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OUT-OF-POCKET AND CATASTROPHIC HEALTH EXPENDITURE: A CROSS-SECTIONAL ASSESSMENT OF A RURAL DISTRICT OF THE STATE OF JHARKHAND IN INDIA

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AUTHORS' CONTRIBUTIONS

This work was carried out in collaboration between all authors. Authors RKS and KC designed the study, did the literature search, and organized the field study. Authors RKS and KC did the preliminary analysis. Author RKS wrote the first draft and collated all inputs from other authors. Authors NN and PKT gave critical inputs and insights into the article. All authors read and approved the final manuscript.

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ABSTRACT

Background: India aims at providing universal health coverage, at least at the primary health care level to make quality health care affordable and accessible. An elaborate system of public health is in place, yet in India, out-of-pocket health expenditure constitutes a major source of health care finance for the households, often leading to catastrophic consequences.

Methods: The study aimed at examining the recent pattern of out-of-pocket health expenditure for in-patient and out-patient care using the primary data collected from 986 households in Koderma district of Jharkhand state in India. A multi-staged sampling method was followed to select households with cases of in-patient care and child birth in the last one year and cases of out-patient care in the last 30 days. Cost components for both in-patient and out-patient care were disaggregated for both public and private health care services to understand the burden of costs for different components. Data was also collected on how the families financed these expenses and whether there were catastrophic headcounts from out of pocket financing. The reach and effectiveness of government health insurance programs to cushion against catastrophic expenses was also examined.

Findings: The study found that 71 percent families faced catastrophic situation (medical expense exceeding 40% of all household's non-food expenses, as per WHO definition) for inpatient care. This situation was more noticeable in cases where services of private health care (includes private doctors, nursing homes, private clinics, hospitals run by private agencies, trust or charitable organisations, but excludes informal providers like unlicensed informal practitioners) was availed, where the cost was more than double of that in public facilities (includes any health facility run by government). Yet 73 percent of the total out-patient cases and 90 percent of the total in-patient cases were availed from private health facilities. Treatments in private health care facilities exclude cases treated by the informal providers.

It was also seen that the cost of drugs constituted more than half of the total out-of-pocket health expenditure. The penetration of any health insurance including the publicly financed health insurance policy was found to be negligible (35 out of 986 families) and even those households enrolled in any of the health insurance policy and

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incurring out-of-pocket health expenditure for in-patient care did not get any financial benefit from such policies. The burden of out-of-pocket expenditure on out-patient care was also found to be very high and catastrophic in nature and for which there was no insurance coverage. The high proportion of such out-of-pocket health expenditure is regressive in nature knowing that a very high proportion of the households in rural or semi urban settings are poor.

Conclusions: In this backdrop there is an urgent need for increasing public expenditure on health care and stronger and effective regulatory mechanisms to make quality health care affordable and accessible to all, particularly the poorest and most vulnerable sections.

Keywords: Out-of-pocket expenditure; catastrophic health expenditure; in-patient care; out-patient care; public health care provider; private health care provider; health insurance.

1. INTRODUCTION

Share of government expenditure on public health goods and services is one of the key indicators to show the government's commitment on health as core public function [1]. India's National Health Accounts 2004-05¹ shows that the total expenditure on health is merely 4.2 percent of the GDP compared to other developing or developed nations like Mexico, Brazil, UK, Canada, France, Germany etc. where it is between 7 to 11 percent of their respective GDPs. Of the total expenditure on health, government spends approximately 1 percent of GDP which is abysmally low if compared with 3 to 4 percent in the aforesaid countries. The remaining is mostly borne by the households themselves. Such expenses borne by families are called out-of-pocket (OOP) health expenditure.

WHO Health Statistics 2012 report shows (refer to Table 1) that there was little change in the pattern of health care financing in India in the 9 years and the out-of-pocket health expenditure were often catastrophic in nature.

Table 1. Comparative picture of health expenditure in India (WHO health statistics 2012)

	2000	2009
Total health expenditure as a part of GDP (in percentage)	4.4	4.2
Share of government expenditure on health (in percentage)	26	30
Out-of-pocket (private) expenditure on health (in percentage)	74	70

WHO defines catastrophic health expenditure as any expense that exceeds 40 percent of the household's

¹ Planning Commission Government of India. National Health Accounts 2004-05. Available: http://planningcommission.nic.in/reports/genrep/health/National_Health_Account_04_05.pdf

capacity to pay or household's non-food consumption expenditure [2] that pushes the families into the vicious cycle of poverty. Catastrophic health expenditures, threaten the household basic needs, constitute a large portion of total household expenditure [3,4]. However, for the resource poor households whose resources are not even sufficient to meet the basic food requirements, any portion of their resources used for meeting health expenditure is catastrophic and makes them more vulnerable and impoverished [4,5]. Health expenditure is one of the very important factors for pushing the families below the poverty line [6,7].

