# Effectiveness of Rashtriya Swasthya Bima Yojana : A Case Study in Rural West Bengal, India

\* Mampi Bose

#### **Abstract**

Rationale: Out of pocket expenditure on health, as share of total health expenditure, is very high in India. High expenditure on health has a negative impact on households' economic and health conditions. In order to reduce expenditure and improve utilization of healthcare services, the Government of India launched an insurance scheme, Rashtriya Swasthya Bima Yojana (RSBY) in 2008. The paper intended to find how successful the scheme has been in terms of reducing out of pocket expenditures and improving institutional delivery.

Data & Method: Primary data were used to analyze the effectiveness of the scheme in terms of reducing out of pocket expenditures. I followed multistage sampling method to collect data. Data was collected in 2014 taking 2 years as reference period. Around 251 households were surveyed using a semi structured questionnaire. I used the propensity score matching model to analyze the effectiveness.

Findings: The scheme failed to achieve its goals. The scheme did not prove to be inclusionary in nature and suffered from several pitfalls at different stages of its implementation.

Keywords: RSBY, institutional delivery, out of pocket expenditure, health insurance

JEL Classification: I130, I140, I180

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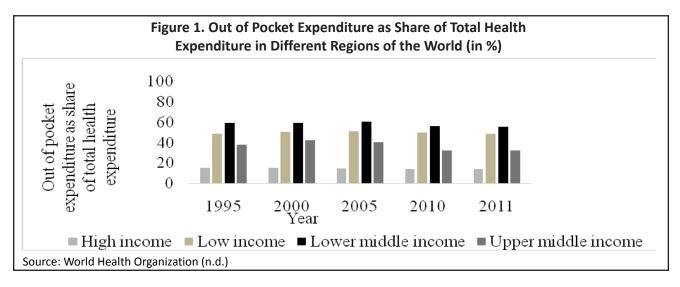
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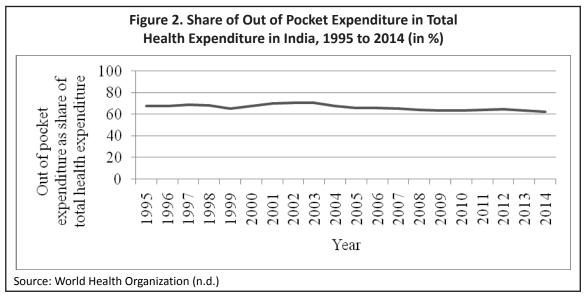
his paper discusses the effectiveness of RSBY (Rashtriya Swasthya Bima Yojana) in terms of improving institutional delivery and reducing out of pocket expenditures during child birth in rural West Bengal, India. The RSBY was introduced with the objective of providing health coverage to poor people who are mostly engaged in informal activities and are deprived of any social security measures. The scheme bears the inpatient medical cost of enrolled people. The scheme aims to reduce out of pocket expenditure for inpatient care.

Out of pocket expenditure on health as share of total expenditure on health is very high in low and middle income countries. In high income countries, although health care is provided through tax revenue and social insurance, out of pocket expenditure is significant as well. In low income countries, the share of out of pocket (OOP) expenditure increased, very negligibly, from 48.4% to 48.8% between 1995 and 2011. However, expenditure (OOP) registered a fall in lower as well as upper middle income countries between 1995 and 2011, from 59% to 55% and 37.7% to 32.4%, respectively. In high income countries, OOP expenditure fell by 6% from 1995 to 2011 with the current expenditure level at 14% (Figure 1).

In India, out of pocket expenditure on health as share of total health expenditure was very high in 2014. The share reduced from 67.45% to 62.42% of total health expenditure between 1995 and 2014. However, the share of OOP expenditure in total health expenditure continued to be high and accounted for more than 60% of the total

<sup>\*</sup>*Ph.D. Candidate*, Jawaharlal Nehru University, New Mehrauli Road, New Delhi, Delhi -110 067. E-mail: bose786@gmail.com





