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Awareness of Health Insurance in Andhra Pradesh

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Abstract- This paper identifies the determinants of awareness of health insurance in Andhra Pradesh. The present study was carried out in Hyderabad city of Andhra Pradesh. Since the main objective of the study was to analyze determinants of awareness of the health insurance, we concentrated on the variables like the Age, Education, Gender, Occupation, Income, type of the family, and Health expenditure etc. Using pretested structured questionnaire, the primary data have been collected purposively, by covering the wide range of demographic, economic and social factors, from the randomly chosen two hundred respondents from the study area. We have applied simple statistical tools such as descriptive statistics, and along with logistic regression to identify the factors determining the awareness of the health insurance. We found that 33.5 percent of the respondents had aware of health insurance and 66.5 percent of the respondents had unaware of health insurance. The present paper concludes that the determinants of awareness of health insurance were religion, type of the family, education, occupation, annual income, when considered except type of the family, the other determinants had a statistically significant. The higher education and higher income had positive relation to the awareness of health insurance.

Index Terms- Health Insurance, Awareness of Health insurance, Determinants of Health insurance

I. INTRODUCTION

Wealth is an important constituent of human resource development. Good health is real wealth of society. It not only increases human efficiency but also decreases private and public expenditure on sickness and diseases. Health has been declared as a fundamental human right. The present concern in both developed and developing countries is not only to reach the whole population with adequate healthcare services but also to secure an acceptable level of health for all though the application of primary healthcare programmes. Healthcare services help to reduce infant mortality rate, check crud death rate, keep diseases under control and raise life expectancy. 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. 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.

1.1 Health Insurance

Health insurance is a method to finance healthcare. The ILO defines health insurance as "the reduction or elimination of the uncertain risk of loss for the individual or household by combining a larger number of similarly exposed individuals or households who are included in a common fund that makes good the loss caused to any one member" (ILO, 1996). To put it more simply, in a health insurance programme, people who have the risk of a certain event contribute a small amount (premium) towards a health insurance fund. This fund is then used to treat patients who experience that particular event (e.g. hospitalisation).

1.2 Health Insurance in India

Today many countries are shifting over to health insurance as a mechanism of financing their healthcare programme. In India, we need to shift from the current predominance of out-of-pocket payments to a health insurance programme. The reasons are very clear:

- Direct out-of-pocket payments are a financial barrier to accessing health services. On the other hand, an insured patient can walk into a health facility without the fear of financial burden;
- Direct out-of-pocket payments can push families into indebtedness or poverty. Health insurance protects the patient from the burden of raising funds at the time of illness;
- Direct out-of-pocket payments are inequitable as they place the burden on the vulnerable. Insurance through its risk pooling mechanism is more equitable; and
- Direct out-of-pocket payments do not permit patient's participation in his/her treatment. On the other hand, by its collective nature, a health insurance programme can negotiate for better quality care.

Most health insurance schemes can be classified into three broad categories, social health insurance, private health insurance and community (or micro) health insurance. In India, we have a fourth category called government initiated health insurance schemes that do not fit into any of the above three categories. Each has its own specificities. However, there are some features that overlap among the three.

A. Social Health Insurance (SHI)

Social health insurance schemes are statutory programmes financed mainly through wage-based contributions and related to level of income. SHI schemes are mandatory for defined

categories of workers and their employers. It is based on a combination of insurance and solidarity. The classical example of an SHI is the German or Belgian health insurance system. Here, employees and employers contribute to a 'mutual fund(s)' that is then used to finance the healthcare for the entire population. Citizens have to enroll compulsorily in one of these mutual funds. The government also provides significant funding to cover those who are not able to contribute.

In many low-income countries, SHI has been implemented mainly for the civil servants and the formal sector. This can lead to gross inequities. For instance in India, 18 per cent of the central government budget is used to finance an SHI for the civil servants who constitute only 0.4 per cent of the population.

In India, there are three well-known SHI schemes - the Employees' State insurance Scheme (ESIS), the Central Government Health Scheme (CGHS) and the ECHS (Ex-Servicemen's Contributory Health Scheme).

B. Private Health Insurance (PHI)

Private health insurance refers to insurance schemes that are financed through individual private health premiums, which are often voluntary, and risk rated. 'For-profit' insurance companies manage the funds.

