Article

Challenges in the Sustainability of a Targeted Health Care Initiative in India

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Abstract

In this article, we raise sustainability issues in a targeted health initiative, namely the Rashtriya Swasthya Bima Yojana. This unique health insurance initiative targets the poor population to address the iniquity in healthcare in the Indian societal context. We analyze this initiative because it is a unique case of a public–private partnership in the development sector arena in India being used as an instrument for improving the health care system on a large scale. The initial success stories from this initiative include improved hospitalization rates for the targeted population, a reduction in their out-of-pocket health care spending, and a reasonable incentive encouraging the participation of insurance companies. The sustainability of this initiative, however, is threatened mainly by a lack of information, heterogeneity in access, institutional shortcomings and the long-run escalation of costs. While the government is employing a public–private partnership to implement this initiative, there is need to simultaneously use this model to augment the existing health infrastructure to make this initiative sustainable and effective.

Keywords

Health care, health insurance, public–private partnership, Rashtriya Swasthya Bima Yojana, India

Introduction

Starting in the early-1990s, the economic liberalization occurring in India has brought cardinal changes to our thinking regarding the underprivileged segments of society—be it education, health, food security or the generation of employment for social security. On the one hand, economic liberalization has created immense economic opportunities, particularly in the urban conglomerations. These opportunities derive from India's impressive 7–8 per cent growth rate in the gross domestic product (GDP) during the last decade. On the other hand, concerns remain regarding inclusive growth which is also relevant to the underprivileged segments of society. These concerns for inclusion are of paramount importance in the present political scenario, with the experience of rising dissident groups in the hinterlands catalyzed by a lack of development (Guha, 2007; Sarkar & Sarkar, 2009). There is, at present, an unprecedented focus on the large-scale replication of development programmes in various arenas with manifold objectives and targeted interventions, such as the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), the Mid-Day School Meal Scheme, the National Rural Health Mission, the Rajiv Gandhi National Drinking Water Mission, and the Self Help Group–Bank Linkage Program. The policy approach of these programmes is to create the right kind of transparent institutions at various levels with an eye to improving the

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governance so that these programmes, as well as India's economic growth, can be sustained in the long term. In this article, we explore the sustainability issues of one programme that has been undertaken, namely the Rashtriya Swasthya Bima Yojana (RSBY). This is a programme launched by the Ministry of Labour and Employment, Government of India to provide health insurance to families below the poverty line (BPL).

The Constitution of India, under Article 47, assigns the State to '…regard the raising of the level of nutrition and the standard of living of its people and the improvement of public health as among its primary duties…'. However, the state of affairs in the public health arena regarding the poor segments of society indicates that there is a general sense of insecurity related to the absence of effective health services and assured health coverage. To be precise, 'there is persistence of extreme inequality and disparity both in terms of access to care as well as health outcomes' in India (Planning Commission, 2008, p. 60). In fact, the poor spend a considerable amount of money on health care, and this often means severe financial crisis for them (Rajasekhar et al., 2011; Yip & Mahal, 2008). It is estimated that one-quarter of all Indians fall into poverty as a direct result of medical expenses in the event of a hospitalization (Peters et al., 2002), which is supported by the fact that private expenditures account for 80.4 per cent of total health spending in India (WHO, 2006). The rapidly rising cost of health care is one major reason for the increase in health spending during the past two decades (Yip & Mahal, 2008). This increase in costs, combined with the loss of working days and wages, imposes a substantial economic burden on the poor that not only results in reduced family spending on education and skill development, but also traps families in the vicious cycle of poverty. In fact, after accounting for the out-of-pocket payments to finance healthcare, the extent of poverty increased from the official estimate of 31.1 per cent to 34.8 per cent in India (van Doorslaer et al., 2006). In view of the above facts, the Eleventh Five Year Plan (2007–2012) espouses facilitating the '…convergence and development of public health systems and services that are responsive to health needs and aspirations of people [while giving importance] to reducing disparities in health across regions and communities by ensuring access to affordable health care' (Planning Commission, 2008, p. 58).

It is in this context that the Government of India announced the creation of the Rashtriya Swasthya Bima Yojana in April 2008 to provide health insurance coverage to BPL families. Under this initiative, a beneficiary family is entitled to hospitalization coverage of up to 30,000 Indian Rupees (INR) (around 667 USD) per annum for treatment in empanelled hospitals across India. This family coverage is limited to five members at most.[1] Though pre-existing conditions are covered from day one, and there is no age limit, outpatient care and other non-critical treatments are excluded from the scope of this programme (RSBY, 2011a).[2] In the first stage of the implementation, a health insurer is chosen from among the possible contenders, which consist of public and private sector insurance companies licensed by Insurance Regulatory Development Authority (IRDA) at the state level; this selection is made by the corresponding state government through an open bidding process. Next, the hospitals are empanelled by the state-selected insurance companies based on prescribed criteria. Currently, four public sector and six private sector insurance companies are implementing the initiative.