Further, National Sample Survey Office (NSSO) report on health and morbidity for 2004-05² shows that around 72 percent of the out-patient care and 40 to 60 percent of the in-patient care was sought from the private health care facilities. Expenditure in private facilities is much higher compared to care in public facilities [8] yet a preference for the former shows that in spite of high level of poverty, people still opt to bear higher costs of treatment at private facilities in absence of good quality public health facilities and their limited availability [9].

Around two-third of the out-of-pocket health expenditure (OOPE) is spent on ambulatory or out-patient care [10]. The expenditure is also distributed regressively, where the poorer households bear a larger proportion of household expense on health care [11]. This could deter the poor households from seeking care, which in turn may worsen their condition and necessitate resource intensive treatment [12].

Over 90 percent people in India are engaged in unorganised sector with very low remuneration and hardly any social security coverage [13]. They also have higher exposure to health risks. However, due to lack of access to affordable and good quality public health services, and resource constraint in seeking

² Survey on MORBIDITY AND HEALTH CARE: NSS 60th Round of National Sample Survey Office, M/o Statistics and Programme Implementation (MOSPI), Government of India (GOI)

care from private services, the resource poor households demand fewer services and also receive substandard treatment. National Sample Survey Office (NSSO) under Ministry of Statistics and Program Implementation, Government of India data shows that there is an increase in untreated ailing persons in the lowest quintile group in both the rural and the urban areas [14]. Availing health services often leads losing their savings and falling into the debt trap [12,15,16].

NSSO 2004-05 data also shows that 64 percent of poorest households got indebted in meeting high out of pocket expenses for in-patient care. With little protection from health insurances against such catastrophic expenses [17], hospitalization rate in the country has remained more or less constant at around 2.5 percent [7] in spite of a rise in different communicable or non-communicable diseases; giving an indication that there is something wrong with the health sector in India in its ability to confront the problems.

With this background, a cross-sectional study was conducted by Ekjut India in Koderma district of Jharkhand state in India in collaboration with National Health System Resource Centre (NHSRC), New Delhi working under Ministry of Health and Family Welfare (MoHFW), Government of India in 2013. The scope of the study was to understand the current pattern of out-of-pocket health expenditure for in-patient care and out-patient care and also to compare the costs of public and private health providers for rendering these services. The study further explored how the expenses were financed, penetration and benefits of health insurance, burden of costs of in-patient and out-patient cares at the household level and incidence of catastrophic headcounts.

1.1 Sampling Methodology and Sample Size

Jharkhand was carved out of erstwhile Bihar in the year 2000. The State has 24 districts, 33 subdivisions, 247 blocks, 3,979 panchayats and 32,620 villages. The population of 32.96 million (Census 2011) constitutes 2.72 percent of the country's population. The rural population constitutes 76 percent of the total population. The sex ratio of Jharkhand is 947 as compared to national ratio of 940. The literacy rate is at 67.63 percent which is lower by 7 percent from the national average. The infant mortality rate of the state is 38, under-five mortality rate is 55 and maternal mortality ratio is 267 as per Annual Health Survey 2011-12, indicating a dismal picture of the state's health indicators. Infant mortality rate means proportion of children dying before completing one year of age per 1000 live births.

Similarly, under-five mortality is the proportion of children dying before completing 5 years per 1000 live births. Maternal mortality ratio is calculated as number of women dying from pregnancy related causes during pregnancy or during the 42 days of delivery or termination of pregnancy, per 1,00,000 live births. These indicators are used as proxy for overall health conditions of a place.

Around 37 percent of the state's populations are below the poverty line³. Agriculture remains the principal source of livelihood for an overwhelming majority of the population. Only 51.5 percent of the households are having drinking water facility and only 14.5 percent of the households are having latrine facility⁴.

Koderma, otherwise known for mica mines, lies on the Chhotanagpur plateau of Jharkhand state and borders with Navada and Gaya Districts of Bihar and Hazaribag and Giridih of Jharkhand. The district has a population of 716,259 (Census 2011), with 80 percent residing in rural areas. Literacy rate in the District is 67 percent. Sex ratio in the district is 950. Annual Health Survey 2011-12 shows that infant mortality rate of Koderma is 30, neo-natal mortality rate is 20, under-five mortality rate is 38 and maternal mortality rate is 197. Around 55 percent of the district's populations are below the poverty line.