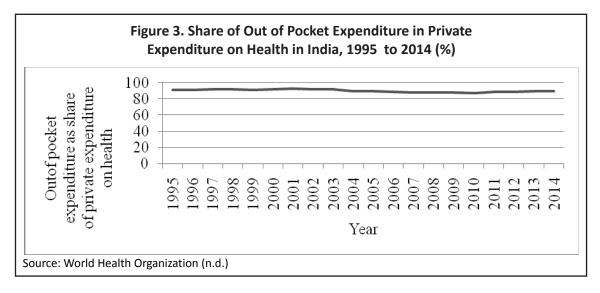


Table 1. Per Capita Expenditure on Health in Rural India Across Major States, 2011-12 (₹)

	2011 - 12		
States	Medical (Institutional)	Medical (Non-Institutional)	
Andhra Pradesh	34.24	91.17	
Assam	3.62	25.64	
Bihar	12.01	39.83	
Chhattisgarh	16.38	40.36	
Gujarat	34.4	47.18	
Haryana	34.16	79.14	
Karnataka	65.54	56.97	
Kerala	92.85	151.56	
Madhya Pradesh	17.74	48.27	
Maharashtra	46.47	68.98	
Orissa	20.38	46.19	
Punjab	62.69	133.57	
Rajasthan	26.14	66.1	
Tamil Nadu	32.6	66.11	
Uttar Pradesh	33.58	72.05	
West Bengal	22.46	68.58	

Source: National Sample Survey Office, Ministry of Statistics and Programme Implementation (2014) in current prices.

health expenditure (Figure 2). OOP expenditure as share of total private expenditure fell from 91.36% to 89.21% between 1995 and 2014, but it was still high (Figure 3). Kumar and Bhatia (2014) also observed out of pocket expenditure on health to be very high in both rural as well as urban areas. Per capita out of pocket expenditure (monthly) on health (both institutional and non-institutional) varied across states, and for some states like Kerala (institutional) and Punjab (non-institutional), the expenditure was very high (Table 1).

High out of pocket expenditure on health has an 'impoverishing' effect on households. It has been argued that households fell below the poverty line due to high expenditure incurred on health (Berman, Ahuja, & Bhandar, 2013). Also, it was shown that the cost of inpatient care was lower as compared to outpatient care, although the former is supposed to be more expensive. However, poor people mostly prefer not to avail inpatient services in order to save themselves from the catastrophic effect of high out of pocket expenditure on health. Therefore, the problem is twofold. Firstly, households are not seeking health care services in order to avoid high expenses, which increase the social cost if the individual concerned is suffering from a communicable disease and generates a negative externality. Secondly, those who do avail such services are more likely to get trapped in poverty. This paper evaluates the programme in terms of reducing the out-of-pocket expenditure and improving institutional deliveries in Jalpaiguri district, West Bengal with the help of primary data.

## Rashtriya Swasthya Bima Yojana (RSBY)

The Government of India launched the Rashtriya Swasthya Bima Yojana (RSBY) in 2008 in 25 states in order to cover below poverty line (BPL) families included in the district BPL lists prepared by the State government and as per Planning Commission estimates. BPL population, NREGA, ASHAs, contractual postmen, railway coolies and hawkers, domestic workers are the target population. Maximum insurance coverage was ₹30,000 per family

per year. Package rates include transportation costs of  $\ge 100$  per visit maximum up to  $\ge 1000$  per year; 75% of the funds are provided by the Central government, and the remaining 25% are provided by the state government.  $\ge 30$ /- is collected from the beneficiaries at the time of enrollment as registration fee.

A maximum premium of ₹ 750/- per household is transferred to the insurance company. Also, the scheme provides for transportation of ₹ 100/- with a limit of ₹ 100/- per hospitalization. Pre and post hospitalization expenses are also covered under the scheme. However, out - patient expenditures are not covered under the scheme. Also, it does not cover expenditure on medicines.

The business model of RSBY involves five different parties: (a) the government, (b) insurance company, (c) intermediaries, (d) health care providers, and (e) beneficiaries. Insurance companies are selected by state governments. This selection is done through bidding. Insurance companies sign a contract with third party administrators (TPAs) (IT departments and other third parties or NGOs). NGOs reach and identify the beneficiaries and create awareness among the population. The IT section provides smart card services, processes biometric information, takes fingerprints and photographs. Also, insurance companies select hospitals (both public and private) for providing care to beneficiaries free of cost. These empanelled hospitals are reimbursed the cost by insurance companies.

