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Catastrophic household expenditure on health in an urban slum: a cross-sectional survey

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ABSTRACT

Background: The World Health Report 2000 identified financial protection against the costs of ill health as a fundamental objective of health systems. Out-of-pocket expenditure accounts for an average increase in poverty by 2.9 percent for urban India. Therefore, this study aims at evaluating the out-of-pocket health expenditures as well as assessing the predictors of catastrophic health costs care in urban slums. The objectives was to find the prevalence of catastrophic household expenditures on health and to assess the determinants and illnesses commonly associated with catastrophic household expenditure on health.

Methods: The study was conducted in a notified urban slum of Shivamogga district which was selected randomly and all the households were included in the study. Data was collected after informed consent using pre-tested semi-structured questionnaire and analyzed in SPSS vs18.

Results: Out of 197 households, 94 (47.7%) households experienced catastrophic health expenditure in past one month. Most common conditions associated with catastrophic expenditure were respiratory infections (cough, cold and fever; p-0.034), arthritis (p-0.001), hypertension (p<0.01) and diabetes (p-0.015).

Conclusions: We conclude that almost half of the community incurred catastrophic health expenses. Findings have important policy implications and can be used to ensure higher degree of financial protection against the economic impact of illnesses.

Keywords: Catastrophic household expenditure, Health economics, Health care costs, Universal health coverage

INTRODUCTION

The World Health Report 2000 identified financial protection against the costs of ill health as a fundamental objective of health systems, on the premise that a fair health system ensures households make health care payments according to their ability to pay rather than the risk of illness. Out-of-pocket expenditures are non-reimbursable fees which a patient or family is responsible for paying directly to health practitioners or suppliers, without intervention of a third party.

It often occurs, when publicly funded facilities are unable to provide the required health services and supplies for free or through insurance. Health policies are concerned not only with improving health status of population but also with protecting households from financial catastrophe of illness.² Out-of-pocket spending on health in the previous 30 days that exceeded 10% of the household's total expenditure over the same period was considered to be catastrophic. India was ranked as having the 42nd highest average out of pocket expenditure with 74.4% of private expenditure being paid as out of pocket.

(WHS 2011). Out-of-pocket expenditure accounts for an average increase in poverty by as much as 3.6 and 2.9 percent for rural and urban India respectively.³

Protecting households from risk of impoverishment due to out-of-pocket costs in health care is a major challenge for health systems. Therefore, this study aims at evaluating the out-of-pocket expenditures in health care as well as assessing the predictors of catastrophic costs for health care in rural and urban areas of Shivamogga district, Karnataka.

METHODS

Study design: A descriptive community based cross-sectional study.

Study setting: Kote, Urban field practice area of Shivamogga Institute of Medical Sciences.

Sampling: The study was conducted in a notified urban slum of Shivamogga district selected randomly and all the households were included in the study.

Data collection and analysis: Data would be collected from the households on the required variables using pretested semi-structured questionnaire on sociodemographic profile and health expenditures during past one month. Data entered and analysed in Epi Info version 7. Results are expressed in means and proportions. Descriptive statistics and comparison of proportions are reported. Statistical analysis was done on SPSS version 18.

Ethical considerations: Ethical clearance for the study was obtained from the Institutional Ethics Committee. Consent for participation was obtained in an informed written consent from.

RESULTS

Among all, most of the households (n=140, 71.06%) belong to upper lower socioeconomic class. 32 (16.24%) households belong to lower middle, 21 (10.65%) households belong to upper middle and 8 (4.06%) households belong to lower socioeconomic class.

Out of 197 households, 94 (47.7%) households experienced catastrophic health expenditure in past one month. Most common conditions associated with catastrophic expenditure were respiratory infections (cough, cold and fever; p-0.034), arthritis (p-0.001), hypertension (p<0.01) and diabetes (p-0.015).

Reaching the health care facility to seek treatment also costs high most of the times. In our study 22.3% of the families spent on the travel to get treatment. In the families incurred catastrophic expenditure on health, significant association (p<0.05) is shown to the expenses made on transport to seek the health care facility.

Table 1: Most common illnesses associated with catastrophic household expenditure.

Illnesses	Frequency (%)
Cold/Cough/Fever	77 (39.1%)
Arthritis	81 (41.1%)
Migraine/headache	72 (36.5%)
Heart disease	23 (11.7%)
Gastritis	61 (31%)
Asthma	14 (7.1%)
Injury	13 (6.6%)
Diarrheal disease	8 (4.1%)
Diabetes	31 (15.7%)
Hypertension	71 (36%)
Any other	27 (13.7%)

DISCUSSION

A cross- sectional survey in Nepal done by Saito E et al showed that 284 of the 1,997 households studied in Kathmandu, i.e. 13.8% after adjustment by sampling weight, reported catastrophic health expenditure in the 30 days before the survey.⁴

In a study done by Brinda EM, Rajkumar AP, Enemark U, Prince M, Jacob KS, in Vellore, India showed male gender, poor sanitation, diabetes, tuberculosis, malaria, respiratory ailments, gastrointestinal diseases, dementia, depression, and disability were associated with higher out-of-pocket expenditures.⁵ In spite of our study area which was located just adjacent to public health care facility households were spending catastrophic amount on such common illnesses which are easily treatable in primary health care setting.

Hospitalization has definite effect on catastrophic expenditure. A study done in Iran by Anbari Z, Mohammadbeigi A, Mohammadsalehi N, Ebrazeh A, 42.6% of hospitalized subjects encountered catastrophic costs.⁶

Out-of-pocket health expenditures were higher among participants with increased the number of health visits as shown in a study on health service use by Brinda EM, Kowal P, Attermann J, Enemark U.⁷

Catastrophic health expenditure and rural household impoverishment study done in China concluded that higher percentage of households experiencing catastrophic health expenditure and medical impoverishment correlates to increased health care need.⁸

This study was limited in Information on social security schemes availed by families which would have given exact insight into out of pocket expenditure on health.

CONCLUSION

Health expenditures play an important role in the impoverishment of segments of the urban locality. We conclude that almost half of the community incurred catastrophic health expenses. Findings have important policy implications and can be used to ensure higher degree of financial protection against the economic impact of illnesses.

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