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Out of Pocket Expenditure on Health Care among the Households of Urban Area in Dakshina Kannada

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ABSTRACT

Background: Household out-of-pocket expenditure on health comprise self-medication and other expenditure paid directly by private households, irrespective of whether the contact with the health care system was established on referral or on the patient's own initiative. The study was conducted to estimate the out of pocket expenditure on health among the households in the urban field practice area; and also to study the various factor associated with out of pocket expenditure

Materials and Methods: A cross sectional study was conducted among 196 households in urban area of the Dakshina Kannada district of Karnataka , from July to September 2015, The data was collected using a semi-structured questionnaire and analysed with SPSS v.22.0

Results: The mean out of pocket health expenditure was found to be INR 948.36. Most of the participant's utilized public facility (46.5%) followed by private facility (40.9%) and only 11.6% of participants utilized both public and private facility together. There was statistically significant association between out of pocket expenditure and number of visits to hospital for acute and chronic disease.

Conclusions: The study showed that out of pocket expenditure on health care is very high in urban area.

Key words: Out of pocket expenditure, OOP urban area, health expenditure

INTRODUCTION

Household out-of-pocket expenditure on health comprise cost-contribution, self-treatment and other expense paid directly by patient party, regardless of whether the contact with the health care system was established on referral or on the patient's own initiative. [1] health financing confides out of pocket expenditures, which in turn depends on user fees and co-payments to regulate revenue, health system costs and health system efficiency and service quality. Immobilized direct cost often incorporates a major contact barrier to needed health care and thus subsidize to high out-of-pocket payments generating problems of financial protection[2]. An analysis of 108 surveys in 86 countries has revealed that catastrophic payments are incurred by less than 1% of households in some countries and up to 13% in others and up to 5% of households are pushed into poverty[4] In India, although 4.7% of the GDP has to be spent on health[3] while government (both Central and State combined) is spending only 0.9% of GDP.

Indians ranked sixth among the biggest out-of-pocket health spenders in 2014, it also topped among Brazil, Russia, China and South Africa in out-of-pocket health expenses[4]. There was a rising trend in private expenditure being paid as out of pocket from 87% in 2010 to 89.2% in 2014[5]. Most of the increase in out of pocket expenditure came from rising out-of-pocket spending on professional services, outpatient visits and out-of-pocket spending on prescriptions, which accounts for an average increase in poverty by as much as 3.6 and 2.9

percent for rural and urban India respectively[6]. The need to pay out of pocket expenditure also points toward the fact that households tend to avoid immediate attention towards minor ailments which on long run can turn out to be major health problem. Lately government has implemented various health schemes which provide health services free of cost to reduce the out of pocket expenditure. But it is very important to consider whether provision of free services will reduce out of pocket expenditure or not. Hence this study was put into action to find out whether government's effort to reduce out of pocket expenditure has proven to be successful for further strengthening. This study was conducted with an objective to study out of pocket expenditure and various factor associated with out of pocket expenditure among the urban area of Dakshina Kannada district of Karnataka.

MATERIALS AND METHODS

A cross sectional study was conducted in urban area of Dakshina Kannada district of Karnataka with the approval of institutional ethical committee during the period of July 2015 – September 2015 among 196 families who utilized health care in past 3months. With the population mean 118.6%[7] and sample mean 119 at 5% level of significance with power 80%, the sample size was 196. Families which fulfilled eligibility criteria and gave written consent to participate were included in the study. Out of 196 household only those individuals who reported to visit health sector were included in the study. Data was collected using a predesigned structured proforma. The questionnaire was divided into two parts. The first part consist of questions on personal data including age, gender, number of family member, income etc. The second part contains questions on assessment of out of pocket expenditure on health like hospital visits in past 3 months, type of health facility utilized (public, private or both), expenditure made for medication, transportation and doctors fee for acute disease and chronic disease while additional information on food, room rent, and wages lost was enquired in the case of hospitalization. In our study acute diseases was defined as illnesses which tend to have very quick onsets, typically last for only a brief period and didn't require hospitalization example- febrile condition, common cold and cough, viral infections, mild to moderate diarrhea, gastro enteritis etc.[8] Chronic disease was defined as illnesses that persist over a long period of time and needs regular follow up visits like joint pain, diabetes, hypertension, depression, irregular thyroid profile etc[9]. hospitalization was defines as Confinement in a hospital as a patient for diagnostic study and treatment like scheduled tests, procedures, or surgery; emergency medical treatment or monitor an existing condition etc[10].

