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AWARENESS OF HEALTH INSURANCE IN A SOUTH INDIAN POPULATION – A COMMUNITY-BASED STUDY

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ABSTRACT

To find out the awareness of health insurance in an urban population in south India, a community-based cross-sectional study was carried out. A total number of 242 respondents from 242 households (male 38.4%; female 61.6%) were interviewed by using a pretested proforma after obtaining informed consent from the participants. The awareness of health insurance was found to be 64.0 per cent. Around 45.0 per cent of the respondents came to know about health insurance from the media which played an important role in the dissemination of information. The mean premium amount agreeable to be paid by the respondents for health insurance was found to be Rs 1804.00, even the low socio-economic group of people were also willing to part with a reasonable amount of Rs. 697.00 annually for health insurance. The middle and low socio-economic groups favoured government health insurance compared to private health insurance. The findings indicate that government should come out with a policy, where the public can be made to contribute to a health insurance scheme to ensure unnecessary out-of-pocket expenditures and also better utilization of health care facilities.

Key words: Health insurance, Awareness, Determinants, Mediclaim Policy.

Health insurance is fast emerging as an important mechanism to finance health care needs of the people. The need for an insurance system that works on the basic principle of pooling of risks of unexpected costs of persons falling ill and needing hospitalization by charging premium from a wider population base of the same community.

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In the present scenario the annual expenditure on health in India amounts to about $7.00 in rural areas and $10.00 in urban areas per person. The majority of care being provided by the private sector[2]. With improved literacy, modest rise in incomes, and rapid spread of print and electronic media, there is greater awareness and increasing demand for better health services. There is growing evidence that the level of health care spending in India – currently at over 6 per cent of its total GDP – is considerably higher than that in many other developing countries. This evidence also suggests that more than three-quarters of this spending includes private out-of-pocket expenses[3].

The opening up of the health insurance to the private sector by the Insurance Regulatory Development Authority (IRDA) Act 2000 has provided immense opportunities for both the public and the industry for better utilization of health care facilities. With this kind of situation prevailing, there has not been much progress in the coverage of our population within the health insurance system; only a meagre three per cent coverage has been reported[5]. Whether this is due to lack of awareness on part of the public is to be determined.

MATERIALS AND METHOD

A community-based cross-sectional study was carried out in the Municipal Corporation limits of Mangalore City. The striking feature of the study area is socio-economic development as reflected by high literacy rate i.e. 91.14 per cent (Male 94.80% and female 87.46%) according to 2001 census [4], in terms of gender related health index Dakshina Kannada district of which Mangalore is a taluk which takes the lead in the Karnataka State in terms of gender equality in health with a score of 0.807 (GHI includes life expectancy at birth, infant mortality rate, educational attainment)[5] and a favourable sex ratio of 1001.

The study area has an excellent health care infrastructure. Health care services are being provided by five medical colleges and well-equipped ISO certified government hospitals. In addition to it, the study area also has numerous private hospitals and nursing homes.

Sampling

The Mangalore Municipal Corporation consists of 60 wards with a total population of 3.98 lakh. People in the age group of more than or equal to 25 years comprise 1.79 lakh. 10 wards were selected out of 60 wards by a simple random

sampling method by means of lottery method. Eligible population of selected wards were listed and population proportionate to the sample size was calculated from each of the 10 selected wards (the wards with a higher population will have a higher sample representation in the sample size) probability proportional to size sampling method.

Sample size

Minimum sample size: $n = \frac{Z^2P(1-p)}{d^2}$

p= anticipated population proportion (15%), d = Absolute precision, Confidence interval =95 per cent
Total Sample size =196, Non-response error = 15%
Final Sample size =242.

Inclusion Criteria

- Persons above or equal to 25 years of age.
- One person from one house.

Collection of Data

During home visit, the purpose of the study was explained to the people and informed consent was taken from them. Before the house-to-house visit, a visit was made to the wards and with the help of a local volunteer, the entire ward was inspected and attempt was made to represent the entire ward. From each selected house the required information was collected by the investigator herself from the head of the family or any other responsible member of the house. If the head of the family or responsible member of the selected house was absent or house was locked, adjacent household was selected. From each house only one member was interviewed. The socio-economic status of the family was assessed using Modified Uday Pareekh classification[6].

Statistical Analysis

Data were entered into the computer database and statistical package of social sciences (spss/ps)[7] version 11 was used for analyzing data. Data were analyzed to find out the association between awareness of health insurance and independent variables like, socio-economic status and religion. Data were further analyzed to find out the association between awareness and other variables. Chi-square test for

association and linear trend were used and p value less than 0.05 was considered as significant.

