Original Research Article

DOI: http://dx.doi.org/10.18203/2394-6040.ijcmph20193994

Attitude towards and utilization of health insurance in a metropolitan city: a cross-sectional study

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Received: 13 June 2019 Revised: 22 July 2019 Accepted: 25 July 2019

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ABSTRACT

Background: Data on attitudes towards and utilization of health insurance in Mumbai is lacking. The aim of the study was to assess the level of awareness about health insurance, the factors influencing the decision to subscribe and the patterns of utilization of health insurance.

Methods: 201 principal earning members of households belonging to the 25-45 years age group were interviewed in a community-based household survey in a conveniently selected ward in Mumbai with the help of a pretested, semi-structured interview schedule.

Results: The level of awareness about health insurance was 65.3%. 33.8% of the respondents had utilized or subscribed to some form of health insurance. 27.9% had used Government health insurance while 13.4% had used private health insurance. 7.5% had access to both Government and private health insurance.

Conclusions: A concerted effort is necessary to sensitize the public about health insurance with strategic use of sentiment regarding community risk pooling.

Keywords: Health insurance, Risk pooling, Awareness, Utilization

INTRODUCTION

Health insurance can be defined as a social device whereby one person is enabled to make a contract with another, the second party agreeing to assume certain definite risks of the first party upon payment by the latter of a compensation called the premium. It is equivalent to risk pooling in health care. It has gained prominence in India as a major mechanism of health care financing in the last two decades or so. The private sector and the governments both are venturing in and investing heavily.

Though the customer has a variety of options to choose from, wise choices are possible only with requisite awareness. Financial literacy is essential. The New York-NCAER survey of 2008 demonstrated that even though a majority of Indian households are good savers, they do

not undertake financial planning and are at risk financially.^{2,3}

Various studies have estimated the level of awareness about health insurance to be ranging from 54% (prelaunch survey of insurance awareness campaign, 2011, IRDA) to 75.8% (Goel) to nearly 90% (Bawa and Ruchita).^{2,4,5} Even among those who are aware, there are many concerns and barriers to actual utilization of that knowledge. Together with the fact that less than 25% of the population of India is covered by effective risk pooling mechanisms, health insurance is in its developmental infancy.

The present study aimed to measure awareness about, attitude towards and utilization of health insurance in a metropolitan city. Very few similar studies have been

conducted in Mumbai to assess these parameters. This information gap needs to be filled to tap the potential of this market. The specific objectives of the study is to assess the level of awareness about health insurance among principal earning members in a metropolitan city and determine the various sources of information, ascertain the factors that influence the decision of subscribing to private health insurance and to examine the utilization patterns of health insurance by the insured.

METHODS

A community-based cross-sectional study was conducted in the F-south ward of Mumbai over a period of 18 months. The study period was from February 2015 to August 2016. Study participants were principal earning adult members of households in the age group of 25 to 45 years. This age group was chosen because by the age of 25 years, people usually start earning and begins their families and they become conscious that people are financially dependent on them.

The sample size was calculated to be 201, using the formula $N = \frac{4PQ}{d^2}$ and assuming the awareness about health insurance to be 56% (based on the IRDA 2011 survey) and a relative precision of 12.5%. This sample size was distributed among different income strata using data from previous surveys about income. For each stratum, purposive sampling was done, assuming that people from specific occupational groups usually have specific ranges of income and stay in specific types of settlements (like chawls, government quarters, cooperative housing societies). Details about the distribution of types of settlements were obtained from the medical officers of the health posts. The study area contained Naigaon BDD Chawl which is the urban field practice area of KEM Hospital, to which the authors are affiliated.

The setting of the interview was either the workplace or the house of the participant, depending on the point of contact and the convenience of the participant. The subjects were approached in the evenings and weekends as the principal earning members are usually not expected to be at their households in the mornings. In the event of the non-availability of the principal earning members, the investigator moved onto the next household. The socioeconomic class was determined using the modified Kuppuswamy socio-economic scale.

A pre-tested semi-structured interview schedule was used. Ethical clearance was obtained from the Institutional Ethics Committee of KEM Hospital, Mumbai. Consent was obtained after explaining the purpose of the study was explained to the participants using informed consent document.

