Do Health Camps Make People Healthier?: Evidence from an RCT of Health Camps on Usage of RSBY

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June 27, 2011

Abstract

Through randomized control trials, we estimate the impact of three interventions designed to increase awareness and utilization of Rashtriya Swasthya Bima Yojana (RSBY), a government subsidized health insurance program for the poor in India. In the three years since its launch, RSBY has been rolled out to over 80 million individuals yet the program still suffers from low levels of usage among policy holders in some areas. The three interventions – health camps held at the panchayat level by public and private hospitals, health camps held at the village level by a local NGO, and an independent audit of the enrolment process by a local NGO – were designed to increase utilization of the scheme by making beneficiaries more aware of their rights under the scheme and prompting those who need medical attention to use RSBY to receive treatment. We find no effects of the health camp interventions on RSBY claims. Our findings suggest that health camps, as practiced in these two interventions, are not an effective means of increasing utilization of a public health insurance scheme such as RSBY. We are unable to estimate the direct effect of the enrolment audits on claims but find that the site visits by auditors to villages had no impact on claims.

1 Introduction

In 2006, the Government of India launched Rashtriya Swasthya Bima Yojana (RSBY), or “National Health Insurance Scheme,” in an attempt to increase access to medical services for the poor. The scheme provides INR 30,000 in coverage for major medical treatments to enrolled households at any hospital,

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public or private, empanelled under the scheme for one year. All households officially designated at “Below Poverty Line” (BPL) by their respective state government are eligible for the scheme but must pay 30 INR for each year of coverage. \(^1\) (For a comprehensive overview of the RSBY scheme including details such as what types of treatments are covered see Palacios (2010) and the RSBY website at www.rsby.gov.in.)

The introduction of RSBY represented a major departure from previous public health interventions in India in several ways. First, RSBY is the first major public health intervention to focus on the demand side of health care. Traditionally, financing for public health in India has focused on increasing the supply of health care through funding of public hospitals and health care centres. Several studies have shown that due to limited accountability in the public health care system much of this funding is wasted. For example, in a survey of health care worker attendance conducted across 20 states in India, Chaudhury et al. find that 40% of health care staff at the local level were absent at the time of a survey. (Chaudhury, Hammer, Kremer, Muralidharan, & Roger, 2006) Further, Das and Hammer find that for a sample of doctors in Delhi public doctors exert much less effort than their private sector counterparts. (Das & Hammer, 2007) Given these findings it is not surprising that, even among the poor, patients seek care at private facilities nearly 80% of the time even though, in theory, treatment at public facilities is free. (Peters, Yazbeck, Sharma, Ramana, Pritchett, & Wagstaff, 2002)

Under RSBY, funding to hospitals is directly tied to the number of treatments the hospital provides to beneficiaries and any hospital, public or private, which meets certain basic criteria such as having at least 10 beds may participate in the scheme. By tying fund flow to patient choice and allowing a broad range of hospitals to participate, RSBY creates a strong incentive for hospitals to compete for patients and ensure high quality of service.

Second, RSBY is the first public health scheme to outsource implementation and monitoring at the local level to third party agencies. Each year in each district in which RSBY is operating, a single insurance company is selected through a competitive tendering process to implement the scheme. This insurance company is then responsible for all activities related to enrolment of households, recruitment of hospitals into the scheme, and processing of claims. Because insurance companies are paid a fixed premium per household (based on the amount they bid) and must cover all claims out of pocket the companies have a strong incentive to enrol as many households as possible in the scheme and to closely monitor for fraud.

Third, RSBY is the first scheme to use a smartcard based platform to process transactions. Each household is given a smartcard which securely stores the fingerprints and names of all household members enrolled in the scheme as well as the amount left on the policy and several other details. At the time of treatment, the identity of the household member seeking treatment and the

\(^1\)The 30 INR paid by RSBY beneficiaries represents only a small fraction of the total cost of the program. The remainder of the premium, typically between 400 and 650 INR is paid in part (75%) by the central government and in part (25%) by the respective state government.
amount left on the card are verified through the use of a smartcard reader and fingerprint reader at the hospital. The use of smartcards in this way allows for a secure cashless model – that is the card holder is not required to pay any cash up front even in areas with no connectivity.

In the three years since the creation of RSBY, the scheme has registered impressive growth. As of the publication of this report, over 23 million households across 24 states have enrolled in the scheme and over 1.3 million claims had been processed under RSBY for an overall utilization rate of 3.9%. Further, claims have been steadily rising since the inception of the program (see figure 1). Given that both state governments and households themselves are required to contribute to the cost of the scheme this is no small achievement.