Statistics: Data was analyzed using the (SPSS) software version 22. Descriptive will be reported as frequency (percentage) for categorical variables. Pearsons Chisquare test will be use to find association between two categorical variables. p value < 0.05 will be considered as statistically significant.

RESULT

As shown in table 1, 805 individuals living in the 196 households were included in the study, nearly half (59.2%) of whom were men. Majority were in the age group of 31-46 year, belonged to class IV (52.3%) and class III (31.5%) socioeconomic status as per modified Prasad's classification.[11]

Table 2 shows that 805 individuals reported 1040 episodes of illness for which medical care was taken during the course of 3 months. Where major frequency of illness was of acute disease that is 581 (56%); fever, common cold, gastrointestinal infection, UTI , fever with chills being the most common reason among all. 320 (31.40%) episode of chronic disease were reported which comprised mainly of follow up visits and only 12.75% episodes of illness lead to hospitalization.

Table 3 reveals that 44.16% of the participants utilized public health facility followed by private health facility in 42.13 % of study participants. Only 13% utilized both the facilities.

Table 1: Distribution of the study participants as per their socio–demographic profile (N=805)

Socio-demographic Variables	Frequency (%)
Age (Years)	
15-30	213(26.5)
31-46	276(34.18)
47-62	229(28.57)
63-68	66.6(8.16)
79-100	21(2.55)
Gender	
Male	472(58.63)
Female	333(41.37)
Socio economic status	
Upper	42(5.10)
Upper middle	378(46.93)
Middle	295(36.73)
Upper lower	57(7.14)
Lower	33(4.08)

Table 2: Illness reported by study participants

Type of illness	Illness (N= 1040) (%)
Acute	581(55.86)
Chronic	320(31.40)
Hospitalization	139(12.75)

Table 3: Household wise distribution of type of health facility utilized (N= 196)

Type of health facility	Frequency (%)
Public	87(44.47)
Private	82(42.11)
Both	27(13.41)
Total	196(100)

Table 4 shows Distribution of healthcare facility utilization according to socioeconomic status. Variation in the utilization of health facilities among individuals of different socioeconomic classes was observed, it showed that As the socio-economic status improved, the utilization of the private sector increased significantly (P<0.001)

Table 5 shows that mean out of pocket expenditure per house during 3 months among the study population was 1974.23± 4722.35. 70.40% of out of pocket expenditure was spent on non-hospitalized cases.

As seen in table 6, Out of pocket expenditure per visit was highest for acute disease (40.24%) followed by hospitalization (32.77%) and chronic diseases (22.2%). It is seen that mean out of pocket expenditure per visit was highest for hospitalization (INR 7421.21± 9590.24).

Table 4: Household wise distribution of healthcare facility utilization according to socioeconomic status (N=196)

Socio economic status	Type of health facility (%)			
	public sector	private sector	both	total
upper	0(0)	10(100)	0(0)	10(100)
upper middle	32(34.7)	50(54.34)	10(10.86)	92(100)
middle	43(59.7)	16(22.22)	13(18.05)	72(100)
upper lower	9(64.28)	5(35.71)	0(0)	14(100)
lower	8(100)	0(0)	0(0)	8(100)
Total	92(46.95)	81(41.32)	23(11.73)	196(100)

Table 5: Out of pocket expenditure per house among the study population (N= 196)

Reason for health care	n	Mean ± SD(INR)	95% confidence interval for mean		p value
			lower bound	upper bound	
Acute	86	554.82± 571.58	431.53	678.11	<0.001
Chronic	19	800.50± 898.51	379.98	1221.015	
Acute+ chronic	32	1617.75± 1759.72	3478.09	10458.27	
Hospitalization	59	6968.18± 9842.76	1155.06	2080.45	
total	196	1974.23± 4722.35	1308.98	2639.48	

Table 6: Household wise distribution of Out of pocket expenditure per visit (N=196)

Reason for health care	Visit	Mean expenditure per visit ± SD (INR)
Acute (n= 86)	264	351.7± 242.33
Chronic (n= 19)	146	475.25± 432.87
Acute + chronic (n=32)	32	379.49± 273.24
Hospitalization (n=59)	215	1205.07± 959.24