The scheme provides smart cards to the beneficiaries. The smart card provides cashless access to health care services. The beneficiary has to go to empanelled hospitals to access these services. Smart cards issued after 2009 cover maternity benefits. The scheme promises to provide "all expenses related to delivery of the baby in the hospital" but 'all expenses' cannot exceed ₹ 2500/- for a normal delivery and ₹ 4500/- for a caesarean delivery, which is obviously far too low.

#### **Review of Literature**

Drèze and Sen (2013) expressed their concern about the RSBY model, noting some issues that could originate from this type of model and could damage the whole spirit of the national health system. Those issues are as follows. First, the efficiency issue: as noted earlier, the private insurance market suffers from adverse selection and moral hazard problems. The insurers end up insuring only low-risk people due to the adverse selection problem and providers have incentives to use cheap treatment methods and treat only those who can be treated that way due to the moral hazard problem. Second, the distortion issue: there is bias of private insurers against preventive services and pre-hospitalization treatment. Third, the targeting issue: BPL people are entitled to the services. However, the identification process itself is unreliable. Fourth, the equity issue: equity issue is not dealt with since there is bias in targeting the beneficiaries, clients are screened by insurance companies, other discrimination and powerlessness also exist, and the health system remains substantially unsubsidized. Fifth, the irreversibility issue: if the model fails, it would be difficult to reverse the situation due to the pressures created by the private players' lobby.

Desai (2009) argued that unnecessary hikes in expenditure on medicine, increasing rate of hysterectomies, and inequitable claim patterns are likely outcomes of the implementation of RSBY. A strengthened public health sector is needed to support the programme to reach its full capacity. However, Desai (2009) reached this conclusion after analyzing the case of Vimosewa, a micro-insurance programme started by the Self Employed Women's Association (SEWA). It was worth putting some effort to see what actually happens in case of RSBY.

Narayana (2010) showed that the coverage of BPL people under the RSBY was very low. Also, he pointed out that the government had to make some major investments on health infrastructure in poorer regions since private institutions might not exist in those regions.

Rajasekhar, Berg, Ghatak, Manjula, and Roy (2011) showed that in Karnataka, more than 80% of the eligible households were aware of the scheme. However, only 68% had been enrolled. Very few households received cards but they did not know how and where to obtain treatment under the scheme. Hospitals were not willing to

treat RSBY patients and were asking cardholders to pay cash due to lack of trained people and delays in the reimbursement.

Das and Leino (2011) showed that there was little evidence of cream skimming and that very little information could increase enrollment status even in states with poor supply administration. However, IEC did not have any impact on improving the enrollment status.

Selvaraj and Karan (2012) analyzed the impact of RSBY and Rajiv Arogyasri of Andhra Pradesh and Tamil Nadu. The study concluded that real per capita expenditure increased for in-patient care and RSBY, and other state government interventions actually failed. However, Dilip (2012) raised questions about the sample size and the fact that there might be increase in inpatient care consumption and consumption expenditure might have gone up due to the changes in the proportion of inpatient care consumption, which had not been taken into consideration. Selvaraj (2012) showed how the poorest group in the intervention district suffered the most compared to the non-intervention district.

Ghosh (2014) showed that the targeting approach of RSBY scheme was problematic. Moreover, a large section of the population was not aware of the programme. As a result, utilization of inpatient care had not improved. Also, inpatient care was associated with high out of pocket expenditure. Ghosh and Gupta (2017) argued that the scheme could not be successful with the dominance of private providers in the healthcare system. Johnson and Krishnaswamy (2012) also argued that the scheme did not have any impact on inpatient expenditure.

## Methodology

Jalpaiguri district was selected for field survey since it is the largest district of North Bengal, and it is primarily a rural district with more than 70% of the population living in rural areas. Multi stage sampling method was used to collect the primary data. In the first stage, the district was clustered into three groups, which were tea gardens, forest villages, and revenue villages. In the second stage, one tea garden was selected purposively on the basis of highest women workforce ratio and one forest village was selected similarly on the basis of highest women workforce ratio. Two revenue villages were selected for the study. One was a border village with the highest women workforce ratio, and the other village (with recorded high birth rate) was selected from a block and Gram Panchayat (within that block) with the highest RSBY enrollment ratio. The tea garden selected this way was Kurti Tea Garden; the forest village was Holapara; the revenue villages were Daikhata and Bengkandi. Households with at least one child below 2 years were surveyed in selected villages. About 96, 51, 19, and 85 households were surveyed in Kurti, Daikhata, Holapara, and Bengkandi, respectively in 2014, taking a reference period of 2 years. The total sample size was 251 households. Treatment effect for the section that is treated is estimated by sample average treatment effect on the treated (SATET).

