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Original Research Article

Out of pocket expenditure among Rashtriya Swasthya Bima Yojana beneficiary and non-beneficiary patients admitted to a tertiary care centre, Berhampur, India: a comparative study

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ABSTRACT

Background: RSBY, a health insurance scheme, was launched by the Indian government to protect BPL families from incurring financial liabilities which are likely to occur due to hospitalization. Objectives was to compare over all OOPE among RSBY beneficiaries and non-beneficiaries and to estimate its extent during hospitalization in different domains among RSBY beneficiaries and non-beneficiaries.
Methods: It was a cross-sectional study conducted for 2 months (January-February 2018) among BPL families residing in Ganjam district, Odisha. Multistage random sampling was done. Total sample size was 256, the number of beneficiaries and non beneficiaries taken was 128 each.
Results: Non beneficiaries incurred higher overall OOPE higher i.e. 95.3% than the Beneficiaries and it was found to be statistically significant with x^2=74.8 and P-value <0.001. Among beneficiaries out of pocket expenditure was found in 46.1% of the study population. 45.3% of beneficiaries had to borrow partially from friends and relatives to fulfil their hospital related expenses followed by 32% borrowing fully for their treatment. Among beneficiaries, most out of pocket expenditure was for life support services as they sought treatment mostly for surgical conditions.
Conclusions: Health insurance coverage should be improved by increasing enrolment. People should be made aware about the services covered under the schemes.

Keywords: Beneficiary, BPL, OOPE, RSBY

INTRODUCTION

Out-of-pocket expenditure (OOPE) are defined as direct payments made by individuals to health care providers at the time of service use.[1] Healthcare access in India is affected with 70:70 paradoxes; 70 per cent of healthcare expenses in India are incurred by people from their pockets.[2] A good health financing system will help people to access health services when needed. Affordability of health services also depends upon it.[3] Rashtriya Swasthya Bima Yojana (RSBY) is a health insurance scheme. It was launched in early 2008 and was initially designed to target only the Below Poverty Line (BPL) households, but has been also expanded to cover other defined categories of unorganised workers.[4] The premium cost for beneficiaries is shared by the Centre and the State. There is freedom to choose the care provider and is a cashless service.[2,3]

Since 1st April 2015, the Scheme Rashtriya Swasthya Bima Yojana (RSBY) has been transferred to Ministry of Health and Family Welfare. It is administering and implementing the scheme through a decentralized implementation structure at the State level with the

objectives of providing financial protection against catastrophic health costs by reducing out of pocket expenses and improving access to quality health care for below poverty line households and other vulnerable groups in the unorganized sector.[4]

Rashtriya Swasthya Bima Yojana (RSBY) was launched in Odisha in the year 2009. In the first round six districts namely Nayagarh, kalahandi, Jharsuguda, Deogarh, Nuapada and Puri were identified for implementation. In the year 2011-12 the scheme was been extended to all 30 districts of the state. Odisha is one of the Pioneering States in implementation of Rashtriya Swasthya Bima Yojana. The State Government has been vigorously pursuing the implementation of the scheme in the State.[5]

In our study set up few studies have been done on Out of Pocket Expenditure among RSBY beneficiaries. So, to know elaborately about the expenditure among them, we have done this study with the objectives was to compare over all OOPE among RSBY beneficiaries and non-beneficiaries and to estimate its extent during hospitalization in different domains among RSBY beneficiaries and non-beneficiaries.

Operational definition

RSBY beneficiaries: Those BPL households who had RSBY card and were enrolled under this scheme.

Non beneficiaries: Those BPL families who were not enrolled and neither they had any smart card and could not avail any health insurance coverage.

Acute conditions: Acute conditions included acute medical diseases like (e.g. fever, diarrhoea), emergent surgical, injuries and pregnancy related conditions.

Chronic conditions: Included chronic medical and non-emergent surgical conditions.

Domains for OOPE: (a) All medications and consumables such as syringes, devices for intravenous infusion, etc. were considered under the drugs. (b) All biochemical, microbiological and pathological investigations were included in the diagnostics. (c) Facilities such as oxygen and blood were defined as life support services.

METHODS

It was a cross-sectional study conducted for 2 months (January-February 2018) among BPL families residing in Ganjam district, Odisha.

Taking 80% as percentage of RSBY beneficiaries who had incurred OOPE for hospitalisation 4, with 5% absolute precision; the sample size was calculated as 256 using the formula $4pq/l^2$, where p =80, q(100-80)=20. Out of 256, the number of beneficiaries and non beneficiaries taken was 128 each.