DISCUSSION

There were 805 individuals living in the 196 households, nearly half (59.2%) of them were men. the highest proportion of the population (52.3%) was in the age group of 31-46 year, belonged to upper middle (46.93%) and middle (36.73%) socioeconomic status as per modified Prasad's classification. 44.16% of the participants utilized public health facility followed by private (42%) and services from both government and private health centers (13%).Variation in the utilization of health facilities among individuals of different socioeconomic classes was observed and it showed that as the socioeconomic status improved, the utilization of the private sector increased significantly (P<0.001). A study conducted by Ray T.K[12] et al had similar results as our study, where majority of the study population belonged to the lower middle (45.5%) and middle socioeconomic class (38.8%). Utilization of private health facility was highest in upper socio economic class. As private health sector is perceived to provide better health facilities. Similar finding was also seen in a study conducted by Shwetha TM et al[13] in rural area of south India, where 43% of the participants' seeked medical care from Government health facilities, 54% from private hospital and only 2% utilized both government and private sectors , however Baris D et al[14] used Morbidity and Health care Survey (2004) 60th round, carried out by the National Sample Survey Organization (NSSO) under the Ministry of Statistics and Programme Implementation, Government

of India where private facilities were preferred over public .

Mean per house out of pocket expenditure during 3 months among the study population was found to be INR 1974.23± 4722.35. Money spent on non hospitalized cases (which includes acute, chronic and both acute and chronic diseases simultaneously) was 70% of the total out of pocket expenditure. However if seen individually highest out of pocket was incurred during hospitalization (6968.18± 9842.76), which was found to be statistically significant (p<0.001). However Shwetha TM et al[12] found mean out of pocket expenditure to be 744 Rs. Variation in mean out of pocket expenditure could be due to rural area.

In our study 805 individuals reported 1040 episodes of illness during the course of 3 months while only 657 visits were made to health care facilities. it was found that for each episode of illness some of the study participants visited the health care facilities various times and also there was multiple episode of illness reported by the same participant. The major episodes of illness was of acute disease that is 581 (56%) followed by chronic disease (31.40%) and hospitalization (12.75%).Yet just 657 visits were made, where 264 (40.24%) were for acute disease while 22.2% were for follow up of chronic diseases. 0nly 4.7% participants visited health center for both acute and chronic diseases. Fever, common cold, gastrointestinal infection, UTI , fever with chills being the most common acute illness reported for OPD visits and hypertension, thyroid problem and diabetes was the most common chronic disease for which follow-up visit was soughed. Reasons for hospitalization stated by participants were found to be cardiac disease, chronic renal disease, Dengue, safe confinement of pregnancy, neural manifestation

In our study, mean out of pocket expenditure per visit was highest for hospitalization (INR 1205.07± 959.24). The mean expenditure per visit for acute, for follow up of chronic disease and for participants suffering from both acute and chronic disease was found to be INR 351.7± 242.33, INR 475.25± 432.87 and INR 379.49± 273.24 respectively . The reason for out of pocket expenditure for the acute diseases was doctor's fees, medication cost. Whereas reason for out of pocket expenditure for the chronic was in terms of medication, transportation, and doctors' fees. For hospitalization episodes the majority of expenditure was in the form of scheduled tests, procedures, emergency medical treatment, transportation cost, food expenses, patient bed charges plus stay of the escorting person.

Archana etal[15] had somewhat similar finding than our study where expenditure was highest for hospitalization and the mean expenditure at the household level for OPD visits and chronic diseases, were INR 118.16 ± 2 and 195.58 ± 254.8 respectively. However Ray T.K[12] et al found mean expenditure per episode on non-hospitalized cases in rural area to be was very less than our study (Rs 54.7).

The limitation of the study is that results cannot be generalized to different population since cultural and contextual factors may influence survey results. There may also have been a problem of recall bias.

CONCLUSION

Out of pocket expenditure (OOPE) for health care was found to be very high. Highest out of pocket expenditure per visit was made during hospitalization (INR 1205.07± 959.24) and chronic diseases (INR 475.25± 432.87). As the socioeconomic status improved, the utilization of the private sector increased significantly (P<0.001)

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