$$SATET = E [v_1 | D = 1] - E [v_0 | D = 1]$$

Here,  $D = \{0\ 1\}$ , the treatment variable. Since the observation cannot be in two groups simultaneously, the propensity score matching is used to solve the problem of absenteeism of counterfactuals. The propensity score was defined by Rosenbaum and Rubin (1983). It estimates the conditional probability of getting a treatment given pre-treatment characteristics. It is defined as P(X) = P(D = 1|X) = E(D|X). With the propensity score, the average treatment effect on the treated (ATET) can be estimated as:

$$E\{ y_{1i} - y_{0i} | D_i = 1 \}$$

$$= E[E\{ y_{1i} - y_{0i} | D_i = 1, p(x_i) \}]$$

$$= E[E\{ y_{1i} | D_i = 1, p(x_i) \} - E\{ y_{0i} | D_i = 0, p(x_i) \} | D_i = 1 ]$$

Based on propensity scores, nearest - neighbour matching, radius matching, kernel matching, and stratification

matching are done and average treatment effect on treated is estimated. The nearest - neighbour matching set is estimated as:

$$C_i = \min_0 || p_i - p_i ||$$

Here,  $C_i$  is the control unit matched with treated units (i) with propensity score (p). Radius matching set is estimated as:

$$C_i = \{ p_i \mid || p_i - p_i || < r \}$$

Here, matching is done within a radius of r' with propensity score of control units. Kernel matching estimator is:

$$C_k = \sum_{i \in C} y_{0C} G(p_i - p_i) / h_n / \sum_{k \in C} G(p_k - p_i) / h_n$$

Here,  $h_n$  is the bandwidth parameter.

Stratification matching is computed by:

$$C_s = \sum_{q=1 \text{ to } q} C_{qs} \left( \sum_{i \in I(q)} D_i / \sum_i D_i \right)$$

Here, the treated group includes those who had enrolled in RSBY and had gone to empanelled hospitals for child birth,  $y_1$  is the outcome of the treated group, and  $y_0$  is the outcome of the control group. The balancing property of the model is satisfied.

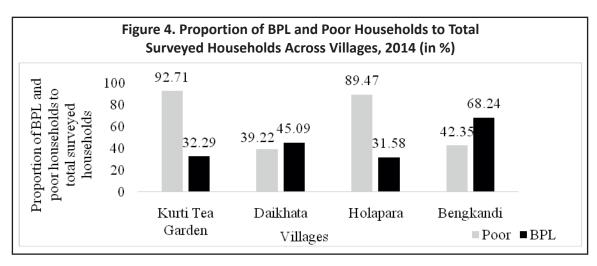
#### Pitfalls of RSBY

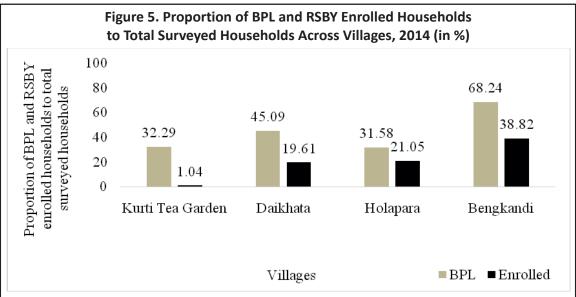
RSBY has failed to cover poor people under the scheme. The exclusion of needy women takes place at different stages of the scheme.

(1) Inefficient Targeting Approach: In Jalpaiguri district, BPL households have been targeted as beneficiaries, according to the Department of Labour's BPL list. These households were issued RSBY cards on registering themselves with ₹ 30 and were supposed to get benefits for any five household members' inpatient treatment. However, the targeting approach itself is problematic, as Swaminathan (2000) pointed out, noting the drawback of considering income as an indicator to estimate the poverty line. Firstly, income is not easy to calculate. Secondly, a large number of poor households that fall above the poverty line are equally vulnerable, but not targeted. In the study region, among the surveyed households, a fraction of the households with BPL cards were not poor [1] in terms of their asset holding and only a section of poor households were enlisted in the Department of Labour's BPL list (Figure 4).

