------|---------------------|-------------|------------|-------------------|
| Place of Residence | | | | | | | |
| Rural | 15.2 | 1.3 | 27.8 | 29.7 | 25.9 | 100 | 158 |
| Urban | 4.5 | 13.6 | 54.5 | 18.2 | 9.1 | 100 | 22 |
| Social Group | | | | | | | |
| ST | 31.9 | 0 | 21.7 | 23.2 | 23.2 | 100 | 69 |
| SC | 0 | 3.2 | 45.2 | 25.8 | 25.8 | 100 | 31 |
| OBC | 5.7 | 7.5 | 30.2 | 30.2 | 26.4 | 100 | 53 |
| Others | 0.0 | 0.0 | 40.7 | 40.7 | 18.5 | 100 | 27 |
| MPCE (Quintile) | | | | | | | |
| Poorest | 26.6 | 5.1 | 27.8 | 24.1 | 16.5 | 100 | 79 |
| 2nd | 3.6 | 0 | 28.6 | 28.6 | 39.3 | 100 | 28 |
| 3rd | 4.9 | 0 | 41.5 | 36.6 | 17.1 | 100 | 41 |
| 4th | 4.3 | 4.3 | 21.7 | 26.1 | 43.5 | 100 | 23 |
| Richest | 0 | 0 | 44.5 | 33.3 | 22.2 | 100 | 9 |
| Total | 13.9 | 2.8 | 31.1 | 28.3 | 23.9 | 100 | 180 |

Source: Author's Calculation

The influence of various demographic and socio-economic variables on the decision of whether or not to seek care was analysed with multivariate logistic regression. The findings are provided in Table 6. Household size, social group and increased economic status were all statistically significant factors that increased the probability of seeking health care. Increasing the size of the household by one person increases the probability of seeking any care by 0.7%. The oldest group of individuals (aged 66 years and older) are 9.3 per cent less likely ($p < 0.01$) to seek any care than the youngest group (aged 0-3 years). Persons from Scheduled Caste (SC), Other Backward Caste (OBC) and others (general caste) are more likely to seek any care compared to persons belonging to Scheduled Tribes (ST). The decision to seek any care is significantly influenced by the economic situation of the household and increases from the poorest to the richest quintiles. Gender, place of residence and educational level does not have any impact in taking such a decision.

The influence of different demographic and socio-economic variables on the decision to seek care from a medical provider versus self-treating is presented in the third column of Table 7. The SC and OBC are more likely to seek treatment from a provider more often than ST, who prefers self-treatment. People from higher economic groups prefer medical providers rather than self-treatment. With the increase in economic status from poorest to richer and richest, the likelihood of seeking medical treatment increases by around 16 per cent. The likelihood of seeking medical care also increases significantly to around 12.5 per cent with the increase in household size by one unit because in rural areas, joint families still exist and are wealthy too. From Table 8, we can see the predicted value of healthcare-seeking behaviour (medical vs self and any care vs no care) while imposing ideal conditions of individual characteristics. The predicted value of seeking any care against no care is lower (0.80) when the person is from rural area, ST category, female, below primary educated and lowest consumption quintile. A similar pattern is observed in the case of seeking medical care versus self-care.

Table 7: Logistic Regression Showing Variables Influencing Health-seeking Behaviour among those Reporting Being Ill during Last 15days Prior to Interview in Orissa

| Explanatory Variables | Any Care vs. No Care at all (N=933 ³) | | Medical Care vs. Self Care (N=844) | |
|--------------------------------------|---|------------------|------------------------------------|------------------|
| | Coefficients | Marginal Effects | Coefficients | Marginal Effects |
| Household size (continuous variable) | 0.085* | 0.007 | 0.125** | 0.011 |
| Place of Residence | | | | |
| Rural [®] | | | | |
| Urban | -0.297 | -0.025 | -0.362 | -0.036 |
| Social Group | | | | |
| ST [®] | | | | |
| SC | 0.705** | 0.067 | 1.114** | 0.110 |
| OBC | 0.929*** | 0.083 | 0.756** | 0.083 |
| Others | 0.753* | 0.071 | 0.645 | 0.073 |
| Sex | | | | |
| Male [®] | | | | |
| Female | -0.134 | -0.011 | 0.163 | 0.015 |
| Age Group | | | | |
| 0--3 [®] | | | | |
| 4--14 | -0.465 | -0.033 | -0.515* | -0.048 |
| 15--65 | -0.274 | -0.018 | -0.135*** | -0.011 |
| 66+ | -1.059*** | -0.093 | -0.395*** | -0.036 |
| MPCE (Quintile) | | | | |
| Poorest [®] | | | | |
| Poorer | 0.608* | 0.057 | 0.452 | 0.061 |
| Middle | 0.175 | 0.019 | 0.502* | 0.067 |
| Richer | 0.720** | 0.065 | 1.923*** | 0.166 |
| Richest | 2.557** | 0.128 | 1.971*** | 0.167 |
| Educational Level | | | | |
| Below Primary [®] | | | | |
| Primary | 1.106 | 0.066 | -0.467 | -0.048 |
| Secondary & above | 0.682 | 0.047 | 0.062 | 0.005 |
| Constant | 1.063 | | 0.276 | |