FINDINGS AND DISCUSSION

A total of 242 respondents were interviewed, one from each household, in this study, which was carried for a period of four months.

TABLE 1
SOCIO-DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS

Characteristics of the Respondent	Number	Percentage
Age (years)		
25 – 34	66	27.3
35 – 44	82	33.9
45 – 54	36	14.9
55 – 64	36	14.9
>= 65	22	9.1
Sex		
Male	93	38.4
Female	149	61.6
Religion		
Hindu	201	83.1
Muslim	21	8.7
Christian	19	7.9
Jain	1	0.4
Type of family		
Nuclear	150	62.0
Joint	52	21.5
Extended	40	16.5
Socio-economic status		
High	22	9.1
Middle	131	54.1
Low	89	36.8

Characteristics of the Respondent	Number	Percentage
Family income (Rs.) monthly		
1000 – 5000	93	42.1
5001 – 10000	65	29.4
10001 – 15000	32	14.5
15001 – 20000	16	7.2
20001 – 25000	7	3.2
> = 250001	8	3.6

Majority of the respondents were in the age group of 35–44 years of age (33.9%) followed by 25–34 years of age (27.3%). Only 9.1 per cent of respondents were in the age group of >=65 years of age. Males constituted 38.4 per cent and females 61.6 per cent of the respondents. 83.1 per cent of respondents were Hindus while Muslims and Christians were 8.7 per cent and 7.9 per cent respectively. 62 per cent of the respondents stayed in nuclear family and 21.5 per cent in the joint family, 54.1 per cent of the respondents belonged to middle socio-economic status. 36.8 per cent and 9.1 per cent of the respondents belonged to low and high and low socio-economic status respectively. 42.1 per cent of the respondents had monthly family income between Rs. 1000 and 5000 and 3.6 per cent respondents had an income of >= Rs. 25001.

TABLE 2
AWARENESS AND SOURCE OF INFORMATION ABOUT HEALTH INSURANCE AMONG THE RESPONDENTS

Awareness	Number	Percentage
Yes	155	64.0
No	87	36.0
Total	242	100
Source of Information		
Television	16	10.3
Radio	3	1.9
Newspaper	50	32.35
Doctor	14	9.0
Family/Friends	54	34.8
Internet	4	2.6
Insurance agents	14	9.0
Total	155	100

The whole study was based on the awareness of the respondents. 64 per cent of the respondents were aware of health insurance. Of the total 242 respondents, 64 per cent of the respondents were aware of health insurance whereas 36 per cent of them had no idea about it (Table 2). In a similar study done by Patro[8] *et al* only 22.7 per cent of the study population was aware of health insurance. The high awareness in the present study may be attributed to the high literacy percentage among the respondents.

Table 2 depicts the source of information and awareness of health insurance. 34.8 per cent of the respondents said that family/friends was the source of information followed by from newspaper (32.35%), television (10.3%) and radio (1.9%). A good number of respondents also got to know about it from insurance agents (9%), doctors (9%) and from the internet (2.6%).

Gumber and Kulkarni[9] in their study found out that the need for education for rural and urban population was alike on the concept of health information which is a crucial aspect on extending awareness about health insurance on a large-scale. This calls for an effective information, education and communication activities which will improve the understanding of the people about insurance.

TABLE 3
DETERMINANTS OF AWARENESS OF HEALTH INSURANCE

Determinants	Aware		Total		X^2 /fisher test	P Value
	No	%	No	%		
Religion					8.65	P= 0.034
Hindu	131	67.16	201	83.06		
Christian	15	78.95	19	7.85		
Muslim	8	42.11	21	8.68		
Jain	1	100.00	1	0.41		
Type of family					0.68	P= 0.71
Nuclear	97	64.67	150	61.98		
Joint	31	59.62	52	21.49		
Extended	27	67.50	40	16.53		
Occupation					43.78	P<0.001
Professional	3	100	3	1.24		
Govt. Servant	30	93.75	32	13.22		
Business	51	71.83	71	29.34		

Determinants	Aware		Total		X^2 /fisher test	P Value
	No	%	No	%		
Abroad	5	83.33	6	2.48		
Skilled worker	28	50.00	56	23.14		
Unskilled worker	9	26.47	34	14.05		
Retired	25	73.53	34	14.05		
None	4	66.67	6	2.48		
Family income					40.72	P<0.001
1000–5000	38	40.86	93	42.08		
5001–10000	46	70.77	65	29.41		
10001–15000	28	87.50	32	14.48		
15001–20000	15	93.75	16	7.24		
20001–25000	7	100	7	3.17		
25001 & Above	6	75.00	8	3.62		
Literacy status					83.07	P<0.001
Illiterate	2	25.00	8	3.31		
Primary	6	14.28	42	17.36		
Secondary	42	59.15	71	29.34		
PUC	26	72.22	36	14.88		
Graduate	66	92.96	71	29.34		
Post-graduate	13	92.86	14	5.79		
Socio-economic status					76.94	P<0.001
High	22	100	22	9.09		
Middle	107	81.68	131	54.13		
Low	26	29.21	89	36.78		