In Kurti Tea Garden, almost 93% of the surveyed households were poor. However, only 32% of the surveyed households had BPL cards. Similarly, in Holapara Forest Village, 89% of the surveyed households were poor and only 31.5% of the surveyed households had BPL cards. In the revenue villages, Daikhata and Bengkandi, however, the opposite was the case. In Daikhata and Bengkandi, 39% and 42% of the surveyed households were poor, respectively. The corresponding figures of proportion of BPL households in those villages in the surveyed households were 45% and 68%. Therefore, a large section of poor households got excluded at this stage.

<sup>[1]</sup> According to Planning Commission of India (2014), the rural poverty line was ₹ 32.4 per capita per day for India as a whole. Considering that poverty line and a standard household size of 5 members, yearly expenditure at poverty line has been computed at ₹ 59,130 in 2011-12 prices. In the study villages, households with asset value below ₹ 59,130 were considered poor. For detailed discussion see: planningcommission.nic.in/reports/genrep/pov rep0707.pdf





(2) RSBY Enrolled Households: The next question is whether the scheme reached the targeted households or not, in other words, whether all BPL cardholder households had enrolled themselves for the scheme or not. Overall, only 48 households (40%) among 120 BPL households had registered themselves for the scheme. In Kurti, only 1% of the surveyed households had enrolled in the RSBY scheme. The corresponding figures for Daikhata, Holapara, and Bengkandi were 19.6%, 21%, and 38.8%, respectively (Figure 5). In all the four villages, very few of the BPL households had enrolled for RSBY. The percentages of enrolled households to BPL households were 3.22% in Kurti Tea Garden, 41.67% in Daikhata, 57.14% in Holapara Forest Village, and 56.89% in Bengkandi.

In addition to this, another observation is that 2.8% of the surveyed households, who had once enrolled themselves for the scheme, did not renew their enrollment since they were not aware of the fact they were supposed to renew their enrollment every year. As a result, those households were not insured for medical benefits during the survey period. As rightly pointed out by Islam (2013), the awareness levels in rural areas are less than the 'standard level'.

The main reason behind this low enrollment ratio is lack of awareness. Non-enrolled below poverty line households reported to have no information about the scheme. The local government failed to generate awareness

among the villagers, as a result of which a sizable proportion of eligible households was excluded. At the second stage, only a small fraction of households were entitled to the benefits.

(3) Distance of the Empanelled Hospitals from the Sample Villages: The roads and transportation conditions in and around the villages have already been discussed in the previous sections. With this backdrop, the distance to the health facility matters a lot. I have used the GIS system to roughly estimate the road distance of all the RSBY empanelled hospitals of Jalpaiguri district from these village points (Table 2).

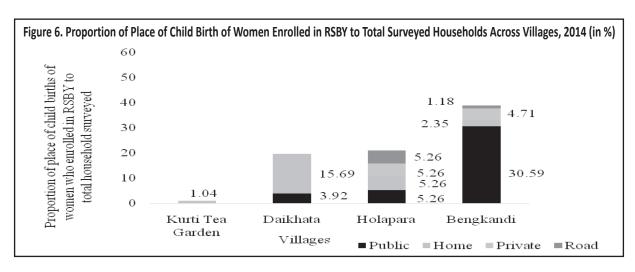
I did not consider eye hospitals in this case, since I am talking about reproductive and child health. Women have to cover at least 27 km to reach the closest empanelled hospital (private) in Kurti. Women from Daikhata go to the empanelled hospital of neighbouring district and travel 14.5 km to reach there (the nearest empanelled hospital of the district is 41.9 km away). The distance to the nearest empanelled hospital is 27.9 km from Holapara. There are three empanelled hospitals within the range of 12.5 km from Bengkandi, two private and one public. So, compared to other villages, Bengkandi is in an advantageous position.

