

**OUT OF POCKET EXPENDITURES IN A TERTIARY CARE HOSPITAL OF
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ABSTRACT

Introduction: Indian patients spend around 60% of the total expenses in accessing medical care from their pockets, but this may vary from region to region and amongst states. Considering this, the current study aims to study on the out of pocket expenditure of admitted patients in a tertiary care hospital of Jharkhand. **Methodology:** This was a cross-sectional study and was conducted in the various departments of Rajendra Institute of Medical Sciences, Ranchi. The total duration of this study was three months from September 2017 to November 2017. A total of admitted 100 patients/relatives/attendants were interviewed using a pre tested semi structured questionnaire in major departments of RIMS and the sampling was done according to probability proportional to size. Participants were randomly recruited from each department and those gave their consent were included in the study. **Results:** The study clearly showed the lack of medical insurance coverage amongst the sample population which stood at just 8%, this ultimately led to almost half of the patients to take loan for the purpose of treatment in this government hospital. Of all the free services which were provided to admitted patients only food was available to 100% of the patients for free while oral drugs were least to be provided for free, which ultimately led to maximum OOP expenditure on medicines. **Conclusion:** The study concluded that the OOP expenditure incurred by patients was very high which made the families vulnerable to financial catastrophes making them mentally and financially onerous.

KEYWORDS: OOPE, medical insurance, financial catastrophe.**INTRODUCTION**

WHO defined out of pocket expenditure as direct payments by individuals to health care providers at the time of service use This excludes any prepayments for health services, for example in the form of taxes or specific insurance premiums or contributions and, where possible, net of any reimbursements to the individual who made the payments.^[1]

Health financing is one of the building blocks of health system. Health system should be financed in a way that people can use healthcare services without financial burden. Out of pocket expenditure acts as the primary barrier to access healthcare services in India, and lead to significant financial burden on those who use them.^[2]

In spite of the economic growth in India, wealth has not been distributed equally between the rich and the poor. ^[3] In National Health Policy 2017 the government has tried to change this by increasing the health expenditure to 2.5% of total GDP but in a timed manner.^[1]

As stated by a report published by *Outlook, The News Scroll*, in August 2017, Health secretary C K Mishra said that Putting together, the states and centre spend a sum amounting to Rs 2 lakh crore on health-care of the public. It is expected to go up to Rs 8 lakh crore, by 2022. But this may not be enough to cope up with the increasing burden over health care. As of Today the out of pocket expenditure for the patients in India is about 58-60 per cent which by the way ranks India 180 out of 183 countries. India ranks amongst the top five countries where out of pocket expenditure on health is highest.^[4-6]

In a report published by *The Hindu*, in December 2017, The IRDAI Chairman T.S. Vijayan said that about 62% of all health care costs are made up by out of pocket medical expenses.^[7]

Lack of investment in public health to cover the entire spectrum of health care needs can be best observed by the worsening situations in terms of costs of care and financial burden due to health care cost.^[1] The

government has policies to provide for all drugs and diagnosis in all vector borne disease programmes, tuberculosis, leprosy, including rapid diagnostic kits and third generation anti-microbial but still according to National Health Policy Draft 2017, over 63 million persons in India are faced with poverty every year due to health care cost alone^[1] According to a report published by WHO in 2012 the general government health expenditure on health as a share of total health care cost in India was only about 33%.^[5] The National Sample Survey reports the mean expenditure per hospitalization for 1 year as INR 6225. A study done in Bengal in 2007 reported that the annual per household expenditure for hospitalization was INR 4340.^[8]

So much of OOP expenditure can be mainly due to:-

- Weak public health care system and consequent reliance on private sector
- Lack of basic facilities including medical staff, diagnostic tools and other medical equipments.
- Lack of awareness about medical insurance and its low penetration.

Out of pocket expenditure can be broken down into various groups like expenditure on medicines, expenditure on diagnostic tests, medical equipments and prosthesis.