Sampling method

Multistage random sampling was done. Out of 22 blocks in Ganjam district, 1 block i.e. (Chattrapur) was randomly selected by lottery method. Out of the 17 GPs present in Chattrapur block, 20% i.e. 3 GPs were included because of resource constraint. The GPs were selected for the study by random number table. From each GP, 5 villages were selected. The BPL household list of the villages was obtained from Anganawadi and 17 randomly selected BPL households from each village were visited with the help of Anganwandi worker till our required sample size was obtained. Those households who had smart card and were enrolled under RSBY Scheme were considered as beneficiaries and those who had no smart card were non-beneficiaries (Figure 1).

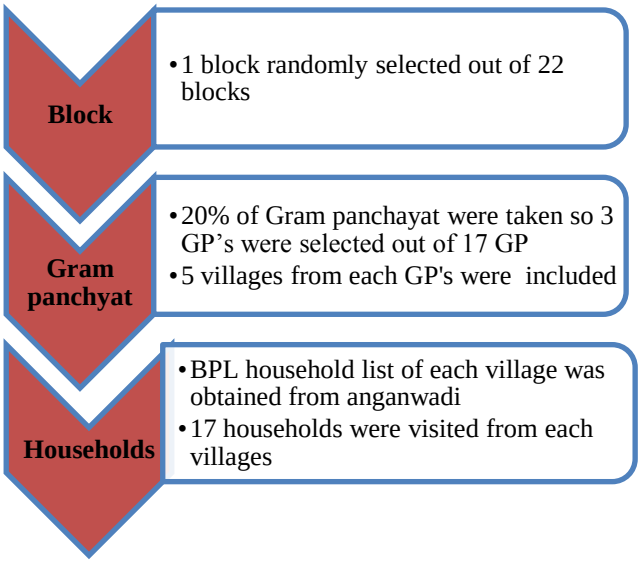

Figure 1: Sampling method.

Inclusion criteria

- RSBY beneficiaries who had at least 1 hospitalization in tertiary care centre.
- BPL family who had at least 1 hospitalization and were not RSBY beneficiaries (either they did not have card or).

Study instrument

Semi structured and pretested questionnaire was used to collect the information on socioeconomic and demographic characteristics, treatment details, over all OOPE and OOPE for hospitalization.

Data analysis

Data were collected and analysed in SPSS Version 17. Results were expressed in frequency, Percentage. Chi-

square test was used to find association. P-Value <0.05 was considered to be significant.

RESULTS

Table 1 shows that majority of study population (84.4%) belonged to age group of 19-60years. There were 78.5% males and 80.9% never went to school and among them 45.7% were engaged in agricultural works. Most of the respondents were in lower socio-economic class as per Modified Prasad BG.

Table 1: Socio-demographic and economic characteristics of patients (n=256).

Characteristics	Number (256)	Percentage
Age group of patients in years		
0-18 yrs	22	8.6%
19-60yrs	216	84.4%
>61yrs	18	7.03%
Sex		
Male	201	78.5%
Female	55	21.5%
Caste		
General	169	66%
S.C	49	19.1%
S.T	38	14.8%
Religion		
Hindu	187	73%
Muslim	48	18.8%
Others	21	8.2%
Education		
Never attended school	117	80.9%
Class 1-5	22	8.6%
Class 6-10	26	10.1%
Higher secondary and above	1	0.4%
Occupation		
Agricultural	117	45.7%
Unemployed	95	37.1%
Skilled/unskilled	18	7%
Other employment	26	10.2%
SES		
Upper	0	0%
Upper middle	7	2.7%
Middle	28	10.9%
Lower middle	92	35.9%
Lower	129	50.5%

Table 2 shows that acute and surgical conditions were the reasons for hospitalization which is significantly in higher proportion among beneficiaries compared to non-beneficiaries with P-value <0.05.

Non beneficiaries incurred higher overall OOPE higher i.e 95.3% than the beneficiaries (Table 3) and it was found to be statistically significant with x^2=74.8 and P-value <0.001. Among beneficiaries out of pocket expenditure was found in 46.1% of the study population.

Table 2: Treatment characteristics among beneficiaries and Non beneficiaries.

Characteri-stics	Beneficiaries (n=128)	Non beneficiaries (n=128)	Chi-square p-value
Type of treatment			
Medical	59(46.1%)	77(60.2%)	5.0824 p-value =0.0241*
Surgical	69(53.9%)	51(39.8%)	
Chronicity of disease			
Acute	74(57.8%)	49(38.3%)	9.7805 p-value=0.0017
Chronic	54(42.2%)	79(61.7%)	

Table 3: Over all OOPE among beneficiaries and non-beneficiaries.