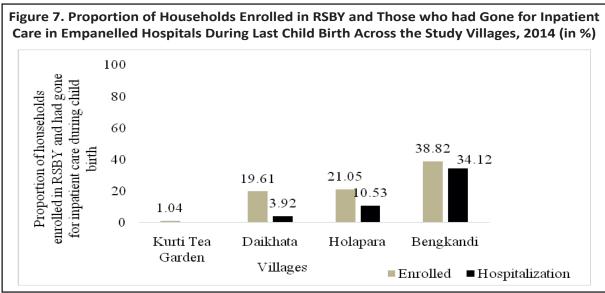
Now, given the proximity to the nearest empanelled hospitals from the villages, it is worthwhile to check whether there existed all-weather motorable approach roads or not. The conditions of roads from the villages are not good and not always safe. In Kurti, women's movement gets restricted during the monsoon. They cannot go to health facilities due to waterlogging. Also, they did not receive transportation facilities. Moreover, it is not safe to walk by the gardens alone since leopards attack people very frequently. In Daikhata, there is only one bridge which connects the village with the rest of the country. The bridge connecting the village with the outer world is broken since 3 years from the survey period. Therefore, no public transportation facility is available there. Holapara is a forest village. Roads from Holapara are closed during the monsoon since hilly rivers surrounding Holapara become alive during that time, and it becomes impossible to reach the hospitals. Only Bengkandi is in an advantageous position since the National Highway (NH-31) splits the village into two halves. Thus, transportation facilities are better in that village. Thus, none of the villages, except for Bengkandi, had all-weather motorable approach roads. Transportation is not available round the year in Kurti and Holapara in the absence of all-weather motorable approach roads. In Daikhata, no transportation is available within 5 kilometers from the periphery of the village.

Table 2. Distance of the Empanelled Hospitals from the Study Villages (in Km)

Villages/ Empanelled Hospitals	Kurti	Daikhata	Holapara	Bengkandi
Alipurduar Sub-Divisional Hospital (Public)	102	139	46.4	51.9
Birpara State General Hospital (Public)	43.9	107	28.2	12.2
Dhupguri Rural Hospital (Public)	49.2	81.9	53.4	25.4
District Hospital (Public)	63.4	41.9	87.4	62.3
Dooars Nursing Home (Private)	44.1	107	28.3	12.4
JeebanDeep Nursing Home (Public)	49.2	81.9	53.4	25.4
JeevanSurakshaNursing Home (Private)	43.7	107	27.9	12
Malbazar Sub-Divisional Hospital (Public)	27.4	99.6	82.8	66.9
Maynaguri Rural Hospital (Public)	56.1	60.3	71.4	46.3
Medicare Nursing Home (Private)	27.7	92.7	83.1	67.2
New RamkrishnaSevaSadan (Private)	80.5	81.1	129	104
Rajganj Rural Hospital (Public)	73.8	67	115	89.5
Touch Nursing Home (Private)	62.3	42.2	86.3	61.2

Source: Road distance was measured using the GIS system





- (4) Place of Child Birth of RSBY Enrolled Women: A section of women, who were enrolled in the RSBY scheme, did not go for institutional deliveries for their last child birth. The proportions of (RSBY) enrolled women who chose institutional deliveries to the total households surveyed were 3.92%, 10.52%, and 35.28%, respectively in Daikhata, Holapara, and Bengkandi (Figure 6). Lack of awareness and accessibility constraints prevented women from availing the services of health institutions (both public and private) during child birth.
- (5) RSBY Enrolled Women Giving Birth at Empanelled Hospitals: Moreover, a fraction of women who were enrolled did not go to the empanelled hospitals or institutions for child birth. In Daikhata, all 3.9% surveyed women who were enrolled in RSBY went to the empanelled hospitals. The corresponding figures for Holapara and Bengkandi villages are 10.5% and 34.1%, respectively (Figure 7). Villagers were not completely aware of the scheme.

In Daikhata, all the enrolled women who had gone to empanelled hospitals chose public health facilities for child birth. In Holapara, among two beneficiaries who had gone to empanelled hospitals, one chose public services and the other chose private services. In Bengkandi, among 29 beneficiaries who went in for institutional

deliveries, 26 (89.65%) went to public health facilities and 3 women (10.34%) chose private health institutions.

At this stage, accessibility constraints restricted women's movement, thereby excluding them from the benefits of RSBY. Until and unless these constraints are removed by the active role of the state, equity in terms of distribution of health care resources cannot be achieved.