There are some features of the RSBY which potentially make it an excellent health insurance scheme (Palacios, 2010). A beneficiary does not require any cash payment at the point of access because the hospital is directly reimbursed by the insurer. This discourages the leakage of funds through corrupt channels, which is a prime concern for policy-makers regarding grassroots developmental projects. The expenditure for the insurance premium[3] of 750 INR per family is jointly incurred by the Government of India (generally 75 per cent) and the corresponding state government (generally 25 per cent). Moreover, illiterate and semi-literate beneficiaries can conveniently access this scheme through biometric smart cards without completing any paperwork. This lowers the transaction cost, particularly for these disadvantaged sections of society. Because the smart card is portable, the beneficiary can seek care in any public or private empanelled hospital across India. This helps in an economic environment such as the post-economic reform era in India, in which low-income households or poor migrants move into urban areas in search of jobs (Mitra, 2006), and new employment patterns expose labourers to vulnerable situations (Vijay, 2005). A beneficiary is required to pay the nominal amount of 30 INR as a registration fee to acquire the smart card; the objective of this fee is to increase the beneficiary's sense of ownership and awareness of the initiative.

Because this programme is scaling up in its operations, with the ultimate goal of insuring all BPL families in India, the most pertinent question concerns whether the RSBY's ability to ensure minimal health coverage for all can be sustained. The sustainability issues draw their relevance from the weak and fragmented state of affairs in the medical insurance sector in India (Kumar et al., 2011). It may be

emphasised here that the RSBY initiative implemented in 2008 is a new avatar of the Universal Health Insurance Scheme of 2003, which, despite various modifications, could hardly evince any interest from health insurance companies (Narayana, 2010). Furthermore, the RSBY is a unique case of a public–private partnership (PPP) in the development sector arena being used as an instrument for improving the health care system. Policy makers are increasingly realizing that universal health coverage in India cannot be achieved by either the public or the private sector alone. Thus, the objective of the RSBY is to ensure universal access to affordable and quality health care to meet the broader goals set under the National Health Policy and the Millennium Development Goals (Planning Commission, 2008). Even though there are a number of good examples of localized and small- to medium-scale PPP in the health sector,[4] the RSBY is emerging as a unique case of a PPP being implemented on a large scale; sustaining the RSBY, therefore, will be challenging in the long run. The challenge is increased by the fact that the regulatory and institutional mechanisms for promoting accountability are weak in both the public and the private sectors (Bhate-Deosthali et al., 2011). The above concern necessitates the examination of the existing and the impending challenges that can be inferred from the initial experiences of the RSBY. The rest of the article is organized as follows. The second section provides an analysis of the RSBY based on its initial experiences, as reflected in the organizational records and literature along with our critical evaluation. This section also draws from personal interviews with various stakeholders, including officials of the National Rural Health Mission and third party administrators, experienced physicians and RSBY implementation officers in hospitals. The third section highlights the pertinent sustainability issues of this unique health insurance initiative, both in the short term and in the long term. We provide suggestions on how to overcome these drawbacks whenever possible. The article ends with concluding remarks.

Initial Experiences

The RSBY began in 2008, and since this time, the initiative has been rolled out in an increasing number of districts. As of June 2011, 247 districts have completed one year under the RSBY, and 69 districts have completed two years. As of September, 2011, the enrolment for the RSBY is complete in 240 districts, with 24.51 million BPL families covered, constituting 46.4 per cent of the total BPL families identified in these districts (http://www.rsby.gov.in/, website of the RSBY). Moreover, at least 150,000 non-BPL families have voluntarily opted for this scheme (Swarup, 2011a). Currently 8,686 hospitals (Private—6,148 and Public—2,538) comprise the RSBY delivery network. The ultimate goal of this programme is to eventually include the entire BPL population.

This programme is widely considered to be a relatively successful government-funded social security scheme in India (Jain, 2010; *The Economic Times*, 2011). The United Nations Development Program (UNDP), the International Labour Organisation (ILO) and international forums such as the Group of Twenty (G-20) Finance Ministers and the Central Bank Governors have recognized and appreciated the RSBY as one of the most innovative social security schemes in the world (Swarup, 2011a; *The Economic Times*, 2011). Countries such as Nigeria, the Maldives and Bangladesh have evinced keen interest in implementing the RSBY back home (*The Economic Times*, 2011). Recently, two private trusts—one of which provides finance to poor families—were given approval by the government to enrol their nearly 250,000 beneficiaries under the RSBY by paying their premiums (Sen, 2011). This newspaper report highlights that the RSBY can be a successful business model: one of the participating private insurance companies in the RSBY has, in fact, made a profit from this initiative. Additionally, the average premium for RSBY was found to be approximately 560 INR, far below the government mandated limit of 750 INR (Palacios, 2010). These measures are indicative of the efficiency in the implementation of the initiative during these initial years.