In low-income countries like India, they provide primary insurance cover, i.e. they insure hospitalisations. On the other hand, in high-income countries, they usually provide supplementary secondary insurance cover.

C. Community Health Insurance (CHI)

Community health insurance is "any not-for-profit insurance scheme aimed primarily at the informal sector and formed on the basis of a collective pooling of health risks, and in which the members participate in its management".

The important point to note is that in CHI, the local community takes the initiative in establishing a health insurance scheme, usually to improve access to healthcare as well as protect against high medical expenses. The solidarity element is strongest in CHIs as most of the members know each other.

Community health insurance as a movement is quite active in sub-Saharan Africa. Even in Asia, we have examples from India, the Philippines, Indonesia, Cambodia, Bangladesh, etc.

D. Government-initiated Health Insurance Schemes (GHI)

As stated earlier, India has a fourth category that is not usually seen in other countries. This is the 'GHI'. The specificity of this is that the government introduces a health insurance programme, usually for the poorest and vulnerable sections of the community. In many of the schemes, the premium is totally subsidised by the government (from tax-based revenues) and is paid directly to the insurance company. Rarely, the community may be expected to pay a token amount. The insurance company or an independent body is the organiser of the scheme. These schemes last for a couple of years, depending on the political will and longevity of the government. These are seen more as populist welfare schemes rather than a long-lasting intervention.

II. REVIEW OF THE LITERATURE

The review of literature of this study selected recent studies relating to awareness and determinants of health insurance India. B. Reshmi et al. (2007), they found that 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 middle and low socio-economic groups favoured government health insurance compared to private health insurance. They suggested 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. Ahuja (2004) the study explained that health insurance was emerging as an important financing tool in meeting the health care needs of the poor. Households which have higher health expenditure and income have higher probability of renewing health insurance policy. Mudgal (2005) this study examined that whether consumption expenditure of households in rural India was insured against medical ailments. This study found that the villagers were not able to perfectly share the risk of all shocks. Indirani Gupta (2002) the study found a wide disparity across selections on willingness to participate. The challenges for the new system would be to pool individuals across risk and economic status categories, setup a multi-tier system to meet objectives of equity and efficiency in health care delivery and for planners and regulators, to keep health insurance separate from other non-health insurance. Gumber and kulkarani (2000), they found that there was strongly expressed need for health insurance among low income households in both rural and urban areas. This need has arisen primarily because of heavy burden of out-of-pocket expenditure on them while seeking health care. The need for education for rural and urban populations alike on the concept of insurance and information on health insurance is a crucial aspect in extending health insurance coverage on large scale.

III. OBJECTIVES OF THE STUDY

1. To examine the socio- economic and demographic characteristics of the selected samples.
2. To analyze the determinants of awareness of health insurance of selected samples.

IV. DATA COLLECTION AND METHODS OF THE STUDY

The present study was carried out in Hyderabad city of Andhra Pradesh. Since the main objective of the study was to analyze determinants of awareness of the health insurance, we concentrated on the variables like the Age, Education, Gender, Occupation, Income, type of the family, Premium of health insurance, and Health expenditure etc. Using pretested structured questionnaire, the primary data have been collected purposively, by covering the wide range of demographic, economic and social factors, from the randomly chosen two hundred respondents from the study area. The period of collection of the data was 2010-11. We have applied simple statistical tools such as descriptive

statistics, percentages, mean and standard deviation along with logistic regression to identify the factors determining the awareness of the health insurance.

V. FINDINGS AND DISCUSSION

Table 1 Socio- Demographic Characteristics of the Respondents

Characteristics of the respondents	Numbers	Percentage
Age (years)		
20-30	68	34
31-40	77	38.5
41-50	34	17
51-60	12	6
Above 61	8	4
Gender		
Male	144	72
Female	56	28
Religion		
Hindu	131	65.5
Christian	25	12.5
Muslim	44	22
Type of family		
Joint	50	25
Nuclear	150	75
Education		
Illiterate	13	6.5
Primary	33	16.5
Secondary	44	22
Higher secondary	36	18
Graduate	58	29
Post-graduate	16	8
Annual Income		
Up to 25000	19	9.5
25001-50000	129	64.5
50001-75000	20	10
75001-100000	11	5.5
100001-125000	7	3.5
125001-150000	5	2.5
Above 150001	9	4.5