The survey of household health expenditure was conducted in Koderma during the period June to August 2013. Koderma district was selected purposively based on close proximity with the state (refer to Table 2) on three out of four health indicators: contraceptive prevalence rate, percentage of mothers receiving TT immunization, percentage of institutional delivery and percentage of complete immunization among children using DLHS-3 data [18].

As explained in [18], the sample size was 864 households calculated with $p=0.01$ (denotes the anticipated population proportion of hospitalization) and $d=0.02$ (denotes the absolute precision). After accounting for design error and sample error, final sample size calculated was approximately 1000 households.

Again given in [18], for study purpose (Table 3), 23 rural and 5 urban (total 28) First Sampling Units (FSUs) were selected using probability proportion to

³ Press note on Poverty Estimates, 2011-12, Planning Commission, Government of India; July 2013. Available at http://planningcommission.nic.in/news/pre_pov2307.pdf

⁴ District Level Household and Facility Survey (Reproductive and Child Health Project), Government of India; 2007-08. Available online at <http://www.rchiips.org/PRCH-3.html>

size (PPS) sampling method, based on rural-urban population ratio based on 2001 census. The sampling methodology was similar to Health and Morbidity Survey of NSSO.

Table 2. Comparative health indicators of Koderma and Jharkhand

	Jharkhand	Koderma
Contraceptives prevalence rate	36	32
Percentage of mothers receiving TT immunization	54.5	50.3
Percentage of Institutional delivery	17.7	27
Percentage of complete immunization of children	54	48.8

Table 3. Particulars of selected FSUs and households

S. no		Number		
		Total	Rural	Urban
1	Population of Koderma	499403	412654	86749
2	Households in Koderma	85578	78835	6743
3	FSUs selected for the survey	28	23	5
4	Households in FSUs	10143	7778	2365
5	Households Screened in the FSUs	6809	5516	1293
6	Households Selected for interview in the FSUs	986	806	180
7	Individuals in the interviewed households	6629	5454	1175

In the qualifying round, all households from these 28 FSUs were screened on 4 parameters: (a) if any member was hospitalized (in-patient care admitted for at least 24 hours in the hospital) in the last one year; (b) if any member availed out-patient care (any consultation or treatment that did not require hospitalization) in the last 30 days; (c) if there was a childbirth in the household in last 2 years, and, (d) household not falling in any of these categories. A

total of 6809 households (5516 from rural and 1293 from urban areas) were screened in the first round.

The data from this screening round was compiled and categorized for “inpatient”, “outpatient”, “delivery” and “none of these” categories. Through random number generation, households were sampled for in-depth interviews. A total of 36 households were sampled from each FSU. A proportion of 2:1:1:1 was maintained for above four categories of households to get representative sample from each category. A total of 986 households were interviewed (806 from rural and 180 from urban FSUs). Out of 986 houses, 400 were with cases of hospitalisation in the last one year, 196 were those receiving out-patient care in the last thirty days, in 194 houses there was a childbirth in the last two years and 196 were selected where any of the earlier three categories were not reported during the given reference periods. In case any household was not available for interview, a replacement number was generated using random number with replacement to select alternate households for interview.

2. METHODOLOGY

Survey questionnaire adapted from standardized National Sample Survey (NSSO) Health and Morbidity Survey 2004. Dichotomous and close ended multiple choice questions were used in the questionnaire. The questionnaire was translated to local language Hindi, and back translated to English to check for appropriateness of meanings. Tool testing was done thrice to include any locally relevant option, test question sequencing and an option of “other, specify” was added to include any response that was not included in the multiple choice options. Interviewers were hired locally who had previous experience of working for other surveys and who were fluent in local language. A three days training including one day mock survey in field was conducted prior to starting the actual survey. Written consent was obtained from the main respondent prior to interview. Data collected was subjected to scrutiny for appropriateness and completeness every day, and wherever information was found incomplete, the household was visited the next day to complete the gaps. In case of refusal, a replacement number was randomly generated and a new household was interviewed. Ten percent households were re-visited by Supervisors to check quality of data being collected. A mop-up round of survey was done at the end to make up for any shortfall in any of the four categories.

