Original Research Article

Awareness and attitude regarding health insurance among insured and non-insured: a cross sectional study

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Introduction

Socio-economic development and health of community cannot be achieved in isolation as they are related with each other.¹ Despite large improvements in recent years, life expectancy in India still remains below than other countries following a similar pattern of development.²

Only 1% of the gross domestic product (GDP) is being spent for financing health care by the government.³ Curative services have always favored the non-poor. It is seen that for every Rs. 1 spent on the poorest 20% population, Rs. 3 is spent on the richest quintile. Hospitalization have forced people to borrow heavily or sell assets to cover expenses in 40% of them and have pushed almost 25% of them to below poverty line in because of its expenses.⁴ However, unfortunately, the

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Abstract

Background: Health insurance is an important mechanism in the modern world to save the individuals from the huge health shock, even then very high percentage of people even from educated higher income groups are not covered under any health insurance policy. This study was undertaken to know the knowledge, attitude and practice regarding health insurance.

Methods: A community based cross sectional study was conducted among 550 household of Uttar Kannada and Udupi districts. Multistage sampling technique was used.

Results: Of the 550 study participants, 384 (69.8%) were BPL card holders. 348 (63.27%) were aware and also subscribed for any type of the health insurance, 115 (20.91%) were aware but did not subscribe while 87 (15.82%) were not aware about it. The main source of information were health workers 185 (39.74%), friends and family 178 (38.44%) and media 99 (21.38%). Of the 348 who had health insurance, only 89 (25.57%) utilized them. Reasons for not availing health insurances other than being unaware were complicated process 85 (42.08%) and provides only partial coverage 49 (24.26%). The main reasons for not using the health insurance were non availability of empanelled hospital 84 (74.34%), disease not being under the scope of scheme 60 (23.17%) and 32 (12.36%) were unaware about the process of availing.

Conclusions: Health insurances are the best way to help people reduce their financial burden. Hence it is very important to educate the community regarding the best health insurance available so that they can take the maximum benefits from it.

Keywords: Awareness, Health insurance, Attitude, Udupi, Uttar Kannada
option of financial protection mechanism to mitigate such burden is very limited.\(^5\)

Human life is unpredictable and in case of emergency health situations, health insurance can make it safe and secure from bearing huge financial loss and decreasing economic burden on the family members.\(^6\) Health insurance is a widely recognized and preferable mechanism to finance the health care expenditure of the individuals.\(^7\)

Health insurance policy is a contract between an insurance company and an individual and comes in handy in case of severe emergencies.\(^6\) It is an instrument wherein an individual or group purchase health care coverage in advance by paying a fee called premium. It's an instrument which helps an incurred individual and households to defer, delay, reduce or altogether avoid payment for health care. These insurance system 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.\(^7\)

Although it is needless to say health insurance is an important mechanism in the modern world to save the individuals from the huge health shock, a very high percentage of people even from educated higher income groups are not covered under any health insurance policy.\(^3\)

There exists large difference in health insurance coverage between states within India, ranging from 2% in Madhya Pradesh to 87% in Andhra Pradesh (then undivided). Karnataka has insurance coverage of 17% in 2010, which is less than the countries average.\(^9\) Also till date the awareness level regarding health insurance is very poor in general masses.\(^8\) A study which was done in rural Pune in 2013 revealed that only 15.71% families had heard about health insurance, while 84.29% had never even heard about it.\(^4\)

Hence this study was undertaken to know the knowledge attitude and practice regarding health insurance in people residing in Uttar Kannada and Udupi districts.

**METHODS**

**Study type**

A community based cross sectional study was conducted for a period of two year (June 2016-August 2018).

**Sample size**

Formula for calculating sample size for single proportion is

\[n = \frac{Z (1- \alpha/z)^2 P (1-P)}{d^2},\]

- After substituting: \(P=14\%\) is the prevalence of health insurance utilisation in rural population in India, \(d=3\), \(Z (1- \alpha/z) = 1.96.\)
- Required sample size was approximated to 550 households.

**Sampling technique**

Multistage sampling technique used to collect the sample for the study (Figure 1).

**Study population**

Selected households in the two districts of Karnataka (Uttar Kannada and Udupi) were interviewed.

**Inclusion criteria**

- Adults who are present in their resident during the house visit.
- Those who give informed consent.

**Exclusion criteria**

Those not willing to participate in the study.

**Data collection tools**

The pre-designed and pre-tested proforma was used to collect information on socio-demographic profile of the study participants and also about their knowledge, attitude and practice towards health insurance. Ethical clearance was obtained from the Institutional Ethical Committee.