At the fourth stage, another kind of exclusion was taking place. Private providers engaged in 'cream skimming'. They refused to provide services to poor women. One mother reported that she and her family knew about the RSBY. They were enrolled with the scheme and had gone to a private hospital, empanelled to RSBY, for delivery. However, the hospital authorities did not admit her after checking her financial status; she belonged to a poor family and could not afford to make payment. The mother had a RSBY card. However, the hospital authorities said that they usually do not receive full payment but only a fraction of it from the insurance companies. Moreover, the disbursement usually gets delayed. As a result, the pregnant woman was denied admission in the said hospital. She was brought back and gave birth at home after a day.

Now let us consider the expenses incurred by the beneficiaries at empanelled hospitals. The Table 3 summarizes the treatment variable.

Propensity score model finds that employed mothers and illiterate mothers were less likely to enroll themselves for the scheme (Table 4). The balancing property of the model is satisfied.

Bootstrapping method was followed since the sample size was small. After matching the expected probability (propensity score) of treated and control groups, the difference between the out of pocket expenditure of treated groups and control groups is positive, which means that for those who had enrolled themselves in the scheme, spent more on healthcare during delivery. For nearest neighbour matching, kernel matching, and stratification matching, the differences are not statistically significant. Radius matching shows significant results at the 10% significance level (Table 5).

**Table 3. Treatment Variable** 

Treatment Variable	Frequency	%	
0	143	81.25	
1	33	18.75	
Total	176	100	

Note: Only poor households and households using RSBY scheme have been considered.

**Table 4. Propensity Score Logit Model** 

Variables	Coeff.	Std. Error
Mother's education <sup>1</sup>	0.95*	0.52
Father's education <sup>1</sup>	-0.49	0.58
Mother's occupation <sup>2</sup>	-2.02**	0.58

1 = > BC: illiterate; 2 => BC: not employed in paid activities.

Table 5. Average Treatment Effect on the Treated

Estimation method	No. of Treated	No. of Control	ATET or ATT	t - Statistics
Nearest neighbor matching	33	104	2461.93	1.60
Radius matching	33	112	3059.98*	1.75
Kernel matching	33	112	2222.99	1.2
Stratification matching	33	112	2550.42*	1.68

<sup>\* =&</sup>gt; significant at 10% significance level.

<sup>\* =&</sup>gt; significant at 10% level; \*\* => significant at 5% level.

- (i) Nearest Neighbour Matching: In the nearest neighbour matching method, 33 treated observations are matched with 104 nearest neighbours with similar mother's occupation, mother's education, and father's educational qualification. After matching the expected probability (propensity score) of treated and control groups, the difference between the out of pocket expenditure of treated groups and control groups is ₹ 2461.93/-, which means that for those who had enrolled themselves in the scheme, their OOP expenditure on inpatient care during delivery increased by ₹ 2461.93/-, although statistically insignificant.
- (ii) Radius Matching: In the radius matching method, 33 treated variables are matched with 112 observations in the radius of 0.5 with similar mother's occupation, mother's education, and father's educational qualification. After matching the propensity score of treated and control groups, the difference between the outcome of treated groups and control groups is 3059.98, which means that for those who had enrolled themselves for the scheme, their OOP expenditure on inpatient care during delivery increased by ₹3059.98/- at the 10% significance level.
- (iii) Kernel Matching: In the kernel matching method, 33 treated variables are matched with 112 observations. After matching the propensity score of treated and control groups, the difference between the outcome of treated groups and control groups is 2222.99, which means that for those who had enrolled themselves for the scheme, their OOP expenditure on inpatient care during delivery increased by ₹ 2222.99/-, although statistically insignificant.
- (iv) Stratification Matching: In the stratification matching method, 33 treated variables are matched with 112 observations. After matching the propensity score of treated and control groups, the difference between the outcome of treated groups and control groups is 2550.42, which means that those who had enrolled themselves for the scheme, their OOP expenditure on inpatient care during delivery increased by ₹ 2550.42/-, although statistically insignificant.

#### Conclusion

The RSBY scheme is not found to be efficient in terms targeting beneficiaries, achieving equity, reducing the cost of care, and improving institutional deliveries. Rural women, from remote areas, found it hard to reach the health care facilities. The situation in some cases was even worse for women who managed to overcome these barriers and reach health facilities for availing services and were sent back just because the providers felt that they did not have the ability to pay for the services.

# **Research and Policy Implications**

The study recommends more public expenditure on health, which can be used for infrastructure development. With infrastructure development, patients will not have to travel long distances to reach empanelled hospitals. The scheme should target universal coverage. Awareness building campaigns can be undertaken. Condition of roads and transportation system should be improved. Private partners should be closely monitored and regulated.