The determinants of awareness were religion, type of family, occupation, family income per month, educational status and socio-economic status, when considered except family type, the other determinants had a statistically significant association. A large number of professionals were aware of health insurance (93.75%). While taking the educational background into consideration, 93 per cent of graduates and above were aware of health insurance. Socio-economic status had better awareness of health insurance. Results of studies carried out elsewhere were also in agreement with the findings of the present study. Mathiyazhagan[10] and Patro[8] *et al* concluded in their respective studies that their study population had reasonable knowledge about health insurance (Table 3).

TABLE 4
PERCEIVED PURPOSE AND BENEFITS OF TAKING HEALTH INSURANCE V/S SOCIO-ECONOMIC STATUS OF THE RESPONDENTS

Purpose	Socio-economic Status			
	High	**Middle**	**Low**	**Total**
Tax gains	2 (10%)	9 (7.6%)	-	11 (4.9%)
Covering medical expenses	14 (70%)	83 (69.7%)	26 (31%)	123 (55.2%)
Compulsion from employers	-	2 (1.7%)	-	2 (0.9%)
Others	1 (5%)	4 (3.4%)	2 (2.4%)	7 (3.1%)
No Idea	3 (15%)	21 (17.6%)	56 (66.7%)	80 (35.9%)
Chi Square/Fischer = 58.9 P = 0.001				
Benefits				
Reduce out of pocket expenditure	10 (52.6%)	43 (44.3%)	11 (28.2%)	64 (41.3%)
Emergency health care	6 (31.6%)	43 (44.3%)	23 (59%)	72 (46.5%)
Better utilization of health care facility	2 (10.5%)	6 (6.2%)	3 (7.7%)	11 (7.1%)
others	1 (5.3%)	2 (2.1%)	-	3 (1.9%)
No idea	-	3 (3.1%)	2 (5.1%)	5 (3.2%)
Chi Square / Fischer = 8.09 P = 0.424				

Table 4 depicts the purpose and benefits of health insurance as perceived by the respondents when they were queried on their awareness and knowledge of health insurance. A good majority of the respondents (69.7%) belonged to the middle socio-economic group was of the opinion that the health insurance would cover their medical expenses. When asked about the benefits of health insurance, an equal 44.3 per cent each of the middle socio-economic group respondents stated that it would reduce the out-of-pocket expenditure and the other group opined that it would help in case of emergency medical situations. About 31 per cent of the low socio-economic group also felt that the benefit of health insurance would help in case of emergency medical situations. This kind of perceptions among the respondents may be due to the high out-of–pocket expenditure in India in case of health care expenses [3, 4].

TABLE 5
SOCIO-ECONOMIC STATUS OF THE RESPONDENTS AND MEAN PREMIUM AGREED TO PAY

Socio-economic Status	N	Mean Premium in Rs. Agreed to Pay/Year	F value	P value
Low	58	697	9.75	0.0001
Middle	177	1271		
High	13	3444		
Total	188	1804		

Table 5 shows the mean premium amount agreed to be paid by the different socio-economic groups. The result was found to be statistically significant. It is important to note that the low socio-economic group of people were also willing to part with a reasonable amount of Rs. 697.00 annually for a family of 4-5 members to cover their expenses in case of any hospitalisation. Patro et al [8] has reported similar findings from their study involving different socio-economic strata of the study population and found that most of them agreed to pay a premium between Rs.600.00 and1000.00 for a family of five per annum.

