

# **Original Research Article**

# AWARENESS AND UTILIZATION OF HEALTH INSURANCE AMONG RURAL POPULATION IN BENGALURU: A CROSS SECTIONAL STUDY

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#### ABSTRACT

**Background:** The objective is to assess the health insurance coverage and utilization pattern in the study population

**Materials and Methods:** It is a Cross - sectional study, This study was undertaken in the rural field practice area of a Tertiary medical college, Bengaluru. Four villages were chosen randomly. Multi stage sampling method was used. Sampling units were households. Oral questionnaire was used to collect the data. Statistical analysis is data was analyzed by percentages and proportions using MS excel.

**Results:** According to this study majority of the participants were males (52%), 86% of the study participants were literates, majority (62%) of them were employed, 97% of the participants were hindu by religion Health insurance coverage was 47% in the study area.

**Conclusion:** Health insurance coverage was 47 %. Majority of the households (57%) were not aware about any health insurance schemes, majority (84%) of the participants among subscribed had not utilized health insurance. 95% of the insured population reported out of pocket expenditure on healthcare.

**Keywords:** Rural population, Health insurance awareness, Out of pocket expenditure.

# **INTRODUCTION**

Universal health coverage (UHC) is one of the goals for achieving health-related sustainable development goals (SGDs). UHC is said to be achieved when "All the people receive quality health services that meet their needs without exposing them to any financial burden in paying for them."

According to ILO (International labour organization) Health insurance is being defined as "the reduction or elimination of the uncertain risk of loss for individuals or household by combining large number of similarly exposed individuals or households who are included in common fund that make up the loss caused to any one member.<sup>[1]</sup>

In India there is huge disparity in access to health according to socio-economic status, demography, religion and caste etc. [2]

As we know Health is a basic necessity to humans. Healthcare should be available and reasonable to

afford and has to be insured to all sections of the community. Man is exposed to health risks from the time of conception, risks are unavoidable, hence our efforts should be in the direction of reducing their effects or by decreasing the incidence of risks. Hence, the concept of health insurance came in to existence.<sup>[3]</sup>

The history of health insurance in India moves back to 1923 when "Workman's compensation act" was passed. In the year 1948 there was introduction of Employees' State Insurance (ESI) act. The year 1999, with the passing of Insurance Regulatory Development Authority Bill (IRDA), started the beginning of a modern era for Indian health insurance, with a few of international players investing in the Indian health insurance market by collaborating with the local companies.<sup>[4]</sup>

As a part of improving access to health services and minimizing the economic impact, several Health insurance schemes have been launched by

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Government of India like ABPMJAY RBSY CGHS ESI etc, State governments in India have launched their own state-specific health insurance schemes particularly for the economically weaker sections, for example- Yeshaswini health insurance scheme in Karnataka, Mahatma Jyoirao Phule Jan Arogya Yojana (MJPJAY).in Maharashtra Mukhyamantri Jan Arogya Yojana (CMJAY) in bihar, The Bhamashah Swasthya Bima Yojana (In rajasthan). CMCHIS (In Tamil nadu) etc.

For most of the People living in developing countries mainly in the rural areas "Health Insurance" is still an unknown entity.It is presumed that only upper class people can afford such type of social protection.<sup>[5]</sup>

The rural population face the same morbidity and mortality risks when compared to urban population, They are more vulnerable to risks because of their social and economic situation. There is more need to provide financial security to rural families for their health.<sup>[6]</sup>

In India, Healthcare expenditures frequently burden households through Out of pocket expenditure which gradually results in poverty. Health insurance definitely forms a vital part for accessing healthcare services and cope up with most of the health related expenses.<sup>[7]</sup>

According to NFHS 5 data the households covered by a health scheme among urban population is 28.2%, among rural population is 28.0 % and overall coverage is 28.1%.<sup>[8]</sup>

Despite all efforts done by health system to assist Indian population in supporting their healthcare finances, they are not able to use these services because they are unaware of them. Hence this study was conducted to assess the level of awareness about Health insurance among adult population in rural area of Bengaluru.

#### **Objectives:**

- To assess the awareness of health insurance in rural population
- To assess the utilization of health insurance in rural population
- To determine the association between sociodemographic variables in utilization of health insurance.