Source: Author's Calculation

*p<0.10; **p<0.05; ***p<0.01; [®] Reference category

³ Total no of cases (N=933) have been arrived after excluding the missing cases from a total of 958 cases who reported ill during last 15 days prior to date of survey.

Table 8: Predicted Value of Seeking Healthcare Given the Ideal Condition of Individual Characteristics

| Ideal Type | Predicted Value of | |
|---|--------------------------------|------------------------------------|
| | Seeking Any Care [95% C.I.] | Seeking Medical Care [95% C.I.] |
| Rural, ST, female, below primary education and poorest consumption quintile | 0.80 [0.731 - 0.861] | 0.79 [0.728 - 0.858] |
| Urban, other caste, male, secondary and above education, richest consumption quintile | 0.96 [0.924 - 0.989] | 0.98 [0.966 - 0.999] |

Source: Author's Calculation

2. Health Expenditure and Its Burden

Household expenditure on medical care is analysed for those who have sought inpatient (or hospitalised cases) services only because it accounts for a huge share in both total health expenditure as well as total consumption expenditure of the household. A comparative picture of health expenditure (in ₹) because of hospitalisation (inpatient care) and healthcare burden of Orissa, its neighbouring states, developed states and All-India level is shown Table 9. On an average, expenditure per inpatient care amounts to ₹ 6,458 in Orissa, well below the national average of ₹ 8,906.50. The amount is also compared to Orissa's neighbouring and developed States. However, if we consider per inpatient expenditure in relation to total household consumption expenditure, defined as healthcare burden, it is reasonably high (20.5%) for Orissa compared to its neighbouring states (West Bengal, Jharkhand and Andhra Pradesh except Bihar), developed states (Maharashtra, Gujarat, Kerala and Tamilnadu) and All-India average (18.8%).

At a disaggregate level a rural household spends ₹ 5,692 per hospitalisation case during a year while an urban household spends for ₹ 8,466 (Table 10). Social groups that are socially advantaged spend almost thrice and twice that of Scheduled Tribes and Scheduled Castes respectively. A person from richest consumption bracket spends the highest amount (around ₹ 10,750) and the poorest the lowest amount (₹ 2,828). People availing government hospital facilities spend ₹ 4,955 on an average. A private hospital will charge ₹ 11,761 per hospitalisation. On the other hand, in relative terms it is a different picture altogether. If we consider health care burden as a share of health expenditure (per hospitalisation) to total consumption expenditure during a year, the burden seems to be heavier for socio-economically disadvantaged people. Rural households spend 24 per cent of their total consumption expenditure for inpatient expenditure while in urban areas it is only 15 per cent. The poor and poorest spend the highest percentage (around 29% and 28% respectively) than the richer and richest (24.8% and 14.3% respectively). A similar pattern exists between socially dis-advantaged (SC and ST) and advantaged groups (others). The relative burden of hospitalisation is higher in case of the people availing private hospital facilities (31.3%).

Table 9: Average Expenditure (in Rupees) Per Inpatient (IP) Case on Account of Hospitalisation and Healthcare Burden in Orissa Compared to Developed States, Neighbouring States and India

| Name of the States | Avg. Expd. per IP case During last 365 days (in ₹) | YCE (in ₹) | Healthcare ⁴ Burden (in %) |
|-----------------------------------|--|----------------|---------------------------------------|
| <i>Developed States</i> | | | |
| Kerala | 6549.3 | 51073.7 | 12.8 |
| Punjab | 17651.1 | 67335.6 | 26.2 |
| Gujarat | 8402.2 | 52528.0 | 16.0 |
| Maharashtra | 9631.8 | 52330.9 | 18.4 |
| Tamilnadu | 9717.1 | 40420.8 | 24.0 |
| <i>Neighbouring States</i> | | | |
| Bihar | 9562.0 | 38004.4 | 25.2 |
| West Bengal | 7776.5 | 44198.2 | 17.6 |
| Jharkhand | 6893.5 | 44860.5 | 15.4 |
| Andhra Pradesh | 7980.2 | 40297.4 | 19.8 |
| Orissa | 6458.0 | 31491.7 | 20.5 |
| India | 8906.5 | 47282.0 | 18.8 |