Concerning the societal perspective, the growing popularity of the RSBY is commendable. We cite two experiences. First, the politically troubled states of Jharkhand and Nagaland received national honours for motivating and enrolling the maximum number of women and for working in difficult terrain (*The Telegraph*, 2011). Second, the biometric smart cards issued under the RSBY are being used to identify public distribution system (PDS) beneficiaries; thereby this initiative is empowering beneficiaries to buy subsidized food grains in the lesser developed state of Orissa (Dhoot, 2011; Menon, 2011). Aside from the health care perspective, these cases illustrate increasing trust in this health care initiative.

It is also encouraging that policy makers have been quick to extend the RSBY to other underprivileged sections of the society, such as street vendors, *beedi* workers

and domestic workers.[5] The government has also decided to extend the RSBY to MGNREGS workers that have worked for more than 15 days during the previous year and also to auto-rickshaw drivers, taxi drivers, rag pickers, building and other construction workers, railway porters, postmen and sanitation workers in the unorganized sector. As per the new government guidelines, street vendors, *beedi* workers and domestic workers and their families will be formally identified using the existing urban and rural institutions to bring these groups under the umbrella of the RSBY. It is within the purview of this initiative to steadily expand the RSBY to provide health care to workers in the unorganized sector—who constitute 93 per cent of the total work force in India (National Commission for Enterprises in the Unorganized Sector, 2009)—and their family members. This process of bringing those working in the unorganized sector into the fold of the RSBY is a tedious process for logistical reasons. For example, to identify domestic workers, a state government uses two out of four criteria—certificate by the registered Resident Welfare Association, employer certificate, certificate from a registered trade union or police verification certificate. Though this process is time-consuming, the government does find this information valuable for other development interventions. Additionally, the process of bringing those working in the unorganized sector into the fold of the RSBY implicitly gives recognition to their sources of livelihood.

Despite the promising beginning, there are still growing pains in the implementation of the RSBY. First and foremost, the problem of information or lack thereof, is a frequent issue with public programmes in India (Bhatia & Dreze, 1998). The enrolment of the BPL families varies widely across districts (http://www.rsby.gov.in/). For example, against an average conversion ratio—defined as a proportion of the actual enrolment of BPL families to the total number of BPL families—of 54.43 per cent across India, the Jorhat district in Assam has the lowest conversion at 11.11 per cent, whereas on the other extreme, the Kozhikode district in Kerala has a 91.83 per cent conversion rate (Swarup, 2011a). A higher conversion ratio—as in the case of Kerala—is thought to be due to greater involvement on the part of the local administration. Rajasekhar et al. (2011), who conducted a survey of 3,647 RSBY-eligible families across 222 villages in the state of Karnataka, endorses this view. Rajasekhar et al., also interviewed key personnel from 39 RSBY-empanelled hospitals in the state. While an impressive number of 85 per cent have heard of RSBY, among those who are eligible for the scheme, only a mere 42 per cent of them actually possess the card. Non-registration is significantly attributed to the lack of prior information on procedural details, which may in turn be due to lapses in the local administration. The informational lapses related to this insurance initiative have yet another interesting impact. Das and Leino (2011) conducted a random trial on the implications of an informational and educational campaign in Delhi. This study reports that the informational and educational campaign mitigated the risk-pooling of the self-selected families. In other words, in the absence of an informational and educational campaign, the enrolled households are adversely selected; they enrol because they are confronting an immediate occurrence of a major health issue.

Second, the hospitalization ratio—the percentage of enrolled persons who have been hospitalized—is 2.55 per cent under the RSBY as compared to the national average of 1.70 per cent (National Sample Survey Data (NSSO)—60th round 2007) for the poorest 40 per cent in India (Swarup, 2011a). A comparison of the expenditure data from the National Sample Survey Organisation (NSSO) and the RSBY surveys shows that non-members spend six times more (3,000 INR) than the holders of RSBY smart cards (500 INR) for hospital visits, indicating that this insurance initiative has succeeded in reducing out-of-pocket health expenditures (Basu 2010). However, this success needs to be put in a proper perspective. In India, public spending on health is less than 20 per cent of the total expenditure on health, and 80.4 per cent is private spending (WHO, 2006). In addition, about 74 per cent of the private spending on health is for outpatient care, and only 26 per cent is spent on hospitalization (Kumar et al., 2011). The RSBY does not reimburse outpatient treatment costs. It only covers hospitalization costs, and these are subject to an upper limit for a family. Therefore, the major portion of the out-of-pocket expenditure is still borne by the patient despite their enrolment in the RSBY programme. It would be prudent to say that the RSBY is a well-designed scheme for major ailments but that it does not manage outpatient care, which, in fact, constitutes a large portion of each family's out-of-pocket spending on health care.

