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THE WILLINGNESS TO PARTICIPATE IN HEALTH INSURANCE SCHEMES AMONG OF CARDIAVASCULAR PATIENTS IN COIMBATORE GOVERNMENT HOSPITAL

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Abstracts

Health is commonly thought of as the absence of disease, and indeed it is difficult to discuss one without the other. In recent years, a new philosophy of health has emerged which states health as a fundamental human rights and an integral part of development and central to the concept of quality of life. Health is the barometer of growth the body as well as the economy. A well developed human capital base of a nation plays an important role in economic development. The health insurance is a vital method of financing the spiraling costs of medical care. The high cost of hospital services coupled with the unpredictability of health needs and the inadequacy of personal savings is the primary reason for the growing importance of insurance as a means of financing health services. In spite of the growing importance of health insurance schemes, the number of people covered by health insurance is very less in India. It has been found that one of the major reasons for low health insurance coverage in India is the lack of awareness of the health schemes by the people. Willingness to join a new health insurance scheme is concerned; only 27 sample respondents are willing to participate for health insurance schemes. Reminding 73 sample respondents are not willing to participate for health insurance schemes. This is due to ignorance, income earned is spent for their day to day necessaries, not affordable, due to bar of age, postponement and some of them think that this is unnecessary. The high cost of hospital services coupled with the unpredictability of health needs and the inadequacy of personal savings is the primary reason for the growing importance of insurance as a means of financing health services.

Keywords: *Health Insurance, Willingness, Personal Saving, Medical Care & Economic development*

Introduction

Insurance may be described as a social device to reduce or eliminate risk of life and property. Under the plan of insurance, a large number of people associate themselves by sharing risk, attached to individual insurance plan that exclusively covers healthcare costs and is called Health Insurance. Insurance provides protection against risks or uncertain events and is based on the principle that what is highly unpredictable to an individual is predictable to a group of individuals. Health insurance can be defined in very narrow sense where individual or group purchases in advance health coverage by paying a fee called "premium". But it can be also defined broadly by including all financing arrangements where consumers can avoid or reduce their expenditures at time of use of services. The health insurance existing in India covers a very wide spectrum of arrangements and hence the latter- broader interpretation of health Insurance is more appropriate. Health insurance is very well established in many countries. But in India it is a new concept except for the organized sector employees. The government insurance companies started first health insurance in 1986, under the name Mediclaim; thereafter Mediclaim has been revised

to make it attractive product. Mediclaim is a reimbursement base insurance for hospitalization. Health insurance protects against the cost of illness, mobilizes funds for health services, increases the efficiency of mobilization of funds and provision of health services, and achieves certain equity objectives. Even if there is a marginal increase in the type of healthcare insurance services the existing health insurance programmers such as ESIS and Mediclaim also need substantial reforms to make them more efficient and socially useful. Government should catalyze and guide development of such social health insurance in India (**Dileep Mavalankar** and **Ramesh Bhat, 2000).**

Definition

As defined by World Health Organization (WHO), it is a "State of complete physical, mental, and social well being, and not merely the absence of disease or infirmity." Health is a dynamic condition resulting from a body's constant adjustment and adaptation in response to stresses and changes in the environment for maintaining an inner equilibrium called homeostasis.

Health Insurance

Health insurance is a type of insurance coverage that pays for medical and surgical expenses incurred by the insured. Health insurance can reimburse the insured for expenses incurred from illness or injury, or pay the care provider directly. It is often included in employer benefit packages as a means of enticing quality employees. The cost of health insurance premiums is deductible to the payer, and benefits received are tax-free.

Willing to Participate for Health Insurance Scheme

Under the plan of insurance, a large number of people associate themselves by sharing risk, attached to individual insurance plan that exclusively covers healthcare costs and is called Health Insurance. Insurance provides protection against risks or uncertain events and is based on the principle that what is highly unpredictable to an individual is predictable to a group of individuals. Health insurance protects against the cost of illness, mobilizes funds for health services, increases the efficiency of mobilization of funds and provision of health services, and achieves certain equity objectives. The financial burden of health care is, however, unduly heavy for the households belonging to the informal sector indicating a potential for voluntary comprehensive health insurance schemes for such sections of the society **(Gumber and Kulkarni, 2000).**

Table 1 Willing to Participate for Health Insurance

Willingness	Frequency	Percent
No	73	73.0
Yes	27	27.0
Total	**100**	**100.0**

Source: Primary Data

The table 1 shows willing to participate for health insurance scheme. Out of 100 respondents, only 27 sample respondents are willing to participate for health insurance schemes. Reminding 73 sample respondents are not willing to participate for health insurance schemes. This is due to ignorance, income earned is spent for their day to day necessaries, not affordable, due to bar of age, postponement and some of them think that this is unnecessary.