# **Limitations of the Study and Scope for Further Research**

The study would have been more comprehensive if the size of the sample was higher. The study focused on maternal health - related issues only. Other health problems can also be taken into consideration to analyze the effectiveness of RSBY. Such studies in urban settlement can be carried out for further research. Also, inter-state comparisons can provide comparative pictures in terms of the effectiveness of the scheme and its constraints.

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#### References

- Berman, P., Ahuja, R., & Bhandari, L. (2013). The impoverishing effect of healthcare payments in India: New methodology and findings. *Economic and Political Weekly*, 45(16), 65 - 71.
- Das, J., & Leino, J. (2011). Evaluating the RSBY: Lessons from an experimental information campaign. *Economic* and Political Weekly, 46 (32), 85 - 93.
- Desai, S. (2009). Keeping the 'health' in health insurance. Economic and Political Weekly, 44 (38), 18 31.
- Dilip, T. R. (2012). On publicly-financed health insurance schemes: Is the analysis premature? Economic and Political Weekly, 47(18), 79 - 80.
- Drèze, J., & Sen, A. (2013). An uncertain glory: India and its contradictions. NJ: Princeton University Press.
- Ghosh, S. (2014). Publicly-financed health insurance for the poor: Understanding RSBY in Maharashtra. *Economic* & Political Weekly, 49(43 - 44), 93 - 99.
- Ghosh, S., & Gupta, N. D. (2017). Targeting and effects of Rashtriya Swasthya Bima Yojana on access to care and financial protection. *Economic & Political Weekly*, 52 (4), 61-70.
- Islam, A. M. (2013). Awareness regarding government primary healthcare services and their utilization status among women: A case study in Kushtia Sadar Upazila, Bangladesh. Arthshastra Indian Journal of Economics and Research, 2(6), 24 - 30. doi:10.17010/aijer/2013/v2i6/54537
- Johnson, D., & Krishnaswamy, K. (2012). The impact of RSBY on hospital utilization and out-of-pocket health Retrieved expenditure. fromhttps://openknowledge.worldbank.org/bitstream/handle/10986/22820/The0impact0of00t0health0ex penditure.pdf?sequence=1&isAllowed=y
- Kumar, J., & Bhatia, H. (2014). A review of the rural health care system in Gujarat. Arthshastra Indian Journal of Economics & Research, 3 (6), 20 - 31. doi:10.17010/aijer/2014/v3i6/56011
- Narayana, D. (2010). Review of the Rashtriya Swasthya Bima Yojana. *Economic and Political Weekly*, 45(29), 13-18.
- National Sample Survey Office, Ministry of Statistics and Programme Implementation. (2014). Household consumption of various goods and services in India 2011-12. Report No 558. Retrieved from http://www.mospi.gov.in/sites/default/files/publication reports/Report no558 rou68 30june14.pdf
- Rajasekhar, D., Berg, E., Ghatak, M., Manjula, R., & Roy, S. (2011). Implementing health insurance: The rollout of Rashtriya Swasthya Bima Yojana in Karnataka. Economic and Political Weekly, 46 (20), 56 - 63.
- Rosenbaum, P. R., & Rubin, D. B. (1983). The central role of the propensity score in observational studies for causal effects. *Biometrika*, 70(1), 41-55.

- Selvaraj, S. (2012). Publicly-financed health insurance schemes: Ignorance is not bliss. Economic and Political Weekly, 47 (29), 109 - 111.
- Selvaraj, S., & Karan, A. K. (2012). Publicly-financed health insurance schemes: A response. *Economic and Political* Weekly, 47(11), 125-126.
- Swaminathan, M. (2000). Weakening welfare: The public distribution of food in India. New Delhi: Left Word Press.
- World Health Organization. (n.d.). Global health expenditure database. Retrieved from http://apps.who.int/gho/data/view.main.HEALTHEXPRATIOIND?lang=en

#### **About the Author**

Mampi Bose has done Ph.D. in Economics from Centre for Economic Studies and Planning (CESP), Jawaharlal Nehru University, New Delhi. She is currently working as a Policy Analyst at the Centre for Budget and Governance Accountability (CBGA), New Delhi.