The broader picture, though, suggests a commendable improvement due to RSBY in the accessibility of medical care for low-income groups. We, here, highlight the relevant points from a recent report (RSBY, 2011b). For the 247 districts that have completed one year under the RSBY, the hospitalization ratio was 2.28 per cent. However, for the 69 districts that have completed two years, this figure shot up to 5.00 per cent. In comparison, the NSSO data

show a hospitalization ratio of 1.70 per cent for the poor. There are also wide variations in the hospitalization rates at the state level. Looking at the districts that have completed one year, the lowest ratio is for Himachal Pradesh (0.49 per cent) and Punjab (0.82 per cent) at the one extreme, and the highest ratio is for Uttar Pradesh (4.80 per cent) and Kerala (5.21 per cent) at the other. One disquieting trend is how hospitalization has shot up in the districts that have completed two years. In Kerala, it shot up from 5.21 per cent to 6.59 per cent, and in the case of Uttar Pradesh, it went up from 4.80 per cent to 9.05 per cent. These skyrocketing rates have important implications, as this high utilization is likely to drive up premiums. In Kerala, for example, the premium for the third year of RSBY has shot up to 825 INR, crossing the limit of 750 INR that the government stipulated when the initiative was developed.

On the other hand, Hou and Palacios (2010) reported widespread intra-district variation in the utilization of available medical services under the RSBY. Hou and Palacios found that 62 per cent of the villages had no utilization at all during the entire policy period, whereas utilization averaged around 11 per cent for the remaining 38 per cent of the villages. In Karnataka, Rajasekhar et al. (2011) discovered that only 0.4 per cent of enrolled (sample) households utilized the smart card to obtain treatment after six months of enrolment. Swarup (2011a) discusses the variation in the average burn-out ratio—the outgo from the insurance company as a percentage of the total premium received—and reveals that even though the average is somewhere around 80 per cent at the individual district level, it ranged from 30 per cent, at one extreme, to 375 per cent at the other extreme. Furthermore, one-fifth of all of the participating districts had a ratio of over 100 per cent, indicating excessive utilization of the medical facilities. Swarup (2011b) further shows that, due to low utilization in two districts in the state of Punjab, the premiums in the second year actually came down from 562 INR in the first year to 447 INR in the second year. However, because of higher utilization, the premiums went up from 546 INR to 657 INR in three districts of the state of Haryana and from 542 INR to 663 INR in Delhi.

There are also concerns regarding inadequacies on the supply side of RSBY. Among the 39 empanelled hospitals in Karnataka, nine did not admit any patients, and a majority of hospitals—22 in number—admitted less than 10 patients (Rajasekhar et al., 2011). This study connects these statistical facts with inputs from various hospital officials, who insinuate that there are grievous failures on the part of the RSBY. The reimbursements to the hospitals from the insurance companies are often extensively delayed, arbitrarily reduced and subjected to non-contracted caps (Palacios, 2010; Rajasekhar et al., 2011). These are flaws at the core of this initiative. While the RSBY is targeted to encourage private investment, in practice these flaws discourage private hospitals from enrolling. Other glitches in this initiative are inadequate training for the hospitals on how to use smart card-reading technology and the omission of many common diseases in the list of the diseases covered (Aravindan, 2011a). An experienced physician associated with the initiative feels that the management information system used for RSBY is too rigid, without any leeway for entering complicated situations or special cases into the system (Aravindan, 2011a).

There are significant gender imbalances in enrolment for this insurance initiative as per one recent report of the RSBY (RSBY, 2011b). Here we summarize the relevant points from this report. For the 247 districts which have completed one year, 163 males were enrolled for every 100 females. However, when we look at the 69 districts that have completed two years under the scheme, there is an improvement. For these districts, whereas the male enrolment grew by 13 per cent in the second year, the female enrolment grew by 31 per cent, thus narrowing the imbalance. This improvement, however, has not occurred uniformly across states. In Kerala, the male–female ratio improved to 115 in the second year from 149 in the first year, but in Uttar Pradesh, it declined only marginally from 178 to 177 and, in Uttarakhand, it actually increased from 74 to 174 in the first year. Although fewer females are enrolled in the RSBY, their utilization marginally exceeds the average utilization. For the 247 districts that have completed one year, the overall hospitalization ratio was 2.28 per cent, whereas the ratio for women was 2.38 per cent. This trend reverses when we compare the data for the 69 districts that have completed two years. As compared to an overall hospitalization ratio of 5 per cent, that for women was 4.68 per cent.