The above table shows that socio demographic characteristics of the respondents. Most of the respondents were in the age group of 31-40 years of age (38.7 %) followed by 20-30 years of age (34 %). Only 8 percent of respondents were in the age group of above 61 years of age. Males constituted 72 per cent and females 28 per cent of the respondents. 65.5 per cent of respondents were Hindus while Christians and Muslims were 12.5 per cent and 22 per cent respectively. 75 per cent of the respondents stayed in nuclear family and 25 per cent in the joint family, 29percent of the respondents were graduates, 22percent of the respondents were secondary education level, 18percent of the respondents were higher secondary level, 16.5percent of the respondents were primary level, 8percent of the respondents were post-graduates and only 6.5percent of the respondents were illiteracy. 64.5 per cent of the respondents had annual income between Rs. 25001 to 50000 and 4.5 per cent respondents had an income of above Rs. 150001.

Table 2 Awareness and Source of information about Health insurance among the Respondents

	Awareness of the total respondents	**Number**	**Percentage**
Awareness	Yes	67	33.5
	No	133	66.5
Total		200	100
Source of Information	Television	13	6.5
	Radio	2	1
	Newspaper	26	13
	Family/ friends	18	9
	Internet	2	1
	Insurance agents	6	3
Total		67	33.5

The whole study was based on the awareness of the respondents. 33.5 per cent of the respondents were aware of health insurance. Of the total 200 respondents, 33.5 per cent of the respondents were aware of health insurance whereas 66.5 per cent of them had no idea about it (Table 2). The present study found that the respondents have low awareness of the health insurance.

Table 2 depicts the source of information and awareness of health insurance. 13 per cent of the respondents said that newspaper was the source of information followed by from family/friends (9 %), television (6.5 %), insurance agents (3 %) radio (1 %) and internet (1 %).

Table 3 Gender of the Respondents

Sl. No	Gender of the Respondents	Awareness on Health Insurance Scheme		Total
		Yes	No	
1	Male	44 (22%)	100 (50%)	144 (72%)
2	Female	23 (11.5%)	33 (16.5%)	56 (28%)
Total		67 (33.5%)	133 (66.5%)	200 (100.0%)

Note: Figures in the percentiles are percentage

The above table shows that 22 percent of the male respondents and 11.5 percent of the female respondents were aware of health insurance. Compare the male respondents, female respondents had less aware of the health insurance.

Table 4 Religion wise awareness of the respondents

Sl. No	Religion	Awareness on Health Insurance Scheme		Total
		Yes	No	
1	Hindu	40 (20 %)	91 (45.5 %)	131 (65.5 %)

2	Christian	12 (6 %)	13 (6.5 %)	25 (12.5 %)
3	Muslim	15 (7.5%)	29 (14.5 %)	44 (22 %)
Total		67 (33.5%)	133 (66.5%)	200 (100.0%)

Note: Figures in the percentiles are percentage

The above table shows that religion wise awareness of the respondents. 20 percent Hindu religion respondents, 6 percent Christian and 7.5 percent Muslim responds were had aware of health insurance. Compare to these three groups Hindu religion respondents had high rate of aware of health insurance.

Table 5 Type of Family of the Respondents

Sl. No	Type of Family	Awareness on Health Insurance Scheme		Total
		Yes	No	
1	Joint	23 (11.5%)	27 (13.5%)	50 (25%)
2	Nuclear	44 (22%)	106 (53%)	150 (75%)
Total		67 (33.5%)	133 (66.5%)	200 (100.0%)

Note: Figures in the percentiles are percentage

The above table 5 represents the type of family. Here joint family respondents were less aware of health insurance (11.5 percent), 22 percent of the nuclear respondents were aware about health insurance.