Yet despite the strong growth of the scheme and the robust overall utilization rate, high level data as well as surveys and interviews with cardholders conducted by the authors reveal that many cardholders remain unaware of the benefits of the scheme. At the district level, utilization varies greatly. Figure 2 shows the distribution of utilization rate by district. While some of this variance in district-wise utilization may be due to such factors as varying demand for medical services, incidence of fraud, or interest from hospitals in participating in the scheme, much of it is likely due to different levels of awareness of the scheme in different districts.

Further, interviews with card holders revealed that even in areas with relatively high utilization many enrolled households were only vaguely familiar with the scheme and were unaware of crucial details such as that the card can be used at private as well as public hospitals.

Given the incentive structure within RSBY, the limited capacity of the state agencies overseeing RSBY, and the inherent challenges in educating people about health insurance, this lack of awareness among some beneficiaries is hardly surprising. Once households are enrolled, the primary entity responsible for managing RSBY on the ground, the insurance company, has no incentive (and indeed, has a negative incentive) to ensure that card holders are informed about the scheme. For this reason, RSBY guidelines stipulate that the government departments managing RSBY at the state level are responsible for conducting information and education campaigns (IEC) to ensure that card holders are aware of their benefits. Yet these state level departments are often undermanned (most have less than 10 staff) and constrained in their efforts to outsource functions by cumbersome procurement procedures. Further, these state level departments are hampered in their efforts by the inherent difficulties of educating poor households on what is, for many of them, a new product. Despite these challenges, several state level departments have made impressive efforts to educate RSBY card holders through innovative techniques such as television shows, radio shows, and “jingles” played during market days but overall much more is needed to ensure that information about benefits reaches card holders.

\(^2\)Utilization rate here is defined as the share of enrolled households in districts and rounds which have completed a full policy period which have used their RSBY cards to receive treatment at least once.
Due to the limited resources available for administration of RSBY, it is critical to understand what types of activities are most effective in raising awareness and usage. In this paper, we estimate the impact of three separate interventions intended to raise awareness and utilization of the scheme: health camps held at the panchayat level by public and private hospitals, health camps held at the village level by a local NGO, and an independent audit of the enrolment process by a local NGO. Unfortunately, we find no effects of the health camp interventions on RSBY claims. Our findings suggest that health camps, as practiced in these two interventions, are not an effective means of increasing utilization of a public health insurance scheme such as RSBY. We are unable to estimate the direct effect of the enrolment audits on claims but find that the site visits by auditors to villages had no impact on claims.

2 The Interventions

Randomized control trials of three separate interventions were conducted. Each of these interventions is described in more detail below.

2.1 Health Camps in Jharkhand

A set of 28 “health camps” were held in two districts, Deoghar and Ranchi, of Jharkhand. At each health camp doctors from a local public health centre and, in some cases, doctors from one or more private hospitals travelled to the health camp area for a day and diagnosed patients and distributed basic medicine free of cost. At several of the health camps additional medical facilities such as malaria testing, tuberculosis testing, vision testing, X-ray, and ECG were also provided through the deployment of a “mobile medical unit” (a large bus outfitted with various medical equipment operated by NGOs on behalf of the government). In cases where a patient was enrolled in RSBY the patient was encouraged to seek medical treatment under the scheme at a RSBY hospital. The health camps were organized and run by the insurance company responsible for implementing RSBY in the two districts, Cholamandalam, and local public health centres. According to the design of the health camps, residents were to be informed about the camps through a combination of “miking” (announcement via a loudspeaker attached to a small vehicle which roams around the targeted area) and through local public health workers and sarpanch officials. In practice, out of the 10 health camps for which we investigated whether miking was conducted, miking was conducted prior to the health camp in only 7 instances. Local health workers and sarpanch officials were more diligent in their efforts to notify the local community – in most cases it appeared that either a local health worker or sarpanch official had effectively informed the local public.

Each health camp was intended to cover residents from an entire Gram Panchayat, a local administrative unit consisting of several villages. In Deoghar district, the 16 gram panchayats where the health camps were held were randomly selected from among all 137 gram panchayats in the district with at least
one household enrolled in RSBY. In Ranchi district, one gram panchayat was randomly selected from each block for health camps to be conducted in from among all gram panchayats. Due to local Maoist activity and weather, health camps were only conducted in 12 out of the 14 randomly selected locations in Ranchi.