Data was entered in Microsoft Excel 2013 and statistical analysis was done in (IBM Corp. Released 2013. IBM SPSS Statistics for Windows, Version 22.0. Armonk, NY: IBM Corp.). Numerical variables were expressed in means with standard deviations and medians with interquartile ranges and ranges wherever applicable. Categorical variables were expressed in percentages. Chisquare tests were used to measure association between subscription to/awareness about health insurance and socio-economic variables

RESULTS

The study population was mostly composed of males (88%). A majority of the respondents were in the late 30s or early 40s (71.1%). The subjects were mostly Hindus (53.2%) and Buddhists (42.8%) with a few Christians. Nearly three-fourths were married (74.6%) while the rest were unmarried (14.4%) or widowed (11%). Around a quarter each of the heads of households had attended up to middle school (26.9%) and finished intermediate/posthigh school diploma (24.4%). Around 14% each were graduates/post-graduates and illiterate/primary school educated. One-fifth had studied up to middle school. Similarly, 16.9% each of the heads of households were unskilled workers and semi-skilled workers. One-fifth of the heads were clerks or shop owners while more than one-fourth were skilled workers. A mere 4% were semiprofessionals and nearly 15% were unemployed. Nearly four-fifths of the households (79.6%) were earning between ₹6177 and ₹20589. Fewer than 7% were earning more than ₹41179 while fewer than half of that (2.5%) were earning between ₹20590 and ₹41178. More than 11% of the households were earning between ₹2080 and ₹6176. Calculating the socio-economic class from the aforementioned data and using the Modified Kuppuswamy Scale, it was found that nearly 40% of the respondents belonged to upper lower socio-economic class while just above 44% belonged to the lower middle class and nearly 16% to the upper middle class.

Table 1: Association between awareness about health insurance and socio-demographic characteristics.

	Awa	Awareness		
Characteristics	Present	Absent	X^2	P value
	N (%)	N (%)		
Age category				
25-30	19 (79.2)	5 (20.8)		0.184
31-35	27 (71)	11 (29)	4.8419	
36-40	48 (67)	24 (33)	4.8419	
41-45	38 (57)	29 (43)		

Continued.

	Awareness			
Characteristics	Present	Absent	X^2	P value
	N (%)	N (%)		
Gender	•		•	
Male	124 (70)	53 (30)	12.6426	<0.01
Female	8 (33)	16 (67)	12.0420	
Family type				
Nuclear family	88 (73.3)	32 (26.7)	7.7537	0.005
Joint family	44 (54.3)	37 (45.7)	1.1331	0.003
Socio-economic class				-
Upper lower	40 (50)	40 (50)		
Lower middle	60 (67.4)	29 (32.6)	25.56	< 0.01
Upper middle	32 (100)	0 (0)		
Education				
Illiterate	0 (0)	4 (100)		
Primary school	14 (61)	9 (39)		
Middle school	31 (57.4)	23 (42.6)	12.88	0.025
High school	29 (69)	13 (31)	12.00	
Intermediate	35 (71.4)	14 (28.6)		
Graduate/PG	23 (79.3)	6 (20.7)		
Occupation				
Unemployed	16 (53.3)	14 (46.7)		
Unskilled	21 (61.8)	13 (38.2)		0.019
Semi-skilled	16 (47)	18 (53)	13.5752	
Skilled	41 (74.5)	14 (25.5)	15.5752	
Clerk	31 (77.5)	9 (22.5)		
Semi-professional	7 (87.5)	1 (12.5)		
Marital status				
Married	112 (74.7)	38 (25.3)		< 0.01
Unmarried	11 (38)	18 (62)	21.267	
Widowed	9 (41)	13 (59)		

Out of the 201 respondents, 132 were aware about health insurance. The major sources of information were advertisement banners, posters and hoardings (81.1%), television/radio (68.2%), newspapers and magazines (53.8%), family and friends (30.3%) and healthcare facilities (28%). Influence of insurance agents and tax consultants was minimal.

It was found that 33.8% of the respondents had utilized or subscribed to some form of health insurance. 27.9% had utilized some form of government health insurance while 13.4% had subscribed to private voluntary insurance. 7.5% of the population had access to both government and private health insurance.

Table 2: Association between access to health insurance and socio-demographic characteristics.