**Statistical analysis**

Descriptive statistics were applied and data was analyzed using proportions and percentages. Chi-square test was used to find the association between different attributes. Statistical significance was set at 0.05% level of significance \((p<0.05)\). Data entry was done using Microsoft Excel and analysis was carried out with the help of Statistical Package for Social Sciences-20.0.1 (SPSS Statistics-20.0.1).

**RESULTS**

The study was conducted in few selected villages in Uttar Kannada and Udupi districts. During the study period 550 household were interviewed regarding the knowledge, attitude and practice of health insurance. Of the 550 study participants, 291 (52.9\%) belonged to nuclear family and the remaining belonged to joint family. Almost more than half, that is 384 (69.8\%), were BPL card holders (Table 1).
Table 1: Socio-demographic features of study participants.

| Type of family     | Frequency | %   |
|--------------------|-----------|-----|
| Nuclear            | 291       | 52.9|
| Joint              | 259       | 47.1|
| Total              | 550       | 100.0|

| Card type       | Frequency | %   |
|-----------------|-----------|-----|
| No card         | 13        | 2.4 |
| APL             | 153       | 27.8|
| BPL             | 384       | 69.8|
| Total           | 550       | 100.0|

When the study participants were asked about the health insurance, 348 (63.27%) were aware and also subscribed for any type of the health insurance, 115 (20.91%) were aware but did not subscribe for health insurance while 87 (15.82%) were not aware about it. The main source of information were health workers 185 (39.74%), friends and family 178 (38.44%) and media 99 (21.38%) (Table 2).

Table 2: Awareness about health insurance schemes among the study participants.

| Awareness                        | Frequency | %   |
|----------------------------------|-----------|-----|
| Aware and subscribed             | 348       | 63.27|
| Aware but not subscribed         | 115       | 20.91|
| Not aware                        | 87        | 15.82|
| Total                            | 550       | 100.0|

| Source of information (n=463)*    | Frequency | %   |
|----------------------------------|-----------|-----|
| Through print media              | 99        | 21.38|
| Through AV media                 | 76        | 16.41|
| Health worker                    | 185       | 39.74|
| Friends and family               | 178       | 38.44|
| Religious and community leaders  | 55        | 11.88|
| School teacher                   | 44        | 9.5  |
| Compulsory enrolment             | 26        | 5.62 |

*Multiple answers were given.

Table 3: Distribution of study participants based on the availability and usage of health insurance.

| Health insurance      | Available | Used |
|-----------------------|-----------|------|
|                       | Frequency | %    | Frequency | %    |
| No                    | 202       | 36.7 | 259       | 74.43|
| RBSY                  | 190       | 34.5 | 18        | 5.17 |
| Yashaswini            | 42        | 7.6  | 24        | 6.9  |
| ESI                   | 6         | 1.1  | 11        | 3.16 |
| Sampoorna suraksha    | 12        | 2.2  | 12        | 3.45 |
| RBSY, Yashaswini      | 39        | 7.1  | 3         | 0.86 |
| RBSY, ESI             | 7         | 1.3  | -         | -    |
| Yashaswini, ESI       | 8         | 1.5  | 4         | 1.15 |
| RBSY, Yashaswini, Sampoorna suraksha | 10 | 1.8 | - | - |
| Yashaswini, Sampoorna suraksha | 3 | .5 | 2 | 0.57 |
| RBSY, Sampoorna suraksha | 13 | 2.4 | 4 | 1.15 |
| Private insurances    | 15        | 2.7  | 9         | 2.59 |
| Yashaswini private insurances | 3 | .5 | 2 | 0.57 |
| Total                 | 550       | 100.0| 348       | 100.0|

Of the 348 study participants who subscribed for health insurance, 190 (34.5%) availed Rashtriya Swasthya Bima Yojana (RBSY) which only covers the inpatient medical care of BPL card holders of which only 18 (5.17%) used the insurance. Only 42 (7.6%) had Yashaswini which covered both surgical and medical emergencies and 24 (6.9%) of them used it. Only 3 (0.86%) out of 39 (7.1%) who had both RBSY and Yashaswini used it. 10 (1.8%) had RBSY, Yeshaswini and Sampoorna Suraksha, 6 (1.1%) had ESI and 15 (2.7%) had health insurance from private companies (Table 3).