The key elements covered in the survey were household profile to include household size, social group (caste), type of residential house, residence in

urban or rural areas, access to water and sanitation, if the family had been classified as Below Poverty Line (BPL) and profile of each member in terms of gender, age, education status, occupation, whether covered under any kind of health insurance, and self-reported ailments. Other variable studied were health events like in-patient and out-patient treatment and child birth, service providers for these health events, distance from nearest service providers, expenditure incurred on treatment and total household consumption expenditure.

In-patient care included all cases of hospitalization in last one year reference period, from both private and public service providers. Out-patient treatment included all such ailments as reported in the reference period of past 30 days, that did not require any hospitalization, irrespective of whether or not treatment was sought, and who the service providers were. Cases of child birth also included cases of abortion and miscarriage, and were referenced for last one year. Expenditure on consultation, medicines, diagnostics, hospital stay, transportation and informal payments were used for computing treatment cost, but it did not include opportunity cost for ailing person or care-giver. Overall Monthly Household Consumption Expenditure was calculated using cost of food and recurring items in last one month, and cost of non-food items like education, clothing, purchase of any durable item, amusement, conveyance etc. taken for the reference period of past one year and broken down to a proportionate monthly expenditure. Households were ranked into quintiles on basis of monthly per capita household consumption expenditure, after adjusting for family size. To identify the number of households spending health expenditure of catastrophic nature, medical expenditures were classified as catastrophic if the monthly per capita health expenditure exceeded 40% of monthly per capita non-food expenditure.

2.1 Characteristics of the Surveyed Households

8 percent of the sampled households were from Scheduled Tribes, 10 percent from Scheduled Caste, 57 percent were from Other Backward Class and 25 percent of the households were from the general social class. 70 percent of them were dependent on agriculture and labour for their livelihood. 7. 37 percent of the households had a BPL card and 38 percent of the head of the households were illiterate. The average family size was 7.

47 percent households lived in 'Kutchra' houses, 17 percent households had 'Semi Pucca' structures and 37 percent were 'Pucca' houses. 86 percent of the households did not have any latrine facility.

3. RESULTS

3.1 Morbidity and Healthcare Utilization among the Sample Population

774 incidences of illness in last thirty days were reported from 482 sampled households. Of these, providers were visited in 770 cases. There were 417 cases of hospitalization reported by 372 households in the previous one year referenced for the study.

3.2 Care Seeking Pattern in Different Quintiles of Population

NSSO Health Survey 2014⁵, shows inequity in proportion of ailing persons (PAP) reporting, with rural-urban divide and quintile wise distribution of cases. Higher PAP was reported from higher expenditure quintile and from urban areas. In this study we tried to understand the care seeking patterns in different population groups, and to see if care seeking was equitably distributed.

The households were divided into five quintiles based on total household expenditure ranking. Quintile-1 represents the poorest sections while quintile-5 was for the least poor households. The pattern of care seeking for out-patient services was fairly uniformly distributed across quintiles.

The odds of people from quintile-1 receiving out-patient care (refer to Fig. 1) compared to those from quintile-5 considered as benchmark, was 0.7, showing insignificant difference, at 95% confidence interval. The only variation was found for quintile-2 where a significant difference was seen. The analysis however does not tell whether there was a difference in the number of episodes for which care was sought.

The Lorenz Curve and Gini-Coefficient analysis are used to estimate the degree of equality or inequality. In the present study (refer to Fig. 2), the Lorenz curve closely matched with the line of equality, and the Gini coefficient was close to zero, which means that the care seeking pattern for out-patient services was fairly equally distributed among the different quintiles. All the above analyses are consistently showing that pattern of care seeking are equally distributed among the households from different quintiles.

In case of inpatient care (refer to Fig. 3), 45 households from quintile-1 received in-patient

⁵ National Sample Survey Office, Ministry of Statistics and Programme Implementation, Government of India. Key Indicators of Social Consumption in India – Health. NSS 71st Round. 2014. Available: http://www.mospi.nic.in/Mospi_New/site/inner.aspx?status=3&menu_id=31

(hospitalization) services compared to 117 from quintile-5, with a steady rise in hospitalization from most poor to least poor quintiles.

The odds of quintile -1 receiving in service compared to that of quintile -5 was 0.21, for quintile-2, it was 0.21, for quintile-3 0.46 and likewise for quintile 4, it

was 0.54, with significant p-value, at 95% and even 99% confidence interval. This infers that the chances of receiving in-patient care by the lower 4 quintiles were 79% (Q-1), 79% (Q-2), 54% (Q-3), and 46% (Q-4), lower compared to the least poor quintile (Q-5), which has been taken as benchmark.