OOPE Charact-eristics	Beneficiaries (n=128)	Non benefit-ciaries (n=128)	Total	Chi-square p-value
Present	59 (46.1%)	122 (95.3%)	181 (70.7%)	X^2 = 74.8 p-value <0.0001*
Absent	69 (53.9%)	6 (4.7%)	75 (29.3%)	
Total	128 (100%)	128 (100%)	256 (100%)	

Table 4: Out of pocket expenditure in different domains among beneficiaries and non beneficiaries of RSBY scheme.

Domains	Benefici-aries (n=59)	Non benefici-aries (n=122)	Total	Chi-square p-value
Drugs /consumables	13 (22.8%)	63 (51.6%)	76 (45.8%)	X^2 = 27.8 P = 0.0001*
Diagnostics	21 (36.8%)	48 (39.3%)	69 (38.5%)	
Life support services	23 (40.4%)	11 (9%)	34 (19%)	

Table 4 shows that of non-beneficiaries who incurred OOPE for drugs and diagnostics were significantly higher among Non-beneficiaries as compared to beneficiaries. Among beneficiaries, most out of pocket expenditure was for life support services as they sought treatment mostly for surgical conditions whereas non beneficiaries spent a majority part on drugs/consumables. This difference was found to be statistically significant with p <0.05.

Figure 2 illustrates that 45.3% of beneficiaries had to borrow partially from friends and relatives to fulfil their hospital related expenses followed by 32% borrowing fully for their treatment.

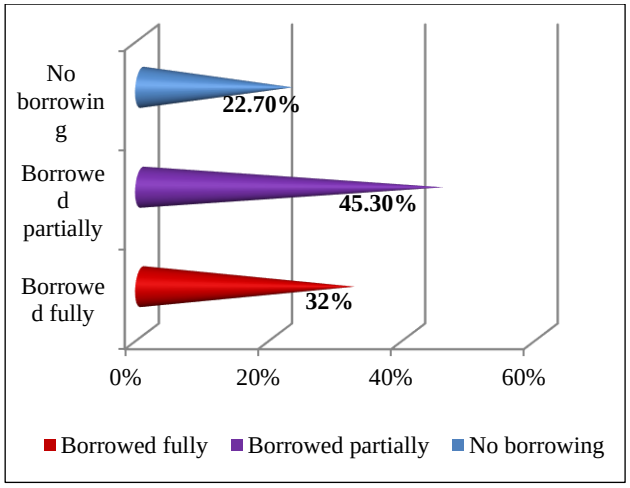

Figure 2: Effect of financial constraints among Beneficiaries (n=59).

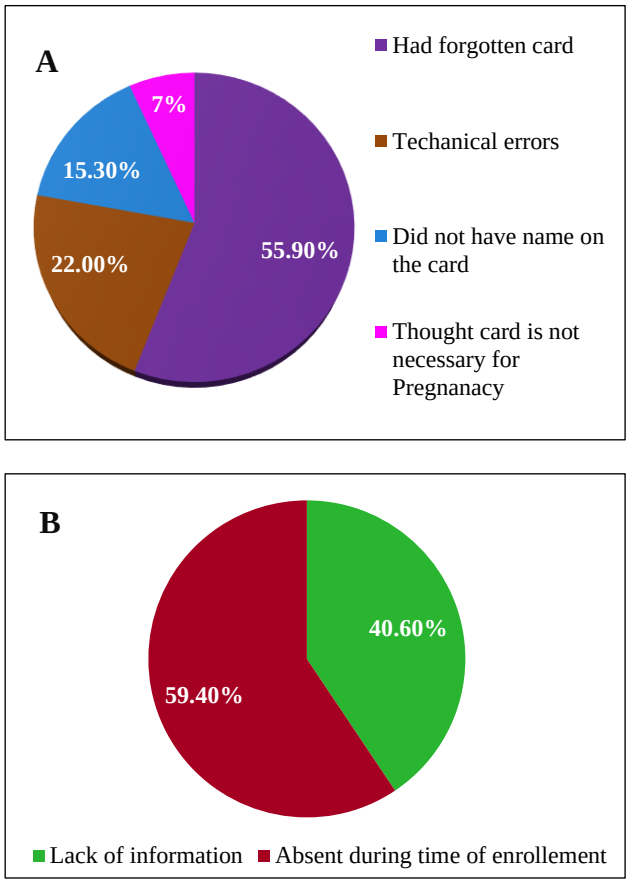

Figure 3: (A) Reasons for non-availment of the services among beneficiaries (n=59), (B) Reasons for non-availment of the services among non-beneficiaries (n=128).

Figure 3 (A) illustrates that in the present study among beneficiaries 55.9% of study population could not avail RSBY Scheme as they had forgotten to get the card due to lack of information about this scheme, followed by technical error and only 7% thought the smartcard was not necessary for pregnancy related conditions.