The above analysis is a piece of evidence showing the prevailing gender bias in Indian society. The health of a man is given primary importance in the family, neglecting the women (Patra, 2008). This discrepancy in enrolment indicates that the quota of five in a family for enrolment in the RSBY is filled by giving undue preference to men. The discrepancy in the hospitalization rate can be construed as evidence for the theory that women are probably enrolled when they require serious health attention. This theory would explain why the hospitalization ratio of the women enrolled is considerably higher when compared to that of the men.

To summarize, the initial experiences show that the RSBY—despite giving the general impression of being a successful venture—has manifold areas that demonstrate inefficiencies, as shown by the examples cited above. Most significantly, an investigation into the RSBY experience for the first two years based on data from nine districts reports increases in enrolment rates (56 per cent), hospitalization ratios (these increased dramatically from 1.74 per cent in the first year to 3.57 per cent in the second year) and the burn-out ratio (from 72.87 per cent to 84.04 per cent) (Swarup, 2011b). These increases suggest that it is pertinent to question the sustainability of this programme. Higher enrolment and higher awareness result in a higher burn-out ratio; whereas a paper-based scheme without active societal participation implies a lower burn-out ratio. Therefore, a plausible scenario is that some districts are gaining disproportionately from the RSBY at the expense of under-utilization in the comparatively backward districts. In the near future, higher awareness regarding the RSBY would drive the average burn-out ratio to over 100 per cent, creating serious fiscal concern for the government. We next elaborate various concerns regarding sustainability.

The Sustainability of the Rashtriya Swasthya Bima Yojana initiative

Based on initial experiences and the literature, we identify five prominent issues in the sustainability of the RSBY—in the short term and in the long term—and offer mechanisms that can provide corrective measures, wherever applicable.

Institutional Problems

Evidence suggests that there are incidents when the empanelled hospitals do not comply with the terms of RSBY and force patients to incur out-of-pocket spending, particularly for medicines and transportation (Palacios, 2010; Rajasekhar et al., 2011). Palacios (2010) cites surveys on patients in the states of Delhi, Kerala and Gujarat, which have revealed that a significant proportion—between one-fifth and one-third of all RSBY patients—paid for medicines. These surveys also show that no transportation allowance was paid to a majority of the patients. These findings should be put into proper perspective by the fact that about 72 per cent of all private spending on health care for this population is on medicines (NSSO, 2007). The benefits of the RSBY are far lower if patients are paying for medicines themselves. The same argument could be extended in the case of transportation expenses. Around 36 per cent of the beneficiary families in the state of Kerala had to travel over 10 km to access a hospital empanelled by the RSBY, with substantial transportation expenses ranging from 50 INR to 500 INR (RCSS, 2009). To some extent, the non-compliance of hospitals regarding adherence to the RSBY norms can be linked to the package prices fixed under this scheme by the Government of India. For many of the procedures, the prices may be insufficient to cover costs, particularly if complications arise (Aravindan, 2011a; Rajasekhar et al., 2011). State governments have discretion over these prices but, unfortunately, most have not adjusted the prices to reflect the local conditions (Aravindan, 2011a).

There is also a widespread lack of compliance with the rules regarding enrolment (Palacios, 2010). For example, the requirement that smart cards must be issued at the time of enrolment is often not followed. Instead, they are printed and activated in a central location and subsequently distributed, sometimes weeks later and occasionally not at all. Field reports suggest that the intermediaries responsible for distributing the cards are demanding extra payments from the beneficiary families (Rajasekhar et al., 2011). These institutional problems cause families to forego enrolling for the RSBY. The low conversion ratio is also attributed to the defective and out-dated BPL lists (Swarup, 2011a). These institutional problems confronting the RSBY need timely policy interventions before its operations are scaled up further.

Aside from the above institutional problems, it appears that the government—rather than taking on the responsibility to supply health services, which essentially falls in the category of public good—is inclined to outsource health services to the private sector under the auspices of the PPP model. There are potential benefits associated with this approach. However, we could learn from the Conditional Cash Transfers (CCTs) that are targeted at the poor, for example, Brazil's Bolsa Família (Soares, 2011) and Mexico's Oportunidades (Yanes, 2011). In these two cases, the respective governments have added CCTs to the pre-existing public delivery systems in health and other sectors (Ghosh, 2011). In the same vein, we can add that the RSBY should not and could not replace the scope of government in providing the essential health infrastructure, particularly in the context of a developing country. If the government believes that a mere allocation of money suffices in delivering a public good, this strategy contradicts the very

notion of a public good itself. The government should erect the required infrastructure to cater to the demand for health services.