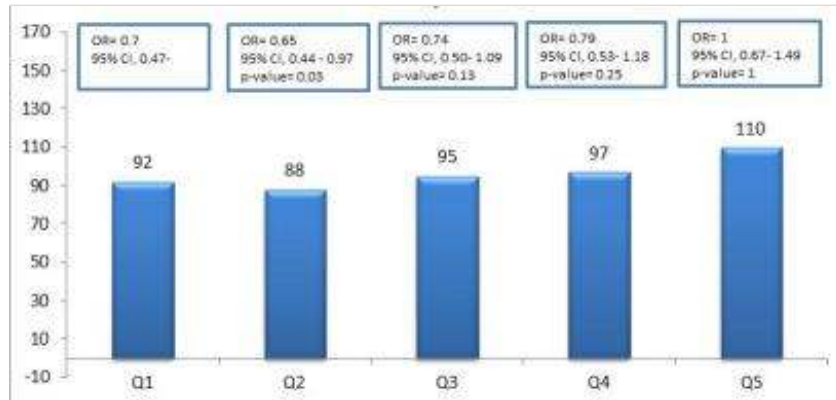


Fig. 1. Quintile-wise HHs received out-patient services in the last 30 days

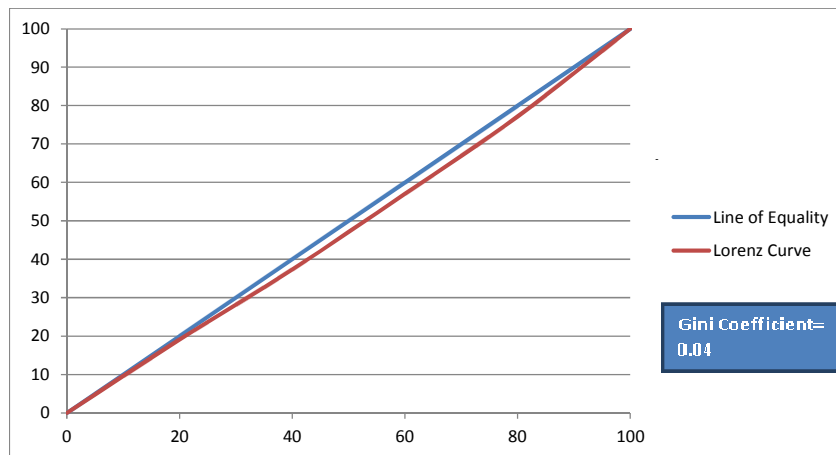


Fig. 2. Lorenz curve and gini coefficient of out-patient service

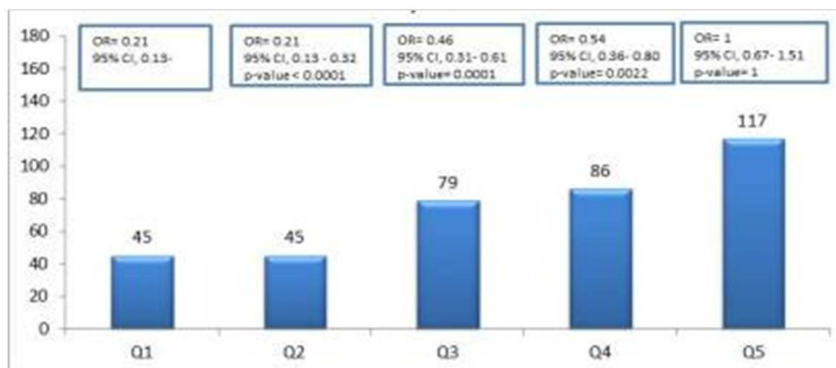


Fig. 3. Quintile-wise HHs received in-patient services in the last 1 year

In this case (refer to Fig. 4), the Lorenz Curve is a little far away from the line of equality implying that the distribution of seeking in-patient care is unequal among different wealth quintiles. The Gini-coefficient is also 0.199 which confirms the inequality. Here all the above analyses are showing that care seeking for in-patient services are unequally distributed among the households of different quintiles.

This stands in stark contrast that the risk exposure and susceptibility of the poorest quintiles to ill health is the highest, requiring a higher degree of in-patient care.