Data Source and Methodology

The researcher‘s knowledge and literature search, this study is the first of its kind reporting the expenditure incurred by the poor cardiovascular patients in government hospitals of Coimbatore city and their willingness to participate in health insurance scheme. It is based on the stratified random sampling, the primary data was collected by using in the review scheduled 100 cardiovascular patients were selected for the present study out of total of the 100 samples, 62 respondents were male and 38 were female patients. In order to select representative Cardiovascular patients receiving treatment in Coimbatore Government Hospital. However, due to time and resource constraints the area of coverage had been restricted to Coimbatore city as it had all the necessary characteristics for conducting a study of this kind. The sample cardiovascular patients will be drawn from government hospitals, in Coimbatore city in Tamil Nadu State. The surveyed data will manually edit, coded and then, entered into SPSS spreadsheets. After verification, the preliminary analysis of data would be carried out on the basis of frequency distributions and cross-tabulations., and the statistics such as the percentage, and logistic regression Techniques will be used.

Objective of the Study

The main purpose of the present study is to examine treatment and prevalence, awareness and enrolment of the health Insurance Schemes of Cardiovascular Patients in Coimbatore city Keeping this in view, the following specific objective have been set for the study

- To analyse the health insurance benefits and willingness to participate in health insurance schemes

The table 2 portraits the relationship between the socioeconomic characteristics and willing to pay for health insurance scheme among the cardiovascular patients. Out of 100 sample cardiovascular patients, a majority of 63.6 % of patients of the age group of 21-40 are not willing to pay for health insurance scheme and only 36.4% are willing to pay for health insurance scheme , majority of 75% of patients of the age group of 41-60 are not willing to pay for health insurance scheme and only 25% are willing to pay for health insurance scheme, Majority of 78.9% of patients of the age group of 61-80 are not willing to pay for health insurance scheme are only 21.1% are willing to pay for health insurance scheme, Majority of 100% of patients of the age group of 81-100 are willing to pay for

health insurance scheme. Hence age of the sample respondents with (p<0.095) level of significance. While analyzing the sex status of the sample respondents a majority of 67.7% patients of the male group are not willing to pay for health insurance scheme and only 32.3% are willing to pay for health insurance scheme, Majority of 81.6% patients of the female group are not willing to pay for health insurance scheme and only 18.4% are willing to pay for health insurance scheme. Hence sex of the sample respondents with (p<0.130) level of significance.

Table 2 Relationship between Socio-Economic Characteristics and Willingness to Pay for Health Insurance Scheme of Cardiovascular Patient

Willingness to pay for Health Insurance Scheme				
Social factor		**No**	**Yes**	**Total**
Age	21-40	7 (63.6%)	4 (36.4%)	11 (100.0%)
	41-60	51 (75.0%)	17 (25.0%)	68 (100.0%)
	61-80	15 (78.9%)	4 (21.1%)	19 (100.0%)
	81-100	0 (0.0%)	2 (100.0%)	2 (100.0%)
x^2 - value 6.376, df 3,		**sig. level .095**		
Sex	Male	42 (67.7%)	20 (32.3%)	62 (100.0%)
	Female	31 (81.6%)	7 (18.4%)	38 (100.0%)
x^2 - value 2.289, df 1,		**sig. level .130**		
Education	Illiterate	23 (74.2%)	8 (25.8%)	31 (100.0%)
	Primary	16 (72.7%)	6 (27.3%)	22 (100.0%)
	middle school	16 (80.0%)	4 (20.0%)	20 (100.0%)
	Secondary	15 (62.5%)	9 (37.5%)	24 (100.0%)
	higher secondary	3 (100.0%)	0 (0.0%)	3 (100.0%)
x^2 - value 2.973, df 4,		**sig. level .562**		
Occupation	Agriculture activity	2 (40.0%)	3 (60.0%)	5 (100.0%)
	Household industry	3 (75.0%)	1 (25.0%)	4 (100.0%)
	Government job in organized sector	11 (78.6%)	3 (21.4%)	14 (100.0%)
	Trade/business	6 (54.5%)	5 (45.5%)	11 (100.0%)
	Unemployed	3 (100.0%)	0 (0.0%)	3 (100.0%)
	At home	21 (72.4%)	8 (27.6%)	29 (100.0%)
	Labor	27 (79.4%)	7 (20.6%)	34 (100.0%)
x^2 - value 6.716, df 6,		**sig. level .348**		
Monthly income (In Rs.)	below 10000	29 (76.3%)	9 (23.7%)	38 (100.0%)
	10001-16000	9 (64.3%)	5 (35.7%)	14 (100.0%)
	16001-22000	5 (62.5%)	3 (37.5%)	8 (100.0%)
	22001-28000	3 (75.0%)	1 (25.0%)	4 (100.0%)
	above 28000	3 (75.0%)	1 (25.0%)	4 (100.0%)
x^2 - value 1.160, df 4,		**sig. level .885**		
Family monthly income (In Rs.)	8000-18000	39 (73.6%)	14 (26.4%)	53 (100.0%)
	18001-28001	21 (75.0%)	7 (25.0%)	28 (100.0%)
	28002-38002	8 (72.7%)	3 (27.3%)	11 (100.0%)
	38003-48000	5 (62.5%)	3 (37.5%)	8 (100.0%)
x^2 - value .514, df 3,		**sig. level .916**		
Total		73 (73.0%	27 (27.0%)	100 (100.0%)