Source: Author's calculation

Table 10: Average Expenditure (in ₹) Per Inpatient (IP) Case on Account of Hospitalisation and Healthcare Burden Across Socio-economic Groups in Orissa

| | Avg. Expenditure per IP case during last 365 days (in ₹) | YCE (in ₹) | Health Care Burden (in %) |
|----------------------------------|--|----------------|---------------------------|
| <i>Place of Residence</i> | | | |
| Rural | 5929 | 24761.7 | 23.9 |
| Urban | 8466.2 | 57042.0 | 14.8 |
| <i>Social Group</i> | | | |
| ST | 3634.1 | 20108.0 | 18.1 |
| SC | 4132.4 | 25569.7 | 16.2 |
| OBC | 7002.3 | 32683.8 | 21.4 |
| Others | 9811.7 | 43739.6 | 22.4 |
| <i>YCE (Quintile)</i> | | | |
| Poorest | 2827.626 | 10060.7 | 28.1 |
| poorer | 4826.211 | 16807.1 | 28.7 |
| Middle | 5412.333 | 23648.4 | 22.9 |
| Richer | 8667.426 | 34901.9 | 24.8 |
| Richest | 10750.16 | 75125.7 | 14.3 |
| <i>Types of Hospital</i> | | | |
| Govt. | 4955.2 | 29802.3 | 16.6 |
| Pvt. | 11761.0 | 37522.3 | 31.3 |
| Total | 6458.0 | 31491.7 | 20.5 |

Source: Author's calculation

⁴ Healthcare Burden = [Average total expenditure (Rs.) for hospitalised treatment per hospitalisation case during a period of 365 days/Yearly Consumption Expenditure (YCE in Rs.)]*100

3. *Source of Finance for Health Expenditure:*

Lack of efficient health financing measures forces households to embark on various coping strategies. Some of the coping strategies lead to household indebtedness and impoverishment. Table 12 depicts the distribution of sources of finance for inpatient healthcare expenditure in Orissa compared to its neighbouring States, developed States and All-India level. Borrowing is the second most (comprising around 37% of total expenditure) common measure after income/savings to finance inpatient health expenditure. On an average, the people of Orissa depend more on borrowing compared the people of the developed States and poor neighbouring states like West Bengal, Bihar and Jharkhand.

A clear picture of how households across socio-economic groups adopt various coping mechanisms is given in Table 12. On an average, irrespective of socio-economic status, households meet around 46 per cent of total inpatient cost through borrowing and other sources (including sale of jewellery, other physical assets, cattle etc.). This implies that in Orissa, on an average, borrowing and selling productive and valuable assets are common phenomena while financing hospitalisation expenditure. Urban households are less dependent on borrowings (15.2 %) and other sources (2.4 %) compared to their rural counterparts (borrowings-41%, others-11.5%). Socially and economically advantaged households depend more upon their income/savings than borrowings and other sources than that of the disadvantaged.

Table 11: Distribution of Sources of Financing Inpatient Healthcare Expenditure in Orissa Compared to Developed States, Neighbouring States and All-India (all figures are in %)

| States | Income/ Savings | Borrowing | Contribution | Others | Total |
|-------------------------|--------------------|-------------|--------------|------------|------------|
| <i>Developed States</i> | | | | | |
| Kerala | 40.6 | 41.2 | 12.7 | 5.5 | 100 |
| Punjab | 49.9 | 21.0 | 25.6 | 3.5 | 100 |
| Gujarat | 48.8 | 23.5 | 23.6 | 4.0 | 100 |
| Maharashtra | 51.3 | 27.9 | 12.7 | 8.1 | 100 |
| Tamil Nadu | 40.0 | 39.3 | 8.6 | 12.1 | 100 |
| <i>Neighbour states</i> | | | | | |
| Bihar | 46.8 | 28.7 | 12.7 | 11.7 | 100 |
| West Bengal | 51.7 | 28.5 | 11.7 | 8.1 | 100 |
| Jharkhand | 60.2 | 26.9 | 10.6 | 2.3 | 100 |
| Andhra Pradesh | 38.4 | 47.0 | 8.7 | 5.8 | 100 |
| Orissa | 45.2 | 36.8 | 9.1 | 9.0 | 100 |
| India | 49.2 | 31.8 | 12.6 | 6.4 | 100 |