2.2 Cost of Medicine Provided at Jharkhand Health Camps

In the results section of this report we estimate the benefit, in terms of the increase in utilization, of performing health camps. To arrive at a decision of whether or not health camps, as they were conducted in Deoghar and Ranchi, are an effective means of increasing utilization of RSBY we must balance these potential benefits against the cost of conducting the health camps. Unfortunately, it would be extremely difficult to estimate the likely cost of the health camps if they were to be scaled up. In implementing the health camps, the state government relied on the time and effort of local officials which the RSBY state nodal agency does not have any direct authority over such as the chief medical officers of public health centres as well as the time and effort of staff of the insurance company. This was possible only because state and district level officials in other departments were receptive to the idea of health camps and because the insurance company was eager to demonstrate that they were serious about ensuring the success of the program.

We can at least estimate the cost of the free medicine provided at the health camps. At one of the health camps, the authors tracked all medicine provided over the course of the health camp. The retail cost of the medicine was then obtained by trips to several local pharmacies. The overall estimated cost of the medicine provided at this one health camp was INR 18,784. Since the number of patients at this health camp was slightly less than double the average number of patients, a crude estimate of the total cost of the medicine provided per health camp is INR 10,000.

2.3 Health Camps in Uttar Pradesh

In addition to the health camps in Jharkhand, 37 health camps were conducted in 14 locations in Bijnor district of Uttar Pradesh. The health camps conducted in Bijnor differed from those in Jharkhand in several respects. First, the health camps in Bijnor were led by a local NGO, World Health Partners (WHP), and conducted at a set of local “health centres” run by WHP. WHP health centres, known at Sky Health Centres, are independent franchises operated by a local member of the community which provide “telemedicine” facilities where patients may consult a doctor in Delhi through the use of a computer with internet connectivity and a specialized application. (These telemedicine facilities were not utilized for the majority of health camps though due to the limited time available to see each health camp patient.) Second, no doctors were present at the Bijnor health camps. Patients were seen and referred by the owners of WHP health centres themselves. Health centre owners were given brief training by
WHP staff on several common ailments for which patients should be referred to hospitals and many owners have some training in medicine (typically a Bachelor of Ayurvedic medicine degree) but none were doctors. Third, medicine was not provided for free at the Bijnor health camps. Fourth, unlike at the Jharkhand health camps, extensive marketing was done prior to the Bijnor health camps. Health centre owners distributed a WHP-designed pamphlet to members of the local community and local health care workers (auxiliary nurse midwives) were also enlisted to advertise the health camps. Fifth, at some but not all of the health camps organized by WHP patients were charged a small fee (5 to 10 INR).

Thirteen of the fourteen locations where health camps were conducted were randomly selected from among the 45 WHP health centres operating in Bijnor at the commencement of the study. (The fourteenth location was selected by WHP which, in its zeal, conducted an additional health camp at a health centre not among this list of randomly selected health centres.) The original proposal called for 40 health camps to be conducted at these health centres (3-4 health camps per centre) but due to resistance from owners of some health centres only 37 health camps were conducted.

2.4 Cost of Uttar Pradesh Health Camps

The total cost charged by WHP to implement the 37 health camps was USD 37,156 or roughly USD 1000 per health camp. In contrast to the estimate of the cost of medicines provided at the Jharkhand health camps, this figure likely overstates the probable cost of scaling up this intervention. WHP spent significant effort in designing a training manual for health camps owners and marketing materials for the health camps. These fixed costs would not need to be incurred again if the health camps were repeated in another location.

2.5 Comparison of Health Camps in Jharkhand and Uttar Pradesh

Basic details of each health camp such as the number of patients, the number of RSBY card holders, and facilities provided were recorded by a local employee hired by the World Bank. In addition, at the time of the health camps, a short questionnaire was administered to a large portion of the patients. (This questionnaire was intended to be administered to all patients but at many health camps this proved impossible either because the number of patients attending the camp was too many for the person filling the questionnaire to handle or because the doctors saw patients who had not already filled out the questionnaire.) A few relevant figures from these two data sources for each of the three districts are provided in the table 1.
2.6 Enrolment Audits in Jharkhand

From interviews by the authors with RSBY cardholders conducted during the health camps, it became apparent that insurance companies were not always adhering to the guidelines for enrolment of households into RSBY. According to these guidelines, insurance companies must verify the identity of households at the time of enrolment through the presence of a local official nominated for this purpose (a “field key officer”), print and deliver the RSBY smartcard to households which enrol immediately after enrolment, and provide a pamphlet containing basic information about RSBY and a list of local RSBY empanelled hospitals. In practice, field key officers were often not present at the time of enrolment, smartcards were often printed after enrolment at a central location and then given to a single person in each village rather than directly to the beneficiaries, and RSBY pamphlets were often not distributed.