# MATERIALS AND METHODS

**Study design:** This is community based cross sectional study which is conducted in rural field

practice area of Dr. B.R Ambedkar medical college and hospital. Study was carried out for the period of 3 Months.

#### **Inclusion Criteria**

- 1. Person above or equal to 18 years of age
- 2. One person per one house (Preferably head of the family)

#### **Exclusion Criteria**

- 1. Household members who does not give consent for the study
- Selected household which were locked even afterVisits

**Sample size:** Sample size estimation for estimating proportion of awareness in the population was calculated using the formula. Sample size (n) =Z2 Pq / d2 (q =1-p), As per study conducted in south india, where coverage of health insurance was 45% among rural population, [7] with a precision (5%) at 95% Confidence interval, Total sample size =380, keeping non responsive error =10%

Final sample size =418 households

There are 16 villages under Rural field practice area of Dr BRAMC, out of 16, 4 villages (Kannahalli, Manganahalli, Kodigehalli, Seegehalli) were selected by simple random sampling (Lottery method), The list of households of selected villages was obtained from the village survey report of Primary health centre ( PHC Kannalli, - ). The sampling interval (K) was calculated by using the sample size (K=Total no of household of 4 villages / sample size = 2540/418 = 6.07), Household between 1st house and 6th house was selected randomly i.e, known as the 'Random start household' by lottery method and followed by that house, every 6 th household is selected from the previous household. After following the inclusion and the exclusion criteria, Written informed consent was taken from the participant. Data was collected using pre-designed, semi structured and pretested questionnaire consisting variables on demographic characteristics. awareness. utilization of health insurance. From each house only one member was interviewed, Care was taken to ensure privacy and confidentiality of the interview. The data collection was continued until the required sample size of household is met.

#### **RESULTS**

The observations and results have been presented under the following headings:

Table 1: Socio-demographic characteristics of the respondents.

Variables	Frequency (%) (n=418)	
Age		
18-28	96 (23)	
29-38	99 (24)	
39-48	89 (21)	
49-58	76 (18)	
>59	58 (14)	
Gender		
Male	200 (48)	
Female	218 (52)	
Religion		

Hindu	407 (97)	
Muslim	11 (3)	
Education		
Illiterate	57 (14)	
Primary	43 (10)	
High School	159 (38)	
Intermediate/Diploma	84 (20)	
Degree/Postgraduate	75 (18)	
Occupation		
Unemployed	158 (38)	
Employed	260 (62)	
Socio-economic Status		
Class 1	141 (34)	
Class 2	193 (46)	
Class 3	69 (16)	
Class 4	15 (4)	

[Table 1] represents the Sociodemographic characteristics of the participants. Out of total population interviewed females constituted 52% (218) and male were 48% (200). Majority of the study participants were between the age group of 29 to 38 years, majority of them were Hindu by religion (97%), Majority had an educational status till high school 38%, followed by Intermediate/Diploma (20%), Degree/ Postgraduate (18%), Illiterate (14%)

Primary School (10%). 62% of the total Population were employed. Major occupations followed were Farmer, Flower decorators, Mechanic, Cab driver, Auto driver, Watchman and Teachers. According to modified B.G Prasad classification majority of the families belonged to class 2 (Upper middle class) - 46%, followed by Class 1 (Upper Class) -34%, class 3 (Middle class) - 16% and Class 4 (Lower Middle Class) - 4%.

Table 2: Awareness & Utilization of health insurance (HI)among study participants

Variable	Frequency	
Awareness	Frequency (n=418)	
Aware	198	47
Not aware	220	53
Aware and subscribed (n=198)	135	68
Type of Insurance	Frequency ( n=198)	
Public	172	87
Private	26	13
Source of Information of HI	Frequency (n=198)	%
Health Professional	97	49
Relatives & Friends	67	34
Others	34	17
Utilization of Health insurance	Frequency (n=198)	%
Yes	32	16
Not Yet	166	84
Out of pocket expenditure(OOPE) on healthcare even after taking Health insurance	Frequency (n=198)	%
Yes	188	95
No	10	5

[Table 2] represents Awareness and utilisation of health insurance. It is found that out of 418, only 198 participants (47%) were aware about health insurance, out of them 135(68%) had subscribed for any kind of health insurance and 220 (53%) were not aware about any type of health insurance. Majority of them 87% (117) had subscribed for Public health insurance and 17% (18) had availed private insurance. The source of Information on health Insurance among majority of the subjects was

through Health care professionals 97 (49%) followed by relatives & friends67(34%), others sources included Media, Newspaper and Community leaders which constituted 17%. Majority of the participants (84%) among subscribed have not utilized health insurance yet. Even after subscribing to a Health insurance, 95% of the participants have out of pocket expenditure (OOPE) on health care related expenditure.