Under-Utilization

Utilization under the RSBY is likely to increase in the short term, leading to an escalation of costs. There could be multiple reasons for inter- and intra-district variation in utilization. First, if under-utilization in a particular village is attributed to a lack of medical facilities accessible to that village, the initiative is not augmenting public welfare in the first place. Ideally, a medical insurance scheme—either under a private or the public domain—should complement an already existing medical infrastructure. Second, although a general lack of awareness persists about the operation of the initiative, anecdotal evidence suggests that once an RSBY beneficiary in a village is hospitalized, other beneficiaries living in the same village soon follow (Hou & Palacios, 2010). Moreover, the utilization rate is positively related to the literacy rate in a district and to the occurrence of health camps at the village level (Hou & Palacios, 2010). With the increase in awareness, it is expected that the utilization would increase, leading to a severe escalation of payments from the insurance providers to the empanelled hospitals, at least in the short run.

This brings us to the primary question regarding the sustainability of the initiative: Is it possible to provide 30,000 INR coverage to families for a premium of 750 INR? In the state of Kerala, for example, the premium set by an insurance company was around 480 INR in the first year of implementation, but a high claim ratio of around 150 per cent prompted the insurer to bid for 748 INR in the second year (Aravindan, 2011b). In the third year, the premium has ratcheted up to 825 INR in Kerala (http://www.rsby.gov.in/). These increases indicate that the government-mandated limit of 750 INR needs to be revised upwards repeatedly. This point was emphasized earlier during the analysis of the initial experiences of the RSBY.

Moral Hazard

The problem of moral hazard is typically pertinent to a health insurance initiative such as the RSBY because neither patients nor hospitals have any incentive to limit availing themselves of medical services, even when the services are redundant. More particularly, if premiums are covered by the public budget and treatment costs are reimbursed completely by an insurance company, there is no economic incentive for an individual or a medical establishment to limit unnecessary visits. This moral hazard may be reflected in two forms—*ex-ante* and *ex-post*. The *ex-ante* moral hazard occurs when the presence of insurance makes people less likely to undertake preventive care. The *ex-ante* moral hazard may not currently be a significant problem, given that the utilization of medical facilities is low in poorer areas.

The *ex-post* moral hazard can occur if an RSBY beneficiary seeks treatment for minor ailments, treatments which she would not have availed herself of in the absence of this insurance initiative. There may also be supplier-induced demands, wherein physicians ask patients to undertake unnecessary tests and treatments. Moreover, it is possible that with more and more hospitals being empanelled under the RSBY, there will be greater competition for patients among hospitals. If the number of patients going to each hospital decreases, physicians and hospitals would have an incentive to earn more from each patient by creating demand for medical services. For example, it is postulated that a similar scenario is occurring in Japan, where medical costs have risen significantly in the past two decades. This increase is attributed primarily to rising per-patient costs, rather than to an increase in the number of incidents (Noguchi et al., 2005; *The Economist*, 2011).

In any event, the cost of availing oneself of the health programme increases without significant improvement in the quality of the medical service delivered. The increasing cost of medical procedures implies either greater premiums or lower profitability for the insurance company, perhaps to the extent of incurring losses. A greater premium is not currently in the RSBY agenda, given the government-imposed limit of 750 INR. In any case, redundant health visits are unproductive and should be discouraged by the system. The insurance companies can take various actions to verify and mitigate the redundant demands of RSBY beneficiaries, or they may simply step out of this programme if they cannot maintain profitability. Therefore, the challenge is how to protect the RSBY from cost escalation, while at the same time preventing the undue rationing of essential health care.

Typically, health insurers in developed countries such as the United States use deductibles and co-payments to reduce the problem of moral hazard. However, the BPL population that is a beneficiary under the RSBY may not be able to pay even a small amount; therefore, the introduction of user charges would only reduce their utilization of health care facilities. The burden of limiting redundant

health visits is thrust onto the shoulders of the medical establishments; the RSBY has created a mechanism to de-empanel medical establishments to control for this problem. Some hospitals have engaged in misconduct by providing unnecessary treatments, to the point of clear fraudulence. For example, in the district of Dangs in the state of Gujarat, several private sector hospitals submitted false claims for several months, driving the claims ratio for the district above 200 per cent (Palacios, 2010). Such cases have led to the creation of processes to de-empanel hospitals. The medical establishments that are proven guilty of malpractice are permanently excluded from the RSBY network. For example, the website of the RSBY (http://www.rsby.gov.in) shows 1,706 empanelled hospitals and 111 de-empanelled hospitals in the state of Uttar Pradesh, the most populous state of India.