It is interesting to note that a majority of 74.2% of the illiterate people not willing to pay for health insurance scheme and only 25.8% are willing to pay for health insurance scheme, a majority of 72.7% of the patients who have finished their primary education are not willing to pay for health insurance scheme and only 27.3% are willing to pay for health insurance scheme, a majority of 80% of the patients who have finished their middle school education are not willing to pay for health insurance scheme and only 20% are willing to pay for health insurance scheme, a majority of 62.5% of the patients who have finished their secondary education are not willing to pay for health insurance scheme and only 37.5% are willing to pay for health insurance scheme, a majority of 100% of the patients who have finished their higher secondary education are not willing to pay for health insurance scheme. Hence marital status of the sample respondents with ($p<0.562$) level of significance. While analyzing the Occupation of the sample respondents a majority of 60% of the patients who is involved in agriculture activity are willing to pay for health insurance scheme and only 40% are not willing to pay for health insurance scheme, and majority of 75% of patients who is in government job or private job are not willing to pay for health insurance scheme and only 25% are willing to pay for health insurance scheme, and majority of 54.5% of patients who involved in trade/business are not willing to pay for health insurance scheme and only 45.5% are willing to pay for health insurance scheme, a majority of 100% of patients who is unemployed are not willing to pay for health insurance scheme, a majority of 72.4% of patients who is at home are not willing to pay for health insurance scheme and only 27.6% are willing to pay for health insurance scheme, and a majority of 79.4% of patients who work as labor are not willing to pay for health insurance scheme and only 27.6% are willing to pay for health insurance scheme. Hence Occupation of the sample respondents with ($p<0.348$) level of significance.

Regarding monthly income of a person of the sample respondents is concerned; a majority of 76.3% of income below Rs.10000 are not willing to pay for health insurance scheme and only 23.7% are willing to pay for health insurance scheme, a majority of 64.3% of income between Rs.10001-Rs.16000 are not willing to pay for health insurance scheme and only 35.7% are willing to pay for health insurance scheme, a majority of 62.5% of income between Rs.16001-Rs.22000 are not willing to pay for health insurance scheme and only 37.5% are willing to pay for health insurance scheme, a majority of 75% of income between Rs.22001-Rs.28000 are not willing to pay for health insurance scheme and only 25% are willing to pay for health insurance scheme, and a majority of 75% of income above 28000 are not willing to pay for health insurance scheme and only 25% are willing to pay for health insurance scheme. Hence Occupation of the sample respondents with ($p<0.885$) level of significance. The households whose total monthly family income is between Rs.8000-Rs.18000 a majority of 73.6% are not willing to pay for health insurance scheme and only 26.4% are willing to pay for health insurance scheme, a majority of 75% between

Rs.18001-Rs.28001 are not willing to pay for health insurance scheme and only 25% are willing to pay for health insurance scheme, a majority of 72.7% between Rs.28002-Rs.38002 are not willing to pay for health insurance scheme and only 27.3% are willing to pay for health insurance scheme, and a majority of 62.5% between Rs.38003-Rs.48000 are not willing to pay for health insurance scheme and only 37.5% are willing to pay for health insurance scheme. Hence Occupation of the sample respondents with ($p<0.916$) level of significance.