	Subscribed			
Variables	Yes	No	\mathbf{X}^2	P value
	N (%)	N (%)		
Age category				
25-30	11 (46)	13 (54)	_	0.097
31-35	15 (40.6)	22 (59.4)	6.31	
36-40	27 (37.5)	45(62.5)	0.31	
41-45	15 (22.7)	51 (77.3)		
Marital status				
Married	64 (42.7)	86 (57.8)		<0.01
Unmarried	0(0)	27 (100)	21.32	
Widowed	4(18)	18 (82)		

Continued.

	Subscribed			
Variables	Yes	No	\mathbf{X}^2	P value
	N (%)	N (%)		
Gender				
Male	63 (36)	112 (64)	2.16	0.142
Female	5 (20.8)	19 (79.2)		
Education				
Illiterate	0 (0)	4 (100)		0.097
Primary	8 (34.8)	15 (65.2)	0.22	
Middle	17 (31.5)	37 (68.5)	9.32	
High school	9 (21.4)	33 (78.6)		
Intermediate	20 (42.6)	27 (57.4)		
Graduate/PG	14 (48.3)	15 (51.7)		
Occupation				
Unemployed	4 (13.3)	26 (86.7)		<0.01
Unskilled	12 (35.3)	22 (64.7)		
Semi-skilled	6 (18.8)	26 (81.2)	23.77	
Skilled	19 (34.5)	36 (65.5)	23.77	
Clerk	20 (50)	20 (50)		
Semi-professional	7 (87.5)	1 (12.5)		
Ration card				
None	2 (100)	0 (0)	20	<0.01
Yellow/green	6 (37.5)	10 (62.5)	29	
Orange/photo card	53 (31.2)	117 (68.8)		
White/APL	11 (100)	0 (0)		
Income category				
<₹9338	5 (11)	40 (89)		0.001
₹9339-₹ 14000	11 (20.4)	43(79.6)		
₹14001-₹18677	18 (40)	27(60)	47.9	
₹18678-₹ 37353	19 (47.5)	21 (52.5)		
>₹ 37354	15 (100)	0 (0)		
Type of family				·
Nuclear	44 (37.3)	74 (62.7)	1.25	0.263
Joint	24 (29.6)	57 (70.4)	1.23	
Socio-economic class				
Upper lower	19 (23.8)	61 (76.2)	48.2	< 0.01
Lower middle	21 (25)	66 (75)		
Upper middle	28 (87.5)	4 (12.5)		

Of those who had subscribed to any form of health insurance, 27 (39.7%) had subscribed to a private insurance. When enquired regarding the reasons for the same, 55.6% responded that health insurance was a form of both savings and protection, while the rest responded that it was for tax purposes (18.52%), protection against health care costs and unforeseen health expenditure (14.81%) and the rest had gotten automatically insured due to reasons such as job benefits (11.11%).

Among those who were aware of health insurance and yet not subscribed, 98.5% had replied that they did not give it much thought. Other reasons were inadequate funds (92.4), preference for other investments (76.3%), not thinking it was necessary (32.1%), family or friends not availing (27.5%), doubtful credibility of providers

(20.1%). Only 2 participants (1.5%) replied that they were not satisfied with the available schemes.

Among those who did not have health insurance, 69 subjects or 52.7% said they were ready (both willing and able) to avail a health insurance policy, while the rest were either not ready (11.4%) or undecided (22.9%). Around 13% of the participants were willing to avail health insurance if their conditions were fulfilled.

Among the 69 participants who said they would consider availing a health insurance scheme, majority preferred availing a government insurance scheme (92.9%) while 7.1% were willing to avail a private insurance scheme. This suggests an overwhelming trust in the ability of the government to deliver health care.

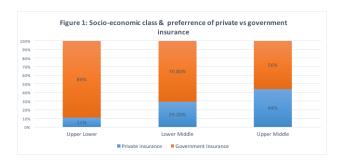


Figure 1: Proportion of each socio-economic class preferring private vs government insurance.

When asked about conditions which needed to be fulfilled for considering subscription to health insurance, participants were willing to consider depending on advice (35.4%), lesser formalities (23.2%), contribution paid by employer (21.2%), availability of more comprehensive or cheaper schemes (14.1%) or if other subscribe (6%). The role of the immediate community including family, friends and colleagues was found to be critical in the attitude towards health insurance. This is to be expected as the very principle of health insurance is risk-pooling which is made more conducive in a community.