The other side of the problem of moral hazard is the denial or the undue rationing of necessary health care services to the beneficiaries. The bidding process for an RSBY contract is repeated yearly, and insurers are evaluated based on their bids as well as on their past performance. Therefore, insurers have an incentive to not excessively ration services as long as they are able to break even. However, the cheques and balances used to monitor insurance companies are few and far between. A more rigorous method should be developed before the RSBY is expanded to other segments of the population.

There are several ways to incentivize users to not seek unnecessary treatments. Their coverage could be enhanced in the following year by a percentage of the unutilized amount. These benefits could be completely withdrawn if beneficiary families make substantial claims during the following period. This would act as a deterrent towards unnecessary treatment-seeking. To reduce the *ex-ante* moral hazard and ensure that people take adequate preventive care, the RSBY can incentivize beneficiary families to undergo vaccination, immunization and physical examinations. These preventive health care measures can reduce the possibility of disease and lead to fewer future hospitalizations.

Adverse Selection

The RSBY allows for any five members of a family to be included as beneficiaries. Moreover, it allows the above poverty line (APL) population to voluntarily enrol for RSBY provided they pay the insurance premium in its entirety. These clauses lead to multifaceted problems of adverse selection.

As mentioned, the RSBY covers all pre-existing health conditions. As only five members of a family are insured, a family would tend to insure those members who are at a greater risk for imminent health shock. Thereby, the rate of hospitalization would be higher for the beneficiaries of RSBY when compared to the general population. The RSBY is a welfare-oriented programme, and this draw of individuals from a riskier pool is indicative of the welfare proposition underlying this initiative, particularly regarding the most underprivileged segments of society. Nevertheless, the selection of individuals depends on a family decision, and these decisions typically display gender prejudices, as noted earlier. This prejudice is not a welcome outcome for a public programme, which should focus on uplifting the most underprivileged individuals, and working against the prevailing social prejudices. In practice, this yields to the demotion of women.

Furthermore, it is quite likely that those families that enrol in the RSBY and belong to the APL segment of the population bear a higher risk of an imminent health shock. Thereby, their inclusion increases the average riskiness of the pool of RSBY beneficiaries. This increased riskiness would raise the claim ratios and lead to an upward spiral in the insurance premium. It is essential that risk pooling be greatly increased to make the system sustainable. This point is also pertinent as the RSBY is ratcheting up the scope of the initiative through the inclusion of street vendors, *beedi* workers and domestic workers, and that too without providing informational or educational campaigns (Das & Leino, 2011).

The problem of adverse selection can be tackled through two possible measures. One alternative is to bring the entire Indian population under the RSBY, thereby negating the increase of average riskiness within the pool of RSBY beneficiaries through selective inclusion. Another alternative is to offer lifelong insurance coverage, rather than one-year coverage (Kumar et al., 2011). Under this alternative, inter-temporal risk pooling would take place, as any beneficiary would be insured throughout her lifespan, and thereby, low incidences of diseases at a young age would be offset by high incidences at an older age. The fact that the RSBY enrolment is voluntary makes it difficult to achieve either of the above alternatives unless the RSBY is pitched as an insurance scheme targeted toward universal health coverage.

In the short term, one proposed solution is to have high deductibles and co-payments—user charges—for the APL beneficiaries in the initial years and to phase out these user charges in subsequent years. Another possibility is to

introduce a fixed waiting period of perhaps six months following the enrolment when APL beneficiaries are not eligible to make claims under the RSBY. Both of these propositions attempt to reduce the likelihood that only the APL families with pre-existing conditions will join the RSBY. This limitation would, in turn, ensure that the possibility of health shocks for the APL families opting for the RSBY is no different compared to that of the general APL population.

Long-term Projections

Demographic changes related to the aging of the population can have a remarkable impact on health care costs. The share of India's population aged 60 or older has risen gradually from 5 per cent in 1950 to 7.5 per cent in 2010, and this share is projected to climb further to a substantial 20 per cent by 2050, representing more than 300 million people (Bloom et al., 2010). Factors underlying the aging of India's population include a falling fertility rate and increasing longevity. Life expectancy at birth, which is currently 64 years, will rise to around 74 years by 2050 (Bloom et al., 2010). There is an inherent heterogeneity among Indian states in this context. For example, in the state of Kerala, which is at the pinnacle of demographic transition, the share of the 60-plus population will rise from the current level of 12 per cent to 18.2 per cent in 2026 [figures based on National Commission on Population (2006) and Census of India (2011)]—in absolute terms, an enhancement of 2.8 million for the 60-plus population. This increase will eventually lead to much higher health expenditures.