Source: Author's Calculation

Table 12: Sources of Financing Inpatient Healthcare Expenditure Across Place of Residence, Social Group and Consumption Groups (all figures are in %)

| | Income/ Savings | Borrowing | Contribution | Others | Total |
|---------------------------|----------------------------|------------------|---------------------|---------------|--------------|
| <i>Place of Residence</i> | | | | | |
| Rural | 40.8 | 41.0 | 6.7 | 11.5 | 100 |
| Urban | 56.8 | 25.6 | 15.2 | 2.4 | 100 |
| <i>Social Group</i> | | | | | |
| ST | 58.8 | 29.9 | 4.2 | 7.1 | 100 |
| SC | 31.8 | 54.2 | 5.2 | 8.7 | 100 |
| OBC | 41.5 | 43.7 | 7.8 | 6.9 | 100 |
| Others | 51.2 | 23.1 | 13.4 | 12.2 | 100 |
| <i>MPCE (Quintile)</i> | | | | | |
| Poorest | 33.4 | 47.0 | 11.2 | 8.3 | 100 |
| poorer | 33.0 | 45.0 | 6.1 | 15.8 | 100 |
| Middle | 38.3 | 41.4 | 10.8 | 9.5 | 100 |
| Richer | 42.1 | 38.6 | 6.8 | 12.5 | 100 |
| Richest | 60.4 | 26.2 | 11.2 | 2.3 | 100 |
| Total | 45.2 | 36.8 | 9.1 | 9.0 | 100 |

Source: Author's Calculation

Summary and Conclusion

The major findings of the study can be summarised as follows:

- Out of 100 people reporting illness, only 78.3 per cent took medical advice out of which a substantial 39.1 per cent opted for treatment at private facilities and 35.4 per cent cited unsatisfactory treatment as the main reason for avoiding a government facility. This implies that the people are compelled to go to private hospitals unmindful of the cost. Financial constraint (31%) is the major reason for not taking medical advice or treatment from either government or private facilities. Out of total number of persons who did not take medical advice, 48 per cent did not taken any treatment at all.
- Only 89 out of 100 sick persons go for medical treatment in Orissa compared to the national average of 93. It lags behind many developed States like Kerala, Punjab, Gujarat, Maharashtra and Tamilnadu and, neighbouring States like Jharkhand, Andhra Pradesh and Bihar.
- A large proportion of people from socio-economically disadvantaged groups prefer self-treatment.
- Only 88 out of 100 people suffering from an illness in Orissa go for any care against no care, whereas for All-India it is around 92 out of 100. Socio-economic backwardness is the main reason why people opt for No-care rather than Any-care. Lack of adequate financial resources is the main reason (31.1%) for the people not taking any care.

- From logistic regression, we found that the decision to seek Any-care is significantly influenced by the socio-economic variables like income levels and social groups. Gender, place of residence and educational level do not have an impact on the decision.
- A similar kind of result is also apparent when treatment is sought from medical providers rather than self-treatment. People from higher economic and social class prefer medical providers to self-treatment. With an increase in economic and social status, the likelihood of seeking medical treatment also increases.
- The predicted value of seeking any care against no-care is lower (0.80) among the persons from rural areas, STs, women, below primary educated and lowest consumption quintile. A similar pattern is observed in case of seeking medical care versus self-care.
- The healthcare burden borne by socio-economically disadvantaged groups is heavier. Rural households spend a higher percentage (24%) of their total consumption expenditure for inpatient expenditure compared to urban households (15%). The poor and poorest spend the highest percentage (around 29% and 28% respectively) compared to the richer and richest (24.8% and 14.3% respectively). A similar pattern exists between socially dis-advantaged (SC and ST) and advantaged groups (others). Moreover, the relative burden of hospitalisation is heavier in case of the people availing facilities in private (31.3%) rather than public hospitals (16.6%).
- Borrowing is the second most (around 37% of total expenditure) common mechanism after income/savings to pay for inpatient healthcare. On an average, people in Orissa, depend more on borrowing than those in developed States and its poor neighbouring states like West Bengal, Bihar and Jharkhand.
- On an average, irrespective of socio-economic status, households meet around 46 per cent of total inpatient cost by borrowing money and other sources (sale of ornaments and other physical assets, cattle etc.). This implies that in Orissa, on an average, borrowing and selling productive and valuable assets are common means of meeting hospitalisation expenditure. Urban households are less dependent on borrowings (15.2 %) and other sources (2.4 %) compared to their rural counterparts (borrowings - 41%, others-11.5 %). Socially and economically dis-advantaged households depend more on borrowings and other sources.