Among the 27 respondents who had subscribed to private health insurance policies, the cover amount ranged from INR 3,00,000 to 5,00,000 and the premium amount ranged from INR 4,000 to INR 16,000. Most (81.5%) were satisfied with the health care providers while only 10 (37%) were satisfied with the insurance companies. The reasons for satisfaction with insurance companies were good schemes (60%) and cashless transactions (40%) while reasons for dissatisfaction were out-of-pocket payments (59%) and poor/delayed response (41%). Only 55.6% of the 27 were willing to renew the current policy.

DISCUSSION

Demographically the sample population was older and composed mostly of males compared to previous studies like Indumathi et al, Suman Goel and Bawa and Ruchita. This may be due to inclusion of principal earning members of households in the study.

The awareness about health insurance was determined to be 65.7%. This was in line with the 54% determined by the IRDA Pre-Launch Insurance Awareness Survey of 2010, which was the largest, such survey covering more than 30,000 households. Studies conducted in rural areas showed relatively low awareness. An example is Pandve et al which estimated a 16% awareness. Goel estimated an average awareness of 76% in rural and urban areas taken together. The important points to be noted are the consistent increase in awareness over the years and a higher proportion of urban households being aware compared to rural households in most studies.

The present study found a significant association between awareness and male gender, religion, nuclear families, socio-economic status, higher education, married status and more professional and skilled occupation. This was in line with Indumathi et al who found an association with male gender, nuclear families and better jobs. Nuclear families do not have the financial support systems and pooling of resources associated with traditional Indian joint families and may feel the need for health insurance more acutely. Married respondents may be more aware because of the financial responsibility placed upon them, which induces them to search for health security options.

The present study found that 33.8% of the households had accessed some form of health insurance. This was less than the 66.9% estimated by Indumathi et al and 52.5% estimated by Kala et al.^{6,9} This may be due to proximity of the study area to a public mega-hospital run by the municipal corporation. Bawa and Ruchita and Goel estimated this proportion to be 19.4% and 30.8% respectively.^{4,5}

The proportion of the sample having private health insurance policies was around 13.5% which is much higher than the 5% estimated by Indumathi et al, 8.6% estimated by Pandve and Parulekar and 7% by Patil et al. 6,7,9 This may be due to the urban setting of the study, where potential consumers tend to have higher income and more financially literate. It was also found that married status, occupation, white ration card, higher income and socio-economic class are significantly associated with subscription to health insurance. The findings suggest that the average middle-class married individual is more likely to know about and actually subscribe to health insurance.

With regard to reasons for not accessing health insurance, the main reasons cited were not given it much thought (98.5%) and other investments/savings (76.3%). This betrays a great deal of indifference and disinterest among the populace about health insurance and its benefits. Other factors cited were non-conviction about its necessity (32.1%), peers not taking insurance (27.5%) and doubtful credibility of providers (20.1). Similar concerns were cited by respondents in the IRDA Survey of 2010, Madhukumar et al and Goel.^{2,4,10}

Among those who had subscribed to private policies, there was dissatisfaction with insurance providers among 63% of the respondents due to delayed or poor response and out-of-pocket payments. The inability to avoid out-of-pocket expenses, which has been documented as an important cause of catastrophic health spending and the resulting impoverishment, suggests that health insurance in its present form cannot be the panacea for all health financing problems. Scope remains for improvement in quality of services provided by both the insurance and healthcare providers.

CONCLUSION

A deliberate effort is necessary to sensitize the public about the principles and ideas of health insurance, benefits and potential pitfalls of subscribing to health insurance, so that households can make a more objective and informed decision regarding the same. Specifically many eligible individuals are not aware even about the flagship health insurance schemes of the central and state governments. This has to be addressed immediately. Also the diversity of products and policies in the market often places the potential consumer in a decisional dilemma. Moreover many suspect the credibility of insurance providers from hearsay and experience. An accessible and transparent feedback-based platform for comparison of policies and products may be launched so that consumer freedom and responsibility are fostered. Communities should be targeted for health insurance as sentimental and cultural bonding within communities is strong in India.

The insurance market is growing at a stable Compounded Annual Growth Rate of more than 15% in India. With the push for Universal Health Coverage gaining momentum and the introduction of schemes such as the National Health Protection Scheme, both private players and the Government should maintain the progress and strengthen health financing reform by increasing an informed awareness about health insurance.

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: Thampi JG, Hadaye R. Attitude towards and utilization of health insurance in a metropolitan city: a cross-sectional study. Int J Community Med Public Health 2019;6:3922-7.