Figure 3 (B) illustrates that in the present study among non beneficiaries 59.4% of study population were not enrolled under RSBY Scheme as they were absent during the enrolments and 40.6% due to lack of information. They could not utilize this scheme even though they were in need of this scheme.

DISCUSSION

RSBY, a health insurance scheme, was launched by the Indian government to protect BPL families from incurring financial liabilities which are likely to occur due to hospitalization. It aimed at reducing OOPE for the card holders because OOPE is a cause of health related poverty.

It was seen in the present study that hospitalisation was more for both acute illnesses and for surgical conditions among the beneficiaries as compared to non beneficiaries. This could be because having some form of health coverage influences the health and treatment seeking behaviour of the beneficiaries.

The OOPE on surgery-related hospitalization was 1.7 times more than the non-surgery related admissions. According to the study done by Rout K S et al, it was found that, the higher mean OOPE for surgery was mainly due to two factors: diagnostic-related expenditure and nonmedical expenditure.[6] Patients incurred more expenditure on diagnostic services and food and accommodation which is a major part of nonmedical expenditure for surgery-related hospitalization. It was observed that the patients admitted in surgery unit had to stay for a longer period and this was the main reason for more nonmedical expenditure. This showed that the nonmedical OOPE contributed more to the financial burden of surgery-related admissions.

Enrolment in RSBY reduces the OOPE. In the present study statistically significant association was found between overall OOPE and coverage under RSBY. However, the RSBY beneficiaries also had OOPE in different domains. The expenses were incurred mainly on extended life support services followed by investigations and drugs. The reasons could be the expenses incurred after discharge from the hospital which are not covered under the scheme and the utilization of hospital services beyond the insurance coverage limit. Another reason for OOP could be that patients treated under the RSBY schemes are often asked to buy medicines and diagnostics which are not included in the benefit packages.

In the study conducted by Rout KS et al, in Odisha it was found that the major components of OOPE was indicated due to expenditure on medicine which was accounted for 24%, followed by the expenditure on diagnostic services.[6] In another study based on a primary survey in Odisha, it was reported that the share of medicine was 53% in total OOPE in 2010.[7] A study done by Gopalan et al, in Odisha had observed that expenditure on diagnostic services

constitutes 39% of the total OOPE.[8] Although the expenditure on medicine has reduced substantially, patients incurred more on diagnostic services and other consumables.

The insurance coverage limit also has not increased since the start of the scheme. However, in a study conducted in Gujarat by Devadasan et al, found that 58% of patients still made OOP payments at the time of hospitalisation.[9] In another study conducted in Andhra Pradesh it was reported that insured households incurred OOPE due to hospitalization.[10]

In the present study it was found that 45.3% of beneficiaries borrowed partially from friends and relatives to full fill their hospital needs and their treatment. In a study done in Odisha among the insured persons, 26% borrowed fully to meet the hospitalization expenditure.[6] This indicated that those BPL family who were covered under the scheme still could not have reduction in the financial hardship.

In the present study nearly 60% were absent during the process of enrolment and the rest did not know about the scheme. It is important to educate the eligible people about the benefits of the scheme and to increase enrolment in health insurance schemes. Prior information should be given to beneficiaries for enrolment in the schemes.

In the study conducted by Sharma P et al, in Surendranagar district of Gujarat it was reported that major reason for the non enrolment was the unavailability of their names in the BPL list.[11] Among the beneficiaries only one-third i.e. (36%) could utilize the services. Those who did not utilize reported that they had not received RSBY cards which was the major reason for the non utilization of RSBY.

CONCLUSION

Health insurance coverage should be improved by increasing enrolment. Long term care if needed after hospitalisation should be covered in order to bring down OOPE of the beneficiaries. People should be made aware about the services covered under the schemes.

Present study reveals that even though expense during hospital stay was less but due to unawareness or lack of prior information beneficiaries had to bear out of pocket expenditure during hospitalisation or after discharge. The reasons behind the persistence of OOP despite the coverage of the RSBY need deeper exploration. Nevertheless, we have tried to come up with some plausible explanations for this observed trend. One of the reasons for not seeing significant reduction in the extent of OOP could be that most patients treated under the RSBY schemes often buy medicines and spend in diagnostics services though they are actually included in the benefit packages.

RECOMMENDATIONS

The benefit package should be made more generous by increasing the coverage substantially. The scheme provides coverage for those BPL families who are hospitalised. The health insurance schemes should also take care of out patient costs specially for chronic diseases which are a cause of OOPE. The insurance schemes should include conditions not covered under the RSBY.

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