Policy Implications

Based on the present study, we want to make some policy suggestions to help policy makers improve the health indicators of Orissa.

Since socio-economically disadvantaged groups fall behind in terms of healthcare utilisation and experience heavier healthcare burden besides depending more on inefficient mechanisms to finance their healthcare expenditure, the Government of Orissa has to increase its expenditure on the health sector substantially to achieve the desired outcomes.

While the government is willing to provide better healthcare in a socially equitable, accessible and affordable manner to improve the health status of the people within a reasonable timeframe that is mentioned in its integrated Health Policy 2002 and Orissa vision 2010, it should spend a larger proportion of its total GSDP on the social/health sector. The Orissa government's expenditure on health

sector is not encouraging and goes against the government's purpose of improving healthcare in the state. Health expenditure remained at around 1 per cent of GSDP from 1996-97 to 2006-07 in Orissa. However, as a percentage of total State spending, it has declined in actual terms from 4.66 per cent in 1996-97 to 3.98 per cent in 2005-06. This decline was particularly evident after 2000-01 when the State government introduced a number of fiscal consolidation measures to arrest a fiscal crisis arising from a mismatch between revenue receipts and revenue expenditure (Sari, 2010) and probably due to the introduction of the Central government funded National Rural Health Mission (NRHM) scheme.

Because of the poor funding, the quality healthcare has fallen way below expectation. It has been inaccessible to many, entailed informal payments and increased out-of-pocket expenditure. Moreover, the user fee introduced for tertiary care (diagnostics, special accommodation and transportation) in 1991 comprises a huge share in the total healthcare expenditure. All these factors are leading to an increase in unwanted hesitation in the healthcare-seeking practice of the people of Orissa.

Nevertheless, as far as healthcare financing is concerned it is inevitable that healthcare cannot be user fee- free and consumer has to pay some kind of fee for efficient as well as sustainable healthcare system as a whole. Taking consideration of all these issues, health insurance is seen as one of the best options for obtaining additional resources for the financing of healthcare without discouraging the poor and the vulnerable groups from seeking care when they need it. Health insurance has the potential of generating substantial funds for equitable health care. Government's funds so saved could then be diverted to the development and expansion of primary healthcare services and related infrastructure. It is a way of improving quality and access to healthcare as well as managing resources more efficiently.

As far as health insurance is concerned, a very limited number of people are covered under health insurance schemes in Orissa. Only 2 per cent of the households in Orissa have any kind of health insurance that covers at least one member of the household. Medical reimbursement from employers (23.4%), the Employee State Insurance Scheme (22.2%), other health insurance through the employer (16.1%) and private commercial health insurance (15.7%) dominate the list. Only eight per cent of urban households are covered by some health insurance. Health insurance coverage among rural households is rare (0.6% of total rural population). Ten per cent of households in the highest wealth quintile have some type of health insurance (NFHS-3 report on Orissa; 2008). However, in recent times the introduction of the Rastriya Swasthya Bima Yojana (RSBY), a central government sponsored scheme has given hope to the poorer sections. Yet due lack of awareness and fraudulent practices of the providers it has not delivered the desired outcome.

As far as health insurance as a policy instrument is concerned, we have a few suggestions:

- (a) Orissa government should universalise a health insurance scheme through a basic benefit package either by upgrading the RSBY scheme following the model of Kerala and Uttarakhand or
- (b) Like other state governments (Gujarat, Tamilnadu, Andhra Pradesh, Karnataka etc.) in India, Orissa government should provide an innovative higher coverage amount for life-saving voluntary health insurance to the targeted groups/vulnerable groups (particularly rural low income and socially backward class).

- (c) Government should scale up RSBY along with awareness.
- (d) It should also come up with favourable plans and policies for the NGOs as well as private players to provide innovative low cost micro health insurance for the disadvantaged groups in the State.
- (e) For better functioning of the health insurance scheme in the near future and the health sector as a whole, government should upgrade quality of primary and secondary level healthcare system.
- (f) Moreover, awareness regarding health insurance should be enhanced among rural persons (since almost 85% of total people live in rural area).

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