International Journal of Community Medicine and Public Health
Gaiki VV et al. Int J Community Med Public Health. 2017 Nov;4(11):4137-4140
http://www.ijcmph.com
pISSN 2394-6032 | eISSN 2394-6040

DOI: http://dx.doi.org/10.18203/2394-6040.ijcmph20174545

Original Research Article

Patterns and determinants of health care spending in denizens of urban slums from peri-industrial area of Hyderabad

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Received: 05 September 2017
Accepted: 23 September 2017

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ABSTRACT

Background: Dream of universal health coverage cannot be possible with huge burden of out of pocket expenditures, common in our community. Here attempt was made to find out the pattern of expenditure towards health in the people residing around the field practice area of concerned medical college.
Methods: Community based cross sectional survey with predesigned and pretested questionnaire, with stratified random sampling, total of 257 study participants were included in study, which was initiated after ethical clearance and with informed oral consent.
Results: With majority in lower socio economic class, 33.85% of population was found to be beneficiaries of one of the other Health insurance, provided through social security measures. On an average, families were spending Rs. 770.08 (±956.24) for monthly health related expenses. This high variation in was observed due to difference in the constitutional structure of families. Outpatient expenses had least burden on families (154.26 (±99.90)) followed by in patient expenses, which included day care for various minor elements. More than 60% reported catastrophic Health expenses, resulting in variety of financial issues in family.
Conclusions: Huge burden of OOPE exists in the study area and at the same time, health care expenditure resulting in catastrophic expenses is high. The need of society to provide healthcare at subsidised rates including medicines is emphasised, which to be considered while implementing any policy decision.

Keywords: OOPE, Health care spending, Catastrophic healthcare expenses, Health insurance

INTRODUCTION

With aim of universal health coverage, every country wish to secure, large burden of health care cost remains topic of debate. It is accepted that health is a matter of state, variety of other organizations with collaboration of government or even in parallel to government workings are trying to share of the health care.

India being a huge and diverse country, with high amount of changing population due to immigration and emigration, every society has different healthcare needs and different patterns of healthcare expenditures.[1,2]

Health care finance is still predominantly based on out-of-pocket expenditures (OOPE), and the lack of prepayment mechanisms like insurance. Though many social assistance and social security schemes are functional through public health care sector, still various estimates claims out of pocket expenditures constitutes around three quarters of health care expenditures in India.[3,4] In the absence of insurance, an illness not only reduces welfare directly, but it also increases the risk of impoverishment due to high treatment expenditures, forcing the family below poverty line. The literature around out-of-pocket payments and its impact on the economic status of households has grown tremendously

over the past. Various factors determine the extent of expenditure and pattern of expenditure, which as mentioned earlier remains uncertain. Direct as well as indirect expenditures towards health are important predictors of quality of care the state provides. This attempt was made to identify the family budget allocation for health and patterns of expenditure in the catering population for health care centre of a tertiary health care providing medical college from Hyderabad district.

METHODS

Community based cross sectional survey was conducted in the catering area of urban health and training centre area of a tertiary health care providing medical college from Hyderabad district of Telangana. The area mainly inhabits various small to large scale industries, and thus population consisting of people related to those industries. This survey was conducted during May-June 2017. The Survey participants were selected from all the 12 administrative wards of Municipal Corporation, with population based sampling, by stratified random sampling. With the help of medical interns posted at urban health centre, during their postings in department of Community Medicine, predesigned, pretested questionnaires was administered to the residents in the study area. The bi-lingual questionnaire was designed in English and local language of Telugu, by translation and retranslation method. Though the study participants were interviewed with questionnaire, by interviewers, the translated questionnaire helped in dealing with technical words. Questionnaire focused mainly on the expenditure part of the family and availability of medical insurance through social security/assurance measure undertaken by public sector. The instrument also included information on socioeconomic status. Data were collected to calculate direct expenditure only. From the line listing of households, available at urban health and training centre, in each municipal wards, it was decided to include 37th house, as calculated sample size of 257 was to be met. Every 37th house from the list was contacted and informed oral consent was obtained, from any of the family inmates, more than 30 years of age. It was arbitrarily decided to interview participants more than 30, considering their significant contribution in budgeting of family, so they could provide appropriate data of family spending on healthcare. In case, house was locked, no person more than 30 years of age was present at home, at the time of interview; next house was visited and so on. There were no specific exclusion criteria.

Survey data were analyzed using IBM SPSS version 17. Data analysis included frequencies, Mann-Whitney test (for comparing the difference between the median expenditure of two groups) and categorical regression (to identify the predictors of OOPE where the dependent variable is on numeric scale while independent variables are on nominal and numeric scales).

Catastrophic health expenses were defined as, expenses on health related events or purchases, which are more than 10% of the family income left after deducing 20% as expenses for daily livings.

RESULTS

When socio-demographic characteristics of participants were compared, it was observed that, majority of participants (32.7%) were illiterate which was followed by high school education. On assessing occupation of study participants, it was observed that, unemployed and home makers made one tenth of the study population. Maximum participants were working as skilled workers (105) followed by semiskilled and unskilled. Despite of the majority of workers being skilled, according to BG Prasad's scale for socioeconomic classification, Majority of study participants were in lower class (101 in class I and 56 in class II) which makes more than half of study participants (Table 1).

Table 1: Distribution of households as per socioeconomic status of family.