3.3 Descriptive Analysis of Out-of-pocket Health Expenditure on in-Patient and Out-patient Care

It was found that (refer to Table 4) the mean expenditure of all 770 episodes of out-patient care was INR 2,120 [95% CI (1786, 2454)]. The mean medical expenditure (covering medicines, diagnostics and consultations) was INR 1,902 [95% CI (1598, 2206)], while mean non-medical expenditure (transportation, cost of attending patient, informal payments) was INR 218 [95% CI (172, 264)].

The mean direct medical expenditure in cases availing private services was INR 2286 [95% CI (1880, 2692)] which was almost two times higher than when public health services was sought where it was INR 1123 [95% CI (720, 1526)]. According to NSSO Health Survey 2014, national average of medical cost per out-patient visit with the private provider was INR 700. National average of medical cost for seeking care from public provider was INR 400.

Yet, in 564 of the 770 cases (73 percent) out-patient care was sought from the private facilities. NSSO Health Survey 2014 shows that overall 75% cases sought treatment from private providers, while the corresponding figures at national level was 72% in rural areas and 79% in urban areas.

Table 4. Details of expenditure on out-patient services

S. No		Expenditure (episodes that incurred OOP) (INR)	
		Mean	95% confidence interval
1	All providers (n=770)	2120	1786, 2454
1.1	Medical Expenditure	1902	1598, 2206
1.2	Non-Medical Expenditure	218	172, 264
2	Public provider (n=64)		
2.1	Medical Expenditure	1123	720, 1526
3	Private provider (n=564)		
3.1	Medical Expenditure	2286	1880, 2692
4	Informal provider (n=142)		
4.1	Medical Expenditure	724	

For in-patient care (refer to Table 5), the mean total expenditure for all 417 cases was INR 20,738 [95% CI (17607, 23869)]. The mean medical expenditure was INR 18,015 [95% CI (15157, 20873)] and mean non-medical expenditure was INR 2,723 [95% CI (2331, 3115)].

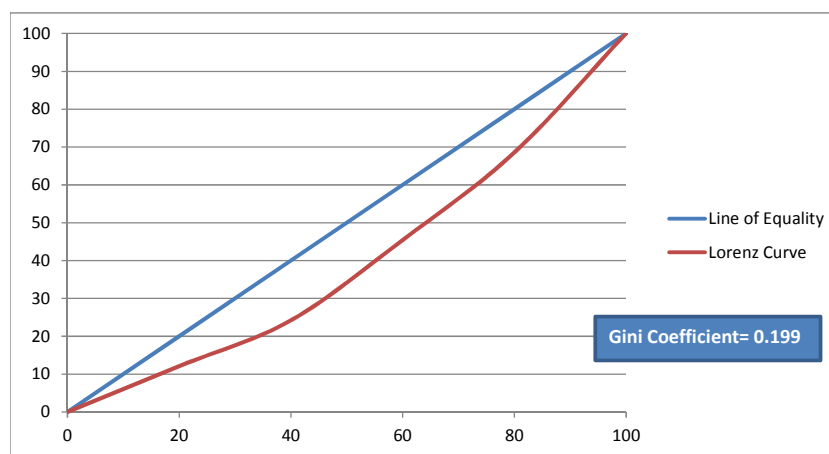


Fig. 4. Lorenz curve and gini coefficient of in-patient service

Table 5. Details of expenditure on in-patient services

S. no	Expenditure (episodes that incurred OOP) (INR)	95% confidence interval	
		Mean	
1	All providers (n=417)	20738	(17607- 23869)
1.1	Medical Expenditure	18015	(15157- 20873)
1.2	Non Medical Expenditure	2723	(2331- 3115)
2	Public provider (n=42)		
2.1	Medical Expenditure	9894	(5956 – 13832)
3	Private provider (n=373)		
3.1	Medical Expenditure	19015	(15866 – 22164)

The mean medical expenditure for cases seeking private in-patient care was INR 19,015 [95% CI (15866, 22164)] which was again almost double of the amount spent for cases seeking public health care services which was to the tune of INR 9,894 [95% CI (5956, 13832)]. The corresponding figures were INR 25,850 and INR 6,120 at national level as per NSSO Health Survey 2014. The average cost of in-patient treatment was INR 18,103 in Koderma, as compared to INR 11,270 of Jharkhand as per NSSO Health Survey 2014)

Here again, in 373 of the 417 cases (90 percent), in-patient care was sought from the private facilities. 60% cases in rural and 74% cases in urban areas of

Jharkhand had sought in-patient care from private service providers as per NSSO Health Survey 2014. At national level the corresponding figures seeking treatment from private facilities was 58% in rural areas and 68% in urban areas, as per NSSO Health Survey 2014.