Table 6 Educational levels of the Respondents

Sl. No	Educational levels of the Respondents	Awareness on Health Insurance Scheme		Total
		Yes	No	
1	Illiterate	2 (1%)	11 (5.5%)	13 (6.5%)
2	Primary	4 (2%)	29 (14.5%)	33 (16.5%)
4	Secondary	18 (9%)	52 (26 %)	70 (35 %)
5	Higher secondary	4 (2%)	19 (9.5%)	23 (11.5%)
6	Graduate/ Diploma	32 (16%)	26 (13%)	58 (29%)
7	Post-Graduate	13 (6.5%)	3 (1.5%)	16 (8%)
Total		67 (33.5%)	133 (66.5%)	200 (100.0%)

Note: Figures in the percentiles are percentage

The above table 6 represents the education levels of the respondents. It is shown that there is less awareness about health insurance among the respondents who are less educated (primary 2%). As the education qualification increases (graduates 16 % and post-graduates 6.5 %), it is clearly seen that the awareness among the respondents is being increased.

Hence we can say from the above analysis that there is positive relationship between education and awareness of the health insurance.

Table 6 Occupations of the Respondents

Sl. No	Occupation of the Respondents	Awareness on Health Insurance Scheme		Total
		Yes	No	
1	Self employment	9 (4.5%)	60 (30%)	69 (34.5%)
2	Private employ	31 (15.5%)	38 (19%)	69 (34.5%)
3	Government employ	13 (6.5%)	0 (.0%)	13 (6.5%)
4	Business	14 (7%)	35 (17.5%)	49 (24.5%)
Total		67 (33.5%)	133 (66.5%)	200 (100.0%)

Note: Figures in the percentiles are percentage

In the following table it was shows that the private employees (15.5 %) and government employees (6.5 %) were more aware of the health insurance, when compare to those respondents who are self employed (9 %) and business (7 %).

Determinants of Awareness of Health insurance

To analyze the determinants of awareness of health insurance, a logit model will be used in the analysis of individual household's choice between awareness of health insurance and un aware of health insurance. The model uses awareness of health insurance among the households as the dichotomous dependent variable. The model uses various households as the factors influencing determinants of awareness of health insurance.

$$\left(Y = 1/X_i\right) = \frac{1}{1+e^{-\left(b_1 + \sum b_k X_{ik}\right)}} \quad \ldots (1)$$

$P_i = E$

P_i = Probability that awareness of health insurance

b_1 = constant term

b_k = coefficients

X_k = for K = 1....5, are the independent variables and subscript i denotes i th observation.

K_1 = Religion

K_2 = Type of the Family

K_3 = Education

K_4 = Occupation

K_5 = Income

Let

$Z_i = b_1 + \sum b_k X_{ik}$ ….. (2)

Then

$$P_i = \frac{1}{1+e^{-Z}} \quad \ldots\ldots (3)$$

As Z_i ranges from $-\infty$ to $+\infty$, P_i ranges from 0 to 1 and P_i is non-linearly related to Z_i.
In estimable form, the model is,

$$L_i = \text{Ln}\left(\frac{Pi}{1-Pi}\right) = Z_i = b_1 + \sum b_k X_{ik} \quad ..(4)$$

Where **L** is the logit. It shows how the log odds in favor of awareness of health insurance change as the respective independent variable changes.

Table 7

Sl. No.	Variables	Coefficient	P>|z|
1	Religion	-0.476	0.28**
2	Type of the Family	0.203	0.619
3	Education	0.402	0.002*
4	Occupation	-0.276	0.80***
5	Income	0.012	0.000*
6	Constant	5.103	0.000*
R^2		0.277	
-2 Log likelihood		190.144	
Prob > chi^2 =		4.324	

* indicates significant at 1 % level, ** significant at 5 % and *** significant at 10 %.

The above table shows that R Square 0.277, -2 Log likelihood is -190.144 and chi^2 4.324. The determinants of awareness were religion, type of the family, education, occupation, annual income, when considered except type of the family; the other determinants had a statistically significant association. Education and annual income had 1 percent level of significant, religion factor had 5 percent level of significant and occupation had 10 percent level of significant.

VI. CONCLUSION

From our study we conclude that the determinants of awareness of health insurance were: religion, type of the family, education, occupation, annual income. Education, annual income, occupation of the respondent and religion plays vital role of the Determinants of awareness of the health insurance. Higher education and higher annual income increase awareness of health insurance also will increase. Gumber and Kulkarni 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. 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. And also health insurance companies 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.

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