This study is an attempt to study the amount of out of pocket expenditure of the patients on management of disease and understand the financial burden incurred upon the patient and his family. It has also assessed the availability of free drugs and treatment facilities and current insurance coverage amongst admitted patients.

MATERIALS AND METHODS

This was a Cross-sectional study and was conducted in the indoors of various departments of Rajendra Institute of Medical Sciences, Ranchi. The total duration of this study was three months from September 2017 to November 2017. Sample size was calculated taking 60% of the patients spending OOP on medical care, 10% absolute error and 95% confidence limits, which came out to be 96. So a total of 100 admitted patients/relatives/attendants were interviewed using a pre tested semi structural questionnaire in major departments of RIMS viz, Medicine, Surgery, Neurosurgery, Orthopedics, Obstetrics and Gynecology and Pediatrics. The sampling was done according to probability proportional to size and participants were randomly recruited from each department and were included in our study. The study participants included the relatives or attendants of the patients were interviewed regarding OOP who were 18 years and above and agreed to give their consent. Only those patients were included who were admitted for at least 3 days in the hospital ward or were a post-operative case. The terminally ill patients or patients on ventilators requiring ICU were not included. Template preparation as well data analysis was done in MS-Excel sheet.

RESULTS

In the study conducted most of the questioned patients were male and almost 3/4th of the patients were Hindus. [Table1]. The study clearly showed the lack of medical insurance coverage amongst the sample population which stood at just 8%, this ultimately led to almost half of the patients to take loan for the purpose of treatment. [Table2]. Of all the free services which were provided to admitted patients only food was available to 100% of the patients for free while oral drugs were least to be provided for free [Table3] which ultimately led to maximum OOP expenditure on medicines. [Figure1]. More than 50% of the families said that more than 1 person were not able to go to work either due to hospitalization or due to attending the patient which led to significant financial burden on the families. [Table4]

Table 1: Sociodemographic characteristics of the sample population.

<i>Sociodemographic Characteristic (n=100)</i>	<i>Percentage</i>
Gender	
Male	54
Female	46
Religion	
Hindu	76
Muslim	14
Christian	0
Sikh	0
Sarna	10
Caste	
General	39
OBC	25
SC	10
ST	26
Ethnicity	
Tribal	14
Non-tribal	86
Employment status	
Employed	46
Unemployed	33
<14 years of age	21

Table 2: Utilization of social amenities.

<i>Social amenities (n=100)</i>	<i>Percentage</i>
Medical insurance	
Yes	8
No	92
BPL card	
Yes	51
No	49
Utilization of BPL card for treatment	
Yes	26
No	25

Table 3: Free services available in study place.

<i>Availability of free services (n=100)</i>	<i>Percentage</i>
IV Fluids	
Yes	92
No	8
Injections	
Yes	96
No	4
Oral drugs	
Yes	45
No	52
NA	3
Surgery	
Yes	51
No	0
Na	49
Laboratory tests	
Yes	62
No	38
Food	
Yes	100
No	0

Table 4: Economic catastrophe due to hospitalization.

<i>Financial burden(n=100)</i>	<i>Percentage</i>
Loss of wages in family	
None	7
1	51
>1	42
Loan	
Bank	5
Others	49
No	46

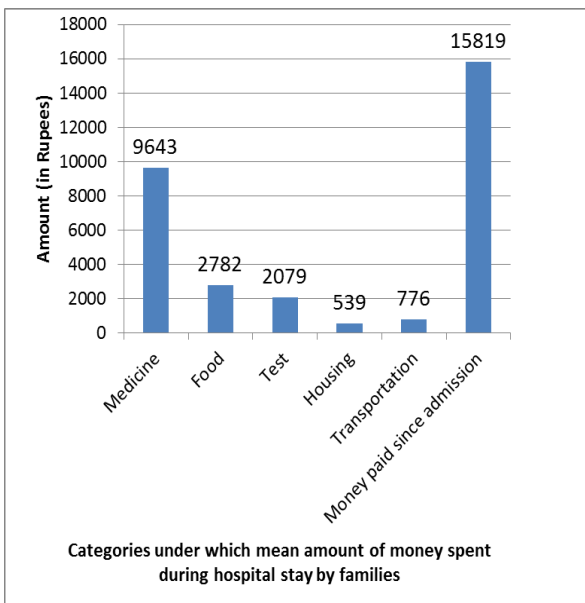


Figure 1: Graph depicting the mean OOP expenditure on various items for patients admitted.