TABLE 6
SOCIO-DEMOGRAPHIC PROFILE OF RESPONDENTS WITH EXISTING HEALTH INSURANCE COVERAGE

Profile	Existing Health Insurance Coverage (n= 95)				
	Mediclaim	Medical Reimbursements	Manipal Arogya Card	Others	Total
Age (Yrs.)					
25 - 34	8 (44.4%)	5 (27.8%)	2 (11.1%)	3(16.7%)	18 (100%)
35 - 44	12 (37.5%)	11 (34.4%)	8 (25.0%)	1(3.1%)	32 (100%)
45 - 54	8 (42.1%)	9 (47.4%)	2 (10.5%)	--	19 (100%)
55 - 64	7 (50.6%)	3 (21.4%)	3 (21.4%)	1 (2.1%)	14 (100%)
> = 65	51 (41.7%)	1 (8.3%)	3 (25.0%)	3 (25.0%)	12 (100%)
Chi Square/Fischer = 14.927 P = 0.245					
Sex					
Male	13 (31.0%)	15 (35.7%)	10 (23.8%)	4 (9.5%)	42 (100%)
Female	27 (50.9%)	14 (26.4%)	18 (18.9%)	8 (8.4%)	95 (100%)
Chi Square/Fischer = 3.936 P = 0.268					
Type of Family					
Nuclear	26 (43.3%)	16 (26.7%)	15 (25.0%)	3 (5.0%)	60 (100%)

Profile	Existing Health Insurance Coverage (n= 95)				
	Mediclaim	**Medical Reimbursements**	**Manipal Arogya Card**	**Others**	**Total**
Joint	6 (33.3%)	7 (38.9%)	2 (11.1%)	3 (16.7%)	18 (100%)
Extended	8 (47.1%)	6 (35.3%)	2 (12.5%)	2 (11.8%)	17 (100%)
Chi Square/Fischer = 7.069 P = 0.315					
Socio-economic Status					
High	7 (41.2%)	6 (35.3%)	3(17.6%)	1 (5.9%)	17 (100%)
Middle	31 (50.8%)	16 (26.2%)	9 (14.8%)	5 (8.2%)	61 (100%)
Low	2 (11.8%)	7(41.2%)	6(35.3%)	2(11.8%)	17 (100%)
Chi Square/Fischer = 9.286 P = 0.158					

Table 6 reveals the status of the respondents who were covered under various health insurance plans like, mediclaim and medicare, ESIS and CGHS, hospital-based health care plans and medical reimbursements from their respective employers, according to the type of family, age, sex, and socio-economic status. Of the total respondents, with the kind of health care coverage mentioned above, 50.8 per cent of the middle socio-economic group were covered by the standard mediclaim policy of the GIC, 18.2 per cent of them under a hospital-based health care plan of the Manipal Group of Hospitals which is one of the oldest medical college hospitals of the region. Mediclaim policy was the preferred one among various types of health insurance policies available in the market. Mediclaim had 50 per cent share among the total insured households. Nagendranath and Chari[11] reported that mediclaim policy of the General Insurance Corporation was the only policy of note in the country for a long time followed by Jeevan Asha of the Life Insurance Corporation.

TABLE 7
TYPE OF HEALTH INSURANCE PREFERRED AND SOCIO-ECONOMIC STATUS

Socio-economic Status	Preference of Health Insurance											
	Govt.		Private		NGO		Cheaper		Others		Total	
	No	%	No	%	No	%	No	%	No	%	No	%
High	6	35.29	8	47.05	0	0	1	5.88	2	11.76	17	9.04
Middle	70	61.40	35	30.70	3	2.63	5	4.39	1	0.88	114	60.64
Low	49	85.96	4	7.01	2	1.75	1	1.75	1	1.75	57	30.32
Total	125	66.49	47	25.0	5	2.66	7	3.72	4	2.13	188	100

Chi-square = 28.19 ($p<0.0001$)

The high socio-economic group of the population preferred private health insurance schemes (47.05%) over government schemes (35.29%). Among the middle group, they preferred government schemes (61.4%) rather than private (30.7%). Even

the low group preference was similar to that of middle income group i.e. government (85.96%) and private (7.01%), this trend was statistically significant (Table 7).

CONCLUSION

The health insurance companies should come out with clear cut policy details, as many of the respondents had vague ideas about the various benefits and risks involved in a policy. The middle and low socio-economic groups are a potential market to be tapped as they are ready to spend a reasonable amount as premium payable per annum rather than huge medical expenses in case of any adversities. If the private insurance players want to venture in the market, they should try to imbibe trust in the people as most of the respondents preferred government health insurance schemes, the reason being guarantee for their capital. To develop a viable health insurance scheme, it is important to understand people's perceptions and develop a package that is accessible, available, affordable and acceptable to all sections of the society.

RECOMMENDATIONS

1. Most of the respondents were of the opinion that government should come out with a clear cut policy, where the public can be made to contribute compulsorily to a health insurance scheme to ensure unnecessary out-of-pocket expenditures and also better utilization of their health care facilities.
2. The Manipal University as a part of their social initiative had come out with a 'Manipal Arogya Surakhsha Scheme' which has subsidized health care facilities for those covered under the scheme. This scheme under which the family has to pay an annual premium of Rs. 250.00 and they can avail of health care facilities at a discounted rate from any of the group hospitals.

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