Characteristics	Frequency	%
Education of head of household		
Graduate or post-graduate	29	11.30
Intermediate or post-high-school diploma	38	14.80
High school certificate	46	17.90
Middle school certificate	35	13.60
Primary school or literate	25	9.70
Illiterate	84	32.70
Occupation of head of household		
Professional	3	1.20
Semi professionals	11	4.30
Clerical	30	11.70
Skilled workers	105	40.90
Semiskilled workers	52	20.20
Unskilled workers	32	12.50
Unemployed	9	3.50
Home makers	15	5.80
Total	257	100.00
BG Prasad classification for socio economic class		
Class 1	101	39.30
Class 2	56	21.79
Class 3	49	19.07
Class 4	30	11.67
Class 5	21	8.17
Total	257	100.00

It was observed that, though, majority, almost two thirds were consulting allopathic graduates for all health related ailments; a significant chunk of denizens was consulting registered medical practitioners (RMP) for health issues. One family reported they consulted local pharmacist, directly, who will dispense them medicines at cost of their pocket (Table 2).

Table 2: Selection of health care providers by participants in routine.

First point of contact	Frequency	%
RMP	95	37.00
Allopathic doctors	161	62.60
Pharmacists	1	0.40
Total	257	100.0

Table 3: Accessibility of health insurance availability.

Insurance	Frequency	%
ESIC	56	64.4
RSBY	9	10.3
Private (employer provided)	10	11.5
Others (personally purchased health insurance)	12	13.8
Total	87	100.0
No health insurance coverage	170	66.15

It was observed that despite of various social security measures of state and central governments, only 33.85 of the study participants were covered in one of the medical insurance schemes. Out of which, a considerable amount of participants, i.e. 13.8% had private owned health insurance. 66.15% participants had no health insurance coverage. So, all the expenses incurred towards health in those participants were accounted as OOPE.

Table 4: Amount of approximated expenses on healthcare by households.

Parameter	Average (±SD)	Median	Mode
Outpatient expenditure	154.26 (±99.90)	100	100
Monthly expenditure on medicines	668.79 (±919.80)	300	200
Monthly expenditure on admissions (in patient)	195.56 (±87.79)	200	200
Total expenditure on medical treatment	770.076 (±956.24)	400	300
Income lost due to health care related issues	276.53 (±84.62)	250	200
Total financial losses incurred	1046.4 (±453.780	380	300

Table 5: Households with self reported expenditure on health as catastrophic health expenditure.

Catastrophic expenses	Frequency	%
No	161	62.65
Yes	96	37.35
Total	257	100.00

Out of the total OOPE encounter, majority of expenditure was on Medicines, to be purchased for a month as compared to those, heads of expenditure, whereas families also had to spend on monthly OP charges and in patient admission charges.

DISCUSSION

The distribution of study population was comparable with studies conducted by various authors, mainly a multicentric study conducted by Monthi et al, where overall prevalence of poor was found to be 34% which is also consistent with the pattern of distribution of study participants in studies conducted by other authors.[5-7]

It was observed that, though majority of the study participants were belonging to lower socio economic class (class 1 and 2 of BG Prasad's classification of socio economic stratification), only, one third of the participants were covered by one of the (33.18%) social security scheme for health insurance. Rest two thirds of the population was forced to spend out of pocket. This was much higher than what was observed by Garg et al, in their study, which estimated about 30% of households had not reported any OOPE. These estimates are much lower than the estimated by ministry of health and family and welfare (MOHFW), published in 2009.[8,9]

Garg et al observed that, in similar study area of Andhra Pradesh, annual out of pocket expenditure ranged from Rs. 400 to Rs. 800, in the year, 1999-2000. Currently there was huge increase in the out of pocket expenditure. Other studies conducted in the 1st decade of 21st centuries; also shows similar pattern of expenditure.[10-14] These high proportion of out of pocket expenditure in present study may be attributed to the unawareness of social welfare schemes to the workers which were mainly working in unorganized sectors. Further, it may be accorded to the failure of service providers which failed to provide the quality services expected by utilizers. However, this was not part of the study, so no concrete conclusion can be drawn for the reasons of high OPPE. It needs further detailed evaluation.

Further, expenditures on medicines being much more than those on outpatient and inpatient hospitalizations, it matched with findings of Peters et al and Roy and Hill 2007.[11,15] When it was considered that if these expenses amount for catastrophic health expenditures or not, it was observed that more than 62% of study participants related healthcare expenditures as catastrophic expenditures, which is very alarming. Mohanty et al and Garg et al, in their study observed relatively lower percent of families reporting catastrophic health expenditures.[5,8]

Limitations

The present study was carried out in limited study area, so findings are difficult to generalise. Also, age composition of families, and their spending patterns were

not considered for this study. Reasons for high OOPE needs to be evaluated.

CONCLUSION

From the present study, it was observed that, compared to old literature, huge burden of OPPE exists, especially in the field practice area of the concerned institute and there is need to implement social security schemes, which will take care of people's monthly medical expenses, which constitutes a major chuck of expenditures for unorganized sector workers. Creating awareness and enrolment of the industry workers under ESI to make benefits accessible to them is priority. The urban health centre of the medical college should also focus its attention on the need to make generic medicines available, which is accessible to them.

Policy implications

There are some implications for policy and practice of these findings. Though individual health insurance schemes provided by government, through various social assistance, are performing better, there is need and scope to improve overall demand side utilization. Additional steps to include unorganized sector workers as an insured persons in ESI, to be channelize, taking into consideration, existence of families, not covered in RSBY either. All medical colleges, are already providing healthcare services through their urban and rural health care training centres, but they need to focus on making generic medicines available, so that they are cost effective.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

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Cite this article as: Gaiki VV, Khardekar M, Kokiwar P, Katkuri S, Zare VR. Patterns and determinants of health care spending in denizens of urban slums from peri-industrial area of Hyderabad. Int J Community Med Public Health 2017;4:4137-40.