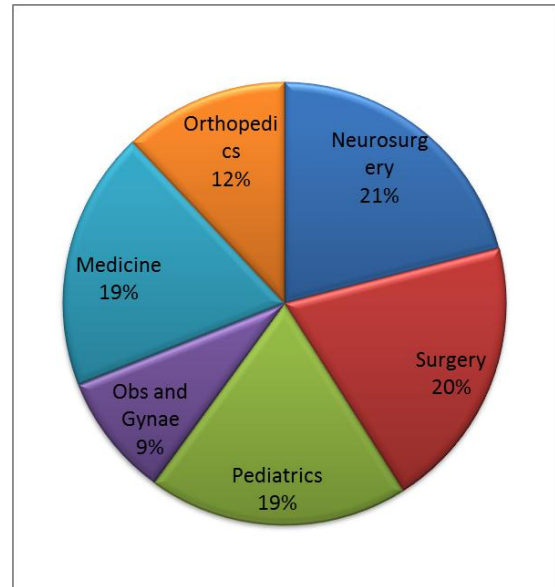


Figure 2: Graph depicting the department wise distribution of the sample population.

DISCUSSION

The Constitution enshrines India as a ‘Sovereign socialist secular democratic republic.’^[9] so it is important to highlight the political context of high out-of-pocket expenditure on healthcare in India. Our study shows that the type of medical care, the number of illness episodes as well as the presence of household member with chronic illness, hospitalizations and institutional birth deliveries were important factors leading to catastrophic expenditures among outpatients and inpatients.^[10] When economically vulnerable individual spent more on OPD as well as on drugs, laboratory tests as a proportion of per capita consumption expenditures.

The most common variables used to determine health expenditures among individual are: age, gender, education, economic status, residence, employment, and use of health facility provided. Most of expenditures occurs during hospital stay on treatment, investigations, and food stuffs.

High out-of-pocket expenses on illness of a patient can not only impoverish the family, but can make the economic recovery challenging. Many study from the India have shown that people have been pushed into poverty on account of out-of-pocket expenses on healthcare. A household confronted with illness is obliged to meet varied expenses- the cost of treatment and transport, opportunity costs for the sufferer and caregivers and cost of caring, besides other routine household expenses. Russell.^[11] has shown that for a family surviving on a daily income barely enough to meet minimum dietary requirements, even a minor illness may well prove to be the proverbial ‘last straw’.

In context of socioeconomic class in our study, cost of treatment in public hospitals marginally higher after adjusting for a general rise in price. It could also suggest

that treatment even in public hospitals is gradually out of reach for some of the poorest section of society.^[12] Even the people (51%) who have a below poverty line (BPL) card, exempted from the user charges in public hospitals but 25% of the cases were not aware of benefits and use of BPL card for the treatment.

Loss of employment due to illness was significant in rural patients. Possibly, most patients and their family members were either self-employed or informal workers in the organized/ unorganised sector.

In a study conducted in Bangalore 66.3% of the OOP expenditure were on medications. In our study also maximum expenditure was on medicines at about 61% of total OOP expenditures. In approximately 10.5% of the families had BPL card in the Bangalore study.^[12] In our study 51% families had BPL card but only 50% got advantage of it. In a study done in the rural households of Puducherry, South Indian mean expenditure on hospitalization was INR 1340±1192.^[3] In our study the mean expenditure on hospitalization was INR15819, which reflects the grim scenario of lack of availability of drugs and government services in the state in comparison to Puducherry. In a study conducted in Nepal more than 33% patients reported unavailability or drug gap between prescribed and dispensed drugs. In our study 55% patients didn't get the prescribed drug for free.^[14]

CONCLUSION

From the study, it was concluded that the OOP expenditure incurred by patients was very high and most of it was directed towards buying medicines. Penetration of medical insurance was very poor amongst the sample population which made the families vulnerable to financial catastrophes and ultimately pushing many towards taking loans with which they have to deal with even after discharge putting a burden on them mentally and financially.

