# **Original Research Article**

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# Types of health insurance and its utilization in a primary, secondary and tertiary care setting in coastal Karnataka

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# **ABSTRACT**

**Background:** Health insurance as a tool to finance health care has very recently gained popularity in India. While health insurance has a long history, the upsurge in breadth of coverage can be explained by a serious effort by the Government to introduce health insurance for the poor in last four years. Objective of this study is to determine the types of health insurance prevalent in coastal Karnataka and to study its advantages in decreasing out of pocket expenditure.

**Methods:** A cross sectional study was done among 450 patients by administering a validated questionnaire on health insurance with details, coverage amount, presence of APL or BPL card and utilization pattern with advantages to the patient from scheme.

**Results:** Out of the 450 patients have been surveyed, 57% had availed health insurance. 35% of patients were benefited by sampoorna suraksha and 27.5% patients used KSHEMA health card. ESI and kadamba were least used. Unlimited slab was seen with aarogya bhagya and yashaswini schemes. 65% of APL category and only 35% of BPL had health insurance. 92.5% of the patients with health insurance surveyed used private hospitals for health assistance. In 25% of people, hospital visits increased due to health insurance. In 15% of patients the total expenditure on health has increased after obtaining health insurance.

**Conclusions:** 57% of the patients had some form of health insurance. Sampoorna suraksha was the most commonly used scheme and health insurance was most commonly used for in patient care.

**Keywords:** Health insurance, Healthcare expenditure, Coastal Karnataka, Sampoorna suraksha

# INTRODUCTION

Health care finance in India is largely based on Out of Pocket(OOP) expenditure and there is lack of prepayment options like medical insurance, especially in the rural sector.<sup>1</sup> In the absence of insurance, a disease will directly increase the risk of impecuniousness due to its high treatment costs and will adversely affect the welfare of the individuals as seen in Vietnam.<sup>2</sup> Compared to other developing countries, India is spending about 6 percent of

its GDP in healthcare sector which is considerably higher than others. Due to the failure of the system at various levels, low income people at the rural areas are not getting any of its benefits. These people are highly vulnerable for risks such as accidents, illness and injuries due to their poor socio- economic conditions compared to their urban counterparts and there is a need for providing financial protection to them.<sup>3,4</sup> Government of India have taken serious effort in the last few years to overcome this obstacle, in the form of micro health insurances.

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Health seeking behaviour denotes visiting the health-care facility, which includes public hospitals clinics or privately owned hospitals. Most of the government hospitals in India are notorious for their inadequate infrastructure, poor quality treatment, long waiting periods and lack of individual attention. Low income people have limited access to the high cost care at private hospitals and resort to self-treatment, thereby bypassing services at these primary care centres. <sup>5,6</sup> Micro Health Insurance schemes addresses such issues at the grass root level and eliminates the financial barriers for obtaining quality treatment. Various such insurances are popular in Karnataka, such as Yashasvini scheme, rashtriya swasthya bima yojana (RSBY), sampoorna suraksha program, private health cards etc.

Karnataka State co-operative department introduced the yeshasvini co-operative farmers health care scheme (YCFHCS) in 2003 on a public-private partnership basis for members of rural cooperative societies. The premium is just Rs.150 per annum with a cover limit of Rs.2 lakhs per person per year and is available in over 385 network hospitals.<sup>7,8</sup>

Rashtriya swasthya bima yojana (RSBY) is a Central Government scheme and was introduced in 2009-10, with the objective of providing "quality medical care to BPL families for treatment of diseases involving hospitalization and surgical procedures. The annual registration fee is just Rs.30 with a premium of up to Rs.750 per year which is completely subsidized by the Government. The insurance cover limit is Rs. 30,000 per annum for a five-member family on a floater basis. 10

Sampoorna suraksha programme (SSP) is an innovative micro health insurance scheme by Sri Kshetra dharmasthala rural development project to its self-help group members and it is functional since 2004.It spans over nine districts covering 8,000 villages, 41 towns with over 16 lakh members. Annual premium is Rs 220 per person and is collected as small amounts weekly to reduce the burden on poor families with a cover limit of Rs 5000 per family member per year. <sup>11</sup>

In addition to these health insurance schemes, private health cards are provided by various hospitals which allow the patients to avail reduction in the cost of various services like laboratory and inpatient charges. Examples of such cards are KSHEMA card provided by K S Hegde Charitable Hospital in Mangalore and Manipal card issued by the Manipal Hospitals. The objective of this study is to determine the presence of health Insurance among patients attending a primary, secondary and tertiary setting of coastal Karnataka and to identify their effectiveness in improving healthcare utilization and decreasing out of pocket expenditure.