During the course of development, a country typically undergoes an epidemiologic transition. In this transition, the predominant diseases and salient causes of mortality for an underdeveloped or developing country—for example, infectious diseases, maternal health problems and child mortality (0–4 years)—are replaced by non-communicable diseases (NCDs) such as cancers, diabetes, cardiovascular diseases and chronic obstructive pulmonary diseases, in addition to injuries and geriatric problems (Ministry of Health and Family Welfare, 2010). These NCDs have much higher treatment costs when compared to communicable diseases. Mahal et al. (2010) find that within NCDs, expenses per unit of utilization—a single hospital stay, a single hospital day of care, or an outpatient visit—are particularly high for cancer, heart disease, accidents or injuries, and kidney or urinary conditions. They further highlight the high treatment cost associated with these NCDs through a comparison of expenses to average per capita annual income. In 2004, a single hospital stay for cancer (or heart disease) would have accounted for anywhere between 40 per cent to 50 per cent of the average annual income in public hospitals and 80 per cent to 90 per cent in private hospitals. With India's population aging over time, with a higher incidence of NCDs in older age groups, and with evidence emerging that India's poor are at heightened risk of acquiring NCDs because of high rates of smoking and tobacco use, occupational risks and residential living conditions, NCDs will have an even larger financial impact (Ministry of Health and Family Welfare, 2010; Vellakkal, 2011). Distinguishing between the two types of NCDs is useful: progressive (for example, cancer), where the condition of the patient deteriorates over time if treatment is not sought in the early stages of the disease; and stable (for example, diabetes), where the patient must get regular medication to keep the disease under control (Kumar, 2010). In this context, an experienced physician opines that progressive NCDs can be treated under the purview of the RSBY only if they are detected in an early stage; however, the coverage under RSBY will be insufficient for late-stage progressive NCDs or for stable NCDs (Kumar, 2010).

In summary, cost escalation is considered inevitable in the long term because of population aging, epidemiologic transition and rising medical costs (Yip and Mahal, 2008). While these issues affect all health care systems, it is well known that demand-side insurance-based systems are not as effective at cost containment as supply-side public health care systems (McPake et al., 2002).

Concluding Remarks

The RSBY, a unique health insurance initiative in India based on a public–private partnership, is being publicized as a successful model to ensure quality health care for the underprivileged segments of society. Our investigation into this initiative, focusing on the initial experiences, suggests various potential concerns. These concerns include lack of accessibility and awareness leading to questionable welfare implications, institutional constraints and rigidities at various levels defeating the purpose of the initiative, the twin problems of moral hazard and adverse selection confronting the implementation process, a suggestion of gender bias, and, lastly, growing pains in the long-run due to epidemiologic transition.

The Government of India is quickly expanding the scope of this initiative with the intention to create a universal health care scheme. However, the government needs to create a matching health infrastructure for catering to the growing demand for health services. The Government of India, rather than relying upon the public–private partnership model to supplement the implementation of the RSBY, could simultaneously strategize a public–private partnership model to augment and expand the current health infrastructure, particularly given the fact that the targeted beneficiaries of this initiative generally inhabit remote and underdeveloped areas. The effectiveness of this initiative also needs to be evaluated periodically in order to overcome its growing pains.

Notes

1. To further facilitate the ability of the poor to avail themselves of health services, transportation charges are covered up to a maximum of 1,000 INR per year, with a limit of 100 INR per hospitalization.
2. Some states, like Kerala and Himachal Pradesh, have expanded the scope of RSBY by providing additional health benefits to BPL households for protection against chronic illness such as cancer and renal and cardiac diseases (http://www.chiak.org/, accessed 8 September 2011); (http://pipnrhm-mohfw.nic.in/, accessed 11 September 2011). In Himachal Pradesh, this expansion of the RSBY Scheme is called the Critical Life-Saving Health Insurance Scheme (RSBY Plus).
3. The insurance premium is determined at the state level through the open bidding process between registered insurers. Any additional premium in cases where the total premium exceeds 750 INR has to be borne by the corresponding state government.
4. A few successful examples of a PPP in the health sector follow: The Municipal Corporation of Delhi and the Arpana Trust are together providing comprehensive health services to the urban poor in Delhi's Molarbund resettlement colony; The Society for Education Welfare and Action (SEWA)—Rural, which provides rural health, medical services and manages the public health institutions on the pattern of government, is getting a grant from the Government of Gujarat to manage one Public Health Centre and three Community Health Centres; The Government of Karnataka has contracted a couple of Primary Health Centres in hilly areas to the Karuna Trust to serve the tribal community; and Narayana Hrudayalaya, a super-speciality heart hospital in Bangalore and the Department of Co-operatives of the Government of Karnataka are jointly running Yeshasvini Co-operative Farmer's Healthcare Scheme, a health insurance initiative targeted to benefit the poor (Planning Commission, 2008).
5. See the RSBY website at http://www.rsby.gov.in/ for policy guidelines.

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