Table 4: Distribution of study participants based on reasons for not availing health insurance.

| Reasons for not availing (n=202)* | Frequency | %   |
|------------------------------------|-----------|-----|
| Not aware                          | 87        | 43.07|
| Process is complicated             | 85        | 42.08|
| Not interested as I can afford the cost of treatment | 30 | 14.85 |
| Most of the health insurance provides partial coverage | 49 | 24.26 |
| It is not cashless                 | 51        | 25.24|

*Multiple answers were given.
Table 5: Distribution of study participants based on reasons for not using health insurance.

| Reasons for not using HI (n=259)* | Frequency | %   |
|-----------------------------------|-----------|-----|
| Unaware about the process of availing | 32        | 12.36 |
| Lack of required documents       | 6         | 2.32  |
| Maintained good health            | 23        | 8.89  |
| Non availability of empanelled hospital | 84       | 32.43 |
| Episode was covered under health assurance schemes | 25 | 9.65 |
| Disease was not under the scope of scheme | 60 | 23.17 |
| Financial coverage limit of card was drained | 2 | 0.77 |

*Multiple answers were given.

Reasons for not availing health insurances were complicated process 85 (42.08%), can afford the cost of treatment 30 (14.85%), provides only partial coverage 49 (24.26%) and almost half of them, that is 87 (43.07%), because they were not aware about the health insurances (Table 4).

Table 6: Type and source of information expected.

| Type of information                   | Frequency | %   |
|---------------------------------------|-----------|-----|
| Uses of HI                            | 6         | 24  |
| Contribution of HI                    | 6         | 24  |
| Coverage, uses, subscription process, contribution | 13 | 52 |
| Total                                 | 25        | 100 |

The main reasons for not using the health insurance were non availability of empanelled hospital 84 (74.34%), disease not being under the scope of scheme 60 (23.17%) and 32 (12.36%) were unaware about the process of availing (Table 5).

Of the 202 who did not avail any type of health insurance, 177 (87.62%) were willing to subscribe for health insurance of which 139 (78.53%) wanted to subscribe immediately and 38 (21.47%) after sometime. Out of 177, 171 (96.61%) wanted to subscribe for health insurances which covered the whole family.

Of the 87 who were unaware about the health insurances, 25 (28.74%) of them were interested to know more about its uses, coverage, subscription process and contribution. ASHA workers, school teachers, health workers and insurance agencies were expected to provide information about health insurance (Table 6).

Among those who were willing to subscribe for health insurance, 170 (96.05%) preferred government companies, 62 (35.03%) expected the HI to cover more than two lakh, 58 (32.77%) expected to cover 1-2 lakh of the hospital expenses and 18 (10.17%) expected to cover more than 5 lakh. Of the 177, 33 (18.64%) expected the premium to be less than Rs. 500, 94 (53.11%) expected the premium to be within Rs 1000 and only 15 (8.47%) did not mind paying a premium more than Rs 2000 (Table 7).

Table 7: Service expected among those willing to subscribe for health insurance.

| Preferred service provider (n=177)* | Frequency | %   |
|-------------------------------------|-----------|-----|
| Government company                  | 170       | 96.05 |
| Private company                     | 60        | 33.9 |
| NOGs                                | 42        | 23.73 |
| Community organizations             | 66        | 37.29 |

Expected coverage by those who are willing to avail HI

- 25-50 k: 15 (8.47)
- 50k-1 Lakh: 24 (13.56)
- 1-2 lakh: 58 (32.77)
- >2 lakh: 62 (35.03)
- >5 lakh: 18 (10.17)
Total: 177 (100.0)

Table 8: Premium and coverage of those who have health insurance.

| Coverage                           | Frequency | %   |
|------------------------------------|-----------|-----|
| Rs.25, 001/- to 50, 000/-          | 223       | 64.08 |
| Above 1,00,000/-                   | 125       | 35.92 |
Total: 348 (100.0)
In a similar study conducted by Kaur et al in Punjab showed that 8.7% were not aware, 71.9% were aware but did not subscribe and only 19.4% were aware and subscribed and their main source of information were TV (26.5%), newspaper (21.2%), family and friends (17.4%) and agents (17.8%).

Number of people who subscribed for health insurance was more in our study compared to the study done in Punjab and this might be due to the difference in the specific health insurance that are available in different states. In another study done by Choudary et al in Jamnagar showed that 57.25% were aware and 42.75% were not aware of health insurances. The main source of information were TV (57.25%) family and friend (38%) and agents (27.5%). In a study done by Pandve et al only 15.71% families had heard about health insurance of which only 18.18% had information about government health insurance schemes and their main source of information was an insurance agent (63.63%).