Most of the BPL card holders were not aware of the benefits they could have availed if they would have used it and would have saved money and would have been less burdened by expenditure, this clearly showed lack of information which can be improved with proper advertisement and by providing information to the public.

REFERENCES

- GOI. National Health Policy 2017. Ministry of Health & Family Welfare; New Delhi: 2017. Available from: <http://cdsco.nic.in/writereaddata/National-Health-Policy.pdf>. Accessed on January 18, 2018.
- Bhojani U, Thriveni B, Devadasan R, Munegowda C, Devadasan N, Kolsteren P, Criel B. Out-of-pocket healthcare payments on chronic conditions impoverish urban poor in Bangalore, India. *BMC Public Health*, 2012 Nov 16; 12: 990. doi: 10.1186/1471-2458-12-990. PubMed PMID: 23158475; PubMed Central PMCID: PMC3533578.
- Archana R, Kar SS, Premarajan K, Lakshminarayanan S. Out of pocket expenditure among the households of a rural area in Puducherry, South India. *Journal of Natural Science, Biology, and Medicine*, 2014; 5(1): 135-138. doi:10.4103/0976-9668.127312.
- Ray TK, Pandav CS, Anand K, Kapoor SK, Dwivedi SN. Out-of-pocket expenditure on healthcare in a north Indian village. *Natl Med J India*, 2002; 15: 257-60.
- World Health Organization. WHO Global Health Expenditure Atlas. Geneva Switzerland. Sep, 2014; 228.
- Outlook, The News Scroll. 24th August, 2017. Available from: <https://www.outlookindia.com/newscroll/insurance-key-to-lower-out-of-pocket-expenditure-on-health/1131451>. Accessed on December, 2017.
- The Hindu, New Delhi, December 18, 2017 22:00 IST. Available from <http://www.thehindu.com/business/out-of-pocket-spend-makes-up-62-of-health-care-costs/article21860682.ece>. Accessed on October, 2017.
- Mondal S, Kanjilal B, Peters DH, Lucas H. Catastrophic out-of-pocket payment for health care and its impact on households: Experience from West Bengal, India. *Future Health Systems: Innovations for equity*. 2010. [Last cited on 2012 Aug 08]. Available from: http://www.chronicpoverty.org/uploads/publication_files/mondal_et_al_health.pdf. Accessed on January 18, 2018.
- The Constitution of India (as modified upto Dec 2007). Available at <http://lawmin.nic.in/coi/>. Accessed on January 18, 2018.
- Bhojani U, Devedasan N, Mishra A, De Henauw S, Kolsteren P, Criel B. Health system challenges in organizing quality diabetes care for urban poor in south India. *PLoS One*, 2014; 9: e106522. Available from: <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0106522>[cited 18/5/ 2018]. [PMC free article] [PubMed].
- Russell SJ. Can households afford to be ill? The role of the health system, material resources and social networks in Sri Lanka. PhD thesis. London School of Hygiene and Tropical Medicine, London, United Kingdom, 2001. doi: 10.17037/PUBS.
- Bajpai V, Singh N, Sardana H, Kumari S, Vettiyl B, Saraya A. Economic and social impact of out-of-pocket expenditure on households of patients attending public hospitals. *Natl Med J India*, 2017. Jan-Feb; 30(1): 15-20. PubMed PMID: 28731001.
- Upadhyay DK, Palaian S, Shankar PR, Mishra R. Rational drug prescribing and dispensing in tertiary care teaching hospital of Western Nepal. *Journal of Institute of Medicine*, 2008; 30(2): 33-8.