

## A CROSS SECTIONAL STUDY TO ASSESS THE BARRIERS IN UTILIZATION OF HEALTH INSURANCE AMONG RURAL POPULATION IN BENGALURU

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### ABSTRACT

**Background:** To assess the barriers in utilization of health insurance among the study population. **Materials and Methods:** It's a Cross - sectional study, the 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:** Data was analyzed by percentages and proportions using MS excel. **Result:** According to this study majority of the participants were males (52%), 86% of the study participants were literates, majority (62%) of them were employed, Health insurance coverage was 47% in the study area, 53 % of the population had not enrolled to any kind of health insurance, the major reasons for non-enrolment being no knowledge regarding schemes (49%), Do not feel the need (23%), High premium (19%). **Conclusion:** Health insurance coverage was 47 %. majority (84%) of the participants among subscribed had not utilized health insurance. 95% of the insured population reported out of pocket expenditure on healthcare.

## INTRODUCTION

According to 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>

According to World health report, India is the most populous country of the world and has changing socio-political-demographic and morbidity patterns that have been drawing global attention in recent years. About 75% of health infrastructure, medical man power and other health resources are concentrated in urban areas where only 27% of the population live. In India there is huge disparity in access to healthcare according to socio-economic status, demography, religion and caste etc.<sup>[2]</sup>

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>

Poverty and ill-health go hand in hand. In developing countries, high out of pocket payment, absence of risk pooling mechanism in health financing systems, and high level of poverty are said to result in catastrophic health expenditure. In such situations, health insurance (HI) is the need of the hour.<sup>[4]</sup>

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>

This study was undertaken to know the pattern of health insurance utilization pattern among adult population in rural area of Bengaluru.

### Objectives

- To assess the utilization pattern of health insurance in rural population
- To assess the barriers in utilization of health insurance.

## MATERIALS AND METHODS

**Study design:** This community based cross sectional study is conducted in rural field practice area of Dr. B.R Ambedkar medical college and hospital, Bengaluru.

### 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

2. Selected household which were locked even after 2 Visits

**Sample size:** Sample size estimation for estimating proportion of awareness in the population was calculated using the formula. Sample size (n) =  $Z^2 Pq / d^2$  ( 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 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. 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 socio-demographic characteristics, awareness, and 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

**Table 1: Socio-demographic characteristics of the respondents**

Variables	Frequency(%) (n=418)
<b>Age</b>	
18-28	96 (23)
29-38	99 (24)
39-48	89 (21)
49-58	76 (18)
>59	58 (14)
<b>Gender</b>	
Male	200 (48)
Female	218 (52)
<b>Religion</b>	
Hindu	407 (97)
Muslim	11 (3)
<b>Education</b>	
Illiterate	57 (14)
Primary	43 (10)
High School	159 (38)
Intermediate/Diploma	84 (20)
Degree/Postgraduate	75 (18)
<b>Occupation</b>	
Unemployed	158 (38)
Employed	260 (62)
<b>Socio-economic Status</b>	
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	%
<b>Awareness</b>	Frequency (n=418)	
Aware	198	47
Not aware	220	53
Aware and subscribed (n=198)	135	68
<b>Source of Information of HI</b>	Frequency (n=198)	%
Health Professional	97	49
Relatives & Friends	67	34
Others	34	17
<b>Type of Insurance</b>	Frequency ( n=135)	
Public	117	87
Private	18	13
<b>Utilization of Health insurance</b>	Frequency (n=135)	%
Yes	22	16
Not Yet	113	84
<b>Out of pocket expenditure(OOPE) on healthcare even after taking Health insurance</b>	Frequency (n=135)	%
Yes	128	95
No	07	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 to 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 13% (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 & friends -67(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 reported out of pocket expenditure ( OOPE) on health care.

**Table 3: Reasons for non-enrolment (n=283)**

Reasons	Frequency	Percentage
No Knowledge	139	49
Do not feel the need	64	23
Unaware about the process of availing	08	03
Lack of required documents	03	01
High premium	54	19
Not taken by family/friends	15	05

Out of 283 participants (Table 3) who were not covered under any type of health insurance 49% were not aware of any type of health insurance schemes, 23% of the non enrollers did not feel any need for enrolment, 19% of the population quoted high premium as the reason for non enrolment.

## 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,<sup>[4,13]</sup> and in a study conducted by Netra G et al illiterates formed majority.<sup>[3]</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 than 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% (9) and very low(<30%).<sup>[5]</sup> In our study there was significant association found between socio-economic status and awareness which is similar to studies conducted by Reshmi B et al and Chowdary et.al.<sup>[11,12]</sup>

#### **c) Utilization pattern of Health insurance**

Among the study population who were aware of any health insurance scheme (n=198), only 68% (135) of the population had enrolled for any HI scheme, Majority had subscribed for public health insurance schemes. Similar finding was observed in the study conducted in Sikkim where 49% of the population who were aware of health insurance schemes had not subscribed for any.<sup>13</sup> A total of 283/418 households (67.7%) did not have their health insured either with public or private schemes. only 22% of the subscribed have used any kind of Health insurance scheme till date and 95% (128) of the enrolled individuals had out of pocket expenditures on health care even after enrolling with the insurance. Many of participants did not understand the concept of health insurance although they were insured.

## **CONCLUSION**

Awareness of health insurance in the present study was 47%, only 68% among them had subscribed for any scheme, less than 20% of the subscribed had utilized it. Major reason for this was not being aware about health insurances or the process for utilization. This shows the gap in communication between the health personals and the general population. 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 addressed promptly.

**Limitation:** Study is conducted in one healthcare setting in selected region hence results cannot be generalized.

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