#### **METHODS**

A cross sectional study was done among 450 patients, with 150 each attending a primary health centre (PHC), community health centre (CHC) and a tertiary care hospital at Mangalore, Karnataka from March 2016 to September 2016. After obtaining the institutional ethical clearance, an interviewer administered the questionnaire in the regional language. The questionnaire was validated for content and translation and was given after taking informed consent. It consisted of questions on presence of health insurance with details, coverage amount, and presence of APL or BPL card and utilization pattern of insurance with advantages to the patient from the health insurance scheme. All patients who were above 18 years of age and literate enough to understand the questions were included in the study. Patients who were not consenting to take part in the study, those who were too old or severely ill and those who were not in the right mental status to understand the questions were excluded. Data obtained was cleaned using Microsoft Excel and was analysed using SPSS version 16.

# **RESULTS**

450 patients had been surveyed, of which 57% had health insurance and 43 % were not insured. Majority of the insured individuals were from APL households (55%). In majority of schemes, health providers were private hospitals (90%) and the most common scheme was sampoorna suraksha (38%). 22% patients used KSHEMA health card (a private institution card). ESI and kadamba were least used. (Table 1) Unlimited slab was seen with aarogya bhagya and yashaswini schemes. All patients with health insurance in our survey used inpatient modality of treatment whereas only 34.9% of patients used it for outpatient care. 75% of patients used it for surgery (Table 2). In 23.3% of people, hospital visits increased due to health insurance. In 13.4% of patients the total expenditure on health has increased after obtaining health insurance. 28% of the patients used it once a year and 22% utilized it twice. 23% of individuals were first time users (Table 3).

Table 1: Distribution of different health insurance schemes.

Name of the scheme	No. of insured members	%
Arogya bhagya (AB)	13	5
RSBY	21	8
Yashaswini	31	12
Sampoorna suraksha	96	38
Kadamba trust	8	3
ESI	18	7
Manipal health card	13	5
Kshema health card	56	22

Table 2: Distribution of study population according to treatment modalities covered by the insurance schemes.

Name of the scheme	No. of patients	%
Inpatient alone	56	21.8
Inpatient and outpatient	4	1.6
Inpatient and surgery	103	40
Inpatient, outpatient	81	31.7
and surgery		
Outpatient alone	4	1.6
Surgery alone	8	3.3

Table 3: Distribution of the study population according to frequency of utilization of health insurance.

Name of the scheme	No. of patients	%
First usage	59	23
Once a year	72	28
Twice a year	56	22
Thrice a year	15	6
Rarely	54	21

# **DISCUSSION**

Studies on effectiveness and utilization of health insurance schemes are scarce in South India, especially in Karnataka. Among our study population, only 57% had some form of health insurance, which was the first objective of this study. This finding can be go hand in hand with the findings of the study conducted by Reshmi et al in Mangalore, where the awareness about health insurance among the respondents was only 64%. 12 In another study by Jangati et al in Hyderabad, about 66.5% of people did not know about the available health insurance schemes. <sup>13</sup> Majority of the insured individuals in our study belonged to APL category (55%) which can be explained by their higher level of education. This positive association between higher education, income and higher awareness scores about health insurance have been shown by two previous studies by Savitha et al in three major districts of Karnataka and Madhukumar et al in Bangalore respectively in 2012. 10,14

90% of the health providers chosen by the insured individuals were coming under the private sector and this is due to the higher quality of health care and better infrastructure compared to government hospitals. The number of public sector hospitals registered as network hospitals in various insurance schemes are very low. Regarding the prevalence of various insurance schemes among the population, sampoorna suraksha was found to be the most common insurance scheme used. (38%) This may be due to its user-friendly features like very low premium, minimum processing time and wide range of network hospitals in Karnataka. We tried to measure the increased health care utilization among the population through the usage of health insurance and found that in

23.3% of people, hospital visits increased due to insurance and only in 13.4% of patients the total expenditure on health has increased after obtaining insurance. This could be due to the reason that the awareness of health insurance in Toto is not known to the people. Procedures for availing various services under these schemes and the list of network hospitals where each service are available are not properly informed to the patients leading to poor utilization of the services offered. We strongly emphasis on the need for improving the awareness about the various health insurance schemes especially among the low-income groups in rural areas for allowing them to access quality health care services at the lowest cost.

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