3.4 Components of Healthcare Expenditure on Outpatient Care

Analysis of the breakup of health care expenditure (refer to Table 6) shows that of the total expenses, cost of medicines alone accounted for 61 percent of the total costs in out-patient care and 52 percent of the total costs in in-patient care.

The other major cost heads were consultation, accounting for 12 percent of total out-patient expenses and 25 percent of total in-patient expenses and diagnostics accounting for 17 percent of out-patient and 10 percent of in-patient total expenses.

3.5 Health Care Financing for Out-Patient and in-Patient Care

Major part of the out-patient expenses was financed (refer to Table 7) from regular earnings of households (45 percent), followed by borrowings from friends, relatives or others (37 percent) and sale of assets (5 percent).

In case of in-patient care, borrowings or support from friends and relatives accounted for 53 percent of total health care financing, followed by sale of assets (16 percent). Regular earnings could meet only 17 percent of the hospitalization expenses.

Table 6. Item-wise expenditure on out-patient and in-patient services

	Out-patient care (%)	In –patient care (%)
Consultation	12 [95% CI, 9.7% - 14.3%]	25 [95% CI, 20.84% - 29.16%]
Diagnostics	17 [95% CI, 14.35% - 19.65%]	10 [95% CI, 7.12% - 12.88%]
Medicines	61 [95% CI, 57.55% - 64.45%]	52 [95% CI, 47.2% - 56.8%]
Transportation	9 [95% CI, 6.98% - 11.02%]	13 [95% CI, 9.77% - 16.23%]
Informal Payment	1 [95% CI, 0.3% - 1.7%]	0

Table 7. Details of sources of finance on out-patient and in-patient services

	Out-patient care (%)	In –patient care (%)
Regular earning	45 [95% CI, 41.49% - 48.51%]	17 [95% CI, 13.39% - 20.61%]
Savings	13 [95% CI, 10.62% - 15.38%]	13 [95% CI, 9.77% - 16.23%]
Sale of assets	5 [95% CI, 3.48% - 6.54%]	16 [95% CI, 12.48% - 19.52%]
Donations from friends or relatives	12 [95% CI, 9.7% - 14.3%]	14 [95% CI, 10.67% - 17.33%]
Borrowings	25 [95% CI, 21.94% - 28.06%]	39 [95% CI, 34.32% - 43.68%]
Reimbursements	0	1 [95% CI, 0.05% - 1.95%]

Borrowing and sale of assets constituted 37% of the total out-of-pocket expenses in out-patient care, and 69% for in-patient care, which could lead to impoverishment of already resource poor families. As per NSSO Health Survey 2014, nationally for in-patient care, 31% of the total out-of-pocket expenses in the rural areas and 24% in the urban areas were financed through borrowings and sale of assets.

3.6 Health Insurance Coverage

Only 35 (3.6%) of the total of 986 surveyed families (refer to Table 8) were enrolled under any health insurance policies and only 5 families were entitled to receive medical reimbursements from their employer. As per NSSO Health Survey 2014, 14% rural households and 18% urban households were covered with any health insurance policy. 16 of these 35 households were enrolled in Rashtriya Swasthya Bima Yojana (RSBY), a government sponsored national health insurance scheme that was launched in 2008, and covers in-patient medical expenses.

Table 8. Details of insurance coverage of the study participants

	Number	
	Households	Individuals
Insurance coverage	35	90
Health insurance provided by MFI	1	1
RSBY	16	57
Other Government (GIC)	5	9
Private health insurance policy	13	23
Visited a provider on OPD basis in the last 30 days		16
Visited a provider on IPD basis in the last 365 days		8

The enrollment of just 16 families (1.6%) under RSBY out of 369 Below Poverty Line (BPL) families eligible for the scheme shows the dismal penetration of the scheme in the District, possibly due to lack of awareness, however, further investigations are required to understand the factors for low coverage. According to NSSO Health Survey 2014, nationally, 12% of urban population and 13% of rural population were covered with RSBY.

A total of only 90 individuals were covered under health insurance from these 35 households. Of the 90 individuals covered under health insurance, 8 had received in-patient care, yet none of them reported to

have received any benefit from the insurance schemes. Their entire expenditure was borne by their families as out-of-pocket expenditure. As per the NSSO Health Survey 2014, only 3% hospitalized cases in the urban area and 0.5% hospitalized cases in the rural areas in Jharkhand got either partial or full reimbursement from any of the health insurance policy. The corresponding figures at the national level were 6% and 1% respectively.