Of those who did not subscribe for any type of health insurance 87.62% were willing to subscribe. Of these 18.64% of them were ready to pay a premium up to Rs 500, 53.11% were willing to pay Rs. 500-1000 and only 8.47% were willing to pay more than Rs. 2000 annually. All of them preferred health insurance that covered the whole family. In a similar study done by Ghosh in Darjeeling showed that 45% people wanted to subscribe Rs. 150-200 as yearly premium for the proposed health insurance scheme and 29% were willing to pay Rs. 200-250. Only 1.5% were ready to pay as high as Rs. 450-500. 4% respondents did not want to pay for any health insurance scheme. In another similar study done by Pandve et al only 15.71% families had heard about health insurance of which only 18.18% had information about government health insurance schemes and their main source of information was an insurance agent (63.63%).

Of those who had health insurance, many did not mind paying premium up to Rs. 2000 but also expected a high coverage of >2 lakh by 92 (26.44%) and >5 lakh by 127 (36.49%) (Table 9).

Of all the health insurance holders, 75 (21.55%) were eligible for only in patient services and only 21 (6.04%) were eligible for out-patient service, emergency service, in patient services, travel allowance and daily allowance. IP facilities that were available were only medical treatment in 190 (54.6%), medical, surgical maternity and ambulance in 114 (32.76%) and surgical with maternity and ambulance in 44 (12.64%). Only 13 (3.74%) had the freedom to select the health care institution of their will (Table 10).

**DISCUSSION**

This study was conducted to know the knowledge, attitude and practice of 550 households in Uttar Kannada and Udupi districts. In the present study it was seen that 15.82% were not aware of health insurances, 20.91% were aware but did not subscribe for any health insurance and 63.27% were aware and also subscribed for health insurance. The main sources of information were health workers (39.74%), family and friends (38.44%), print media (21.38%) and AV media (16.41%). In a similar study conducted by Pandve et al only 15.71% families had heard about health insurance of which only 18.18% had information about government health insurance schemes and their main source of information was an insurance agent (63.63%).

Two of the card holders had health insurance which was not valid and the reason for non-renewal was high premium. Premium of <Rs. 500 was paid by 304 (87.36) card holders and 18 (5.17%) paid a premium of >Rs. 2000. 223 (64.08%) were eligible for a coverage of Rs.25, 001/- to 50, 000/- and 125 (35.92%) had a coverage of >one lakh (Table 8). Frequency of premium payment in all the card holders was annually and covered the whole family.

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**Table 9: Premium and coverage expected by those who have health insurance.**

| Premium expected | Frequency | %  |
|------------------|-----------|----|
| <Rs 500          | 144       | 41.38 |
| Rs 500-1000      | 101       | 29.02 |
| Rs 1001-1500     | 67        | 19.25 |
| Rs 1501-2000     | 11        | 3.16  |
| >Rs 2001         | 25        | 7.19  |
| Total            | 348       | 100.0 |

| Expected coverage | Frequency | %  |
|-------------------|-----------|----|
| 25-50k            | 3         | 0.86 |
| 50k- 1 lakh       | 61        | 17.53 |
| 1-2 lakh          | 65        | 18.68 |
| >2 lakh           | 92        | 26.44 |
| >5 lakh           | 127       | 36.49 |
| Total             | 348       | 100.0 |

| Facilities | Frequency | % |
|------------|-----------|---|
| In patient services | 75 | 21.55 |
| In patient services and travel allowance | 252 | 72.41 |
| Out patient service, emergency service, in patient services, travel allowance and daily allowance | 21 | 6.04 |
| Total | 348 | 100.0 |

| IP Facilities | Frequency | % |
|---------------|-----------|---|
| Medical Treatment | 190 | 54.6 |
| Medical treatment, surgery, implants, preventive measures, ambulance service, maternity/delivery services | 114 | 32.76 |
| Surgery, implants, preventive measures, ambulance service, maternity/delivery services | 44 | 12.64 |
| Total | 348 | 100.0 |

| Freedom to select health care institution | Frequency | % |
|------------------------------------------|-----------|---|
| Yes                                       | 13        | 3.74 |
| No                                        | 335       | 96.26 |
| Total                                    | 348       | 100.0 |
Pandve et al. 85.71% felt the importance of health insurance for the individuals as well as families and majority gave preference to family health insurance 81.42%. These findings were similar to the findings in our study.

CONCLUSION

It was seen that many were not aware about health insurances. This shows the gap in communication between the health personals and the general population. There are few more who even if they were aware did not avail for any health insurance. This shows the lack or drawbacks in health insurances that are available. Health insurances are the best way to help people reduce their financial burden and reduce the gap of health care utilization between rich and the poor. Hence it is very important to educate the community regarding the best health insurance available so that they can take the maximum benefits from it.

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