Logistic Regression Model

The dependent variable (Y) is taken as willing to pay for health insurance scheme dichotomous in nature

Y= 0; Not willing to pay for health insurance

Y= 1; willing to pay for health insurance

The variables that are chosen to have influence on determining the willingness to pay for health insurance are,

- Gender of the respondent
- Age of the respondent
- Type of family of the respondent
- Social Background of the respondent
- Educational status of the respondent
- Occupation of the respondent

Explanatory Variables	Beta	Odds Ratio	Level of Sig.
Current Age	-0.055	0.947	0.70
Educational Status	1.300	3.668	0.263
Occupational Status	-0.154	0.857	0.766
Explanatory categorical Variable	**Beta**	**Odds Ratio**	**Level of Sig.**
Total monthly Income			
8000-18000	---	----	---
18001-28000	---	----	---
28001-38000	---	---	---
38001-48000	1.844	6.319	1.000
Total asset			
Below 200000	---	---	---
200001-350000	0.856	2.353	0.821
350001-500000	---	---	---
500001-650000	---	---	---
650001-800000	---	---	---
- 2 Log likelihood		**19.745**	
Chi-square (d.f.)		**10.894(7)**	
Significance Level		**0.05**	
N		**100**	
Cox & Snell R-Square (%)		**0.491**	
Nagelkerke R-Square (%)		**.662**	

The Omni bus test of model coefficients give the significant value of 0.051 which states the model is acceptable as the cut off value of Omni bus test is 0.05 ($p \leq 0.05$).

Nagelkerke R2 gives the value of 0.662 which states 66.2% of the variance is given by explained variations (X variables).

Hosmer and Lomeshow test signifies the value as 0.143, (P significant ≥ 0.05) the model is fit. The contingency table for Hosmer and Lemeshow test gives cluster analysis of the respondents. It states on the clustering the find cluster estimates the value of 3.99 out of 9 which means the model predicts 3.9 out of 9 respondents.

The model's clarification table with the variable gives 89.7% prediction against the H_0: of prediction units only constant 58.6%.

H_0:- 58.6% Prediction

H_1:- 89.7% Prediction

The H_1 prediction greater than H_0. 89.7% of outcomes predicted by model

Variables having significant odd ratios in the model:

Occupation

ß = -0.154

Exp (ß) = 0.857

The co-efficient of occupation as a determinant has significant value as it takes exp (ß) = 0.857 which shows the value is closer to 1, means the change in occupation level may influence willingness to pay for health insurance.

Education

ß = 1.300

Exp (ß) = 3.668

With a higher education qualification the willingness to pay for health insurance will increases by 3.668. It has been found that one of the major reasons for low health insurance coverage in India is the lack of willingness by people, and the lack of willingness about health insurance is highly correlated with education in our study as a result with increasing educational status the people have higher chances in getting willing to pay for the health insurance schemes.

Total Asset

ß = 0.856

Exp (ß) = 2.353

In total asset of respond, the second category variable i.e.Rs.200001-Rs.350001 are willing to pay for health insurance with increases by Exp (ß) = 2.353.

Age

ß = -0.055

Exp (ß) = 0.947

The value is closer to 1 which can be attributed as with increase in age by 1 year, the willingness to pay level increases significantly. The coefficient of age as a determinant

has a significant value as it takes Exp (β) = 0.947 which shows the value is closer to 1, means the increase in age by a year may influence willing to pay for health insurance.

Total monthly income

β = 1.844

Exp (β) = 6.319

Among the other variables included in the model, the net effects of fourth categories of total monthly income of the respondents i.e.Rs.38000-Rs.48000 are willing to pay for health insurance by Exp (β) = 6.319

Conclusions

Regarding the willingness to join a new health insurance scheme is concerned; only 27 sample respondents are willing to participate for health insurance schemes. Remanining 73 sample respondents are not willing to participate for health insurance schemes. This is due to ignorance, income earned is spent for their day to day necessaries, not affordable, due to bar of age, postponement and some of them think that this is unnecessary. Cardiovascular disease (CVD) is an important cause of mortality and morbidity in India. Mortality statistics and morbidity surveys indicate substantial regional variations in cardiovascular disease prevalence and mortality rates Coronary Heart Disease (CHD) mortality is greater in south India while stroke is more common in the eastern Indian states. This disease prevalence is higher in urban Indian populations while stroke mortality is similar in urban and rural region.

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