Table 3: Relationship between socio-demographics and awareness

Variables	Frequency	Awareness - Yes	Awareness - No	Chi-square value	P value
Gender					
Male	200	91	106	0.2065	0.6495
Female	218	107	114		
Religion					
Hindu	407	195	212	1.83	0.17613

Muslim	11	3	8		
Education					
Illiterates	57	17	33	8.0392	0.09015
Primary	43	24	22		
High School	159	69	89		
Intermediate/Diploma	84	48	37		
Degree/Postgraduate	75	40	39		
Occupation					
Unemployed	158	71	78	0.0074	0.93137
Employed	260	127	142		
Socio-economic Status					
Class 1	141	76	66	7.8847	0.04845
Class 2	193	81	111		
Class 3	69	37	32		
Class 4	15	4	11		

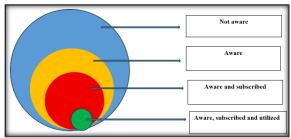


Figure 1: Awareness pattern regarding health Insurance

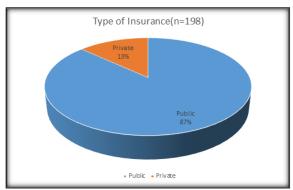


Figure 2: Type of Health insurance

[Table 3] represents relationship between Sociodemographic variables and awareness pattern. There was no significant association noted with awareness and sociodemographic variables like age, gender, occupation, education. There was significant association noted with socio economic status (p value- 0.04).

# **DISCUSSION**

This study was done to assess awareness and utilization of health insurance.

#### a) Socio-demographic characteristics:

In the present study females constituted the majority of the respondents (52%) which was similar to other studies conducted by Sudhir gowda et.al & Reshmi b et al,<sup>[6-11]</sup> The proportion of females are more than men because most of females were homemakers and flower decorators (working at home) by profession and they were at home during the time of survey and men predominantly were out for work. Contrary to it in a few other studies by Holyachi et al,&Indumathi

et al,<sup>[9,10]</sup> this ratio was reversed where males constituted majority. In our study majority of the participants were educated and the illiterate count was 14% which was similar finding in other studies conducted and in a study conducted by Netra G et al illiterates formed majority.<sup>[4,12,13]</sup>

In our study majority were employed either in skilled or unskilled works which was similar to the study conducted by Netra G et al,<sup>[3]</sup> and Choudhary et al.<sup>[12]</sup> In our study majority of the participants belongs to Class 2(46%) and class 1(34%) according to Modified B.G Prasad scale which is a contrary finding with few studies where majority population belonged to class III and IV.<sup>[3,6,11]</sup>

#### b) Awareness about Health Insurance

In our study awareness status on Health insurance was less tha 50 percent (47%) which is a similar finding in few studies (3,4,6,12) and Few other studies have reported very high awareness status >70% and very low(<30%).<sup>[5,9]</sup> In our study there was significant association found between socioeconomic status and awareness which is similar to studies conducted by reshmi B e al and Chowdary et al. [11,12]

# c) Source of Information regarding health Insurance (n=198)

In our study source of Information regarding health insurance was mainly by Health professional (49%) followed by family and friends (34%) and others (17%) which includes Community leader, Media and newspaper. In other studies conducted, family, friends and media are main source of information regarding health insurance. [11,14,15] Effective IEC Activities will improve the understanding about health insurance.

# **CONCLUSION**

Awareness of health insurance in the present study was 47%, even though the literate count was high and most of the population belonged to an affordable section in the community, Hence awareness coverage should be carried out with IEC activities, Enrolment centres should be set up in each village for easy accessibility for the population and the premiums to be customized to individual level to benefit the poorer section of the community, and Barriers for non

utilization of insurance should be evaluated and addressed promptly.

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