3.7 Catastrophic Head Counts

Of 986 households, 703 households had borne out-of-pocket expenditure on health either for seeking in-patient or out-patient care. It was found that 501 households in the sample (71 percent of the households availing any medical care) faced catastrophic healthcare expenditures (spending more than 40 percent of the household's non-food consumption expenditure).

3.8 Disaggregated Analysis of Out-of-pocket Expenses on Out-patient and in-Patient Care

The burden of out-patient care was almost two-third of the total cumulative out-of-pocket expenditure for in-patient and out-patient care.

Average monthly household's expenses for households that received out-patient care were INR 3,386 [95% CI, 2738 – 4034]. Cost of inpatient care was calculated as monthly average to compare with monthly average spending on out-patient care. Average monthly household's hospitalization expenses that received in-patient care were INR 1,937 [95% CI, 1630 – 2244]. The sum of these two monthly expenses comes to INR 5,323 per month. Of this, 64 percent [95% CI, 60.45% – 67.55%] was spent on out-patient care and 36 percent [95% CI, 32.45% – 39.55%] towards in-patient care. There is no health insurance provision to cover the costs of out-patient care, in spite of its large share of total out-of-pocket expenses.

4. DISCUSSION

There is a strong correlation between the health status and public health spending in any country. Government's share in health spending shows how much it prioritises health care as a public good. In India, while the status of health is relatively poor if compared with other BRICS countries, yet government spending on healthcare is only 1 percentage of the GDP. Most of the expenses are borne out of pocket with severe catastrophic expenses.

Study conducted in Koderma District of Jharkhand, a tribal state formed in 2000, shows that 71 percentage of all households that received either in-patient or out-patient care faced catastrophic expenses. Most of the costs were borne out of pocket from borrowings or sale of assets. The coverage level of any health insurance was found to be negligible and benefits received for in-patient care was nil. There could be many operational reasons for this meagre coverage or poor benefit-incidence ratio, yet for a country like India it is extremely important to ensure that the last mile distance is covered and that the last man is able to access good quality and affordable health care. A review of the efficiency and efficacy of the public health services and publicly financed health insurance schemes is called for. A population level study is needed to evaluate the coverage and impact of publically financed health insurance schemes in reducing out-of-pocket and catastrophic health expenditure from equity and efficiency perspective.

A vast majority of people opted for seeking private health care, which costed them more than double of what they would have incurred in a public health facility. A further research needs to be done for public health care system from accessibility and efficiency perspective. That people are opting for private health services in spite of higher cost of treatment also brings up the question of perception of reliability and quality of services in private and public health care.

Expenses were catastrophic in case of out-patient care as well, however, such services are not covered under any social security scheme. Out-patient care constituted nearly two-third of all health expenditures borne by the households.

A major chunk of the medical expenses came from drugs and medicines. While India prides itself as a leading producer of cheap drugs, are the low-cost medicines really reaching the population? There is a strong case to promote good quality generic drugs through public facilities and ensuring a reliable supply of drugs to the last mile. Simultaneously, there is a need for strong regulatory mechanisms for drug pricing as well as quality of care in private and public arena, to ensure accountability and check against medical malpractices.

High proportion of out-of-pocket health expenditure is highly regressive when high proportion of the total population is resource poor. Health being a public good, needs Government investment, and cannot be left to private players. The country, inspite of all its well-intentioned programmes, faces the issue of inequity in distribution and access to care. Government policies must ensure that the inequities

are addressed adequately through universalized health care system. This calls for larger public investment in health care. Government needs to design its policy framework in such a way so that it should also make the health system more efficient at the affordable costs to the end users.

5. CONCLUSION

WHO Commission of Social Determinants of Health states that health systems have an important role in reducing the unequal consequences of illness and mitigate further degradation in the socio-economic status of the disadvantaged people. It can do so by adopting policies to ensure equitable redistribution of resources, and addressing to the needs of different social groups. In India, there is a strong need to protect people from high OOPHE by increasing public spending for universal health coverage. Though health insurances are one of the means of public health financing, and its coverage has to be extended to the people in need, it is equally important to strengthen the existing public health delivery systems that provide quality health care to the vulnerable population. Addressing unequal distribution of resources and providing accessible, affordable medical care, investment in reducing vulnerabilities of the disadvantaged sections, and providing security net against catastrophic consequences need to be on the priority agenda of the Government.

ETHICAL APPROVAL

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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