In an attempt to provide greater scrutiny of the enrolment activities conducted in Deoghar district for the second round of RSBY, Population Services International (PSI), an international NGO focusing on issues of public health, designed a strategy for conducting audits in villages where RSBY enrolment had recently been conducted to verify that enrolment guidelines were followed. PSI contracted the services of a local NGO focusing on microfinance and health, the Network for Enterprise Enhancement and Development Support (NEEDS), to perform these audits. In each audit, a team of two local volunteers trained by NEEDS staff visited the village and asked 10 randomly selected BPL households several questions related to RSBY enrolment. These questions were intended to elicit two basic pieces of information: whether smartcards had been distributed on the spot and whether newly enrolled households were provided a pamphlet with information on RSBY and a list of local RSBY empanelled hospitals.

The primary purpose of the audits was to put pressure on Cholamandalam, the insurance company implementing RSBY in the district, to adhere to the mandated enrolment guidelines. Unfortunately, as any effects of the audits on the general enrolment practices of the insurance company would have occurred at the district level (or higher) it is impossible to rigorously estimate these effects. A secondary purpose of the audits was to increase awareness among households the field staff interviewed in the specific villages selected for audits. Often, if a household interviewed by NEEDS volunteers was unaware of the basic details of RSBY the volunteers would explain these details. As the villages in which the audits were conducted were randomly selected from among all the villages in which the insurance company reported conducting enrolment, it is possible to rigorously estimate the impact of this potential secondary effect of the audits.

In total, 304 out of the 826 villages in which Cholamandalam reported conducting enrolment were selected for auditing. Out of these 304 villages, audits were conducted in 204 villages. In most cases, the reason that an audit did not take place in a village selected for auditing was that there were fewer than 10 BPL households in the village. (Audit guidelines specified that a minimum of 10 BPL households be interviewed. It is possible to determine the number of
BPL households from the data but as this is a laborious process NEEDS only performed this exercise for those villages which were randomly selected. In our analysis we drop all villages with fewer than 10 BPL households.) In some cases though, NEEDS staff were unable to travel to the village or did not complete the audit for some other reason.

The analysis presented in the results section of this report uses data from only a subset of the villages. According to the design of the intervention, the insurance company was to provide a list of villages in which enrolment had recently been conducted on a regular basis and NEEDS was to randomly select a subset of these villages for auditing. In practice, two of the eight lists provided by the insurance company contained a high degree of overlap and for three of the lists NEEDS selected all, or nearly all, of the villages for auditing. Due to the difficulties in determining the precise probability of selection for villages in the two lists that overlap and that there were almost no unselected villages in the three other lists, all of the villages from these five lists were excluded from the analysis. Lastly, as any village with fewer than BPL households which was initially selected for auditing was not included in the final list of villages to be audited, all villages with fewer than 10 BPL households were dropped from the analysis.

In the three village lists that were included in the analysis, there were a total of 176 villages with at least 10 BPL households of which 127 were randomly selected for audits. Out of these villages, audits were actually conducted in 116 villages.

2.7 Cost of NEEDS Audits

In total, NEEDS was paid INR 126,000 to conduct the 304 audits or INR 414 per audit. As with the health camps, the cost of scaling up such an intervention in other areas may be substantially different from the cost of the audits analysed in this report.

3 Data

All insurance companies and third party administrators involved in RSBY are required to submit various details related to the implementation of RSBY, including data on enrolment and claims, to a central backend server on a regular basis. Most of the data used in this analysis has been collected from this source. In addition, this data has been supplemented with some manually maintained claims data for Jharkhand.  

Scrutiny of this data by the authors revealed several inconsistencies. Much of the individual level data, especially age and gender, were found to be implausible. (For example, many individuals were over 100 years of age or fathers

\footnote{Due to a delay in the renewal of RSBY in the state, claims in Jharkhand were processed manually rather than online for several months in early 2010. Claims from this period were recorded manually by the insurance company but were not uploaded to the backend database.}
were younger than 10 years old.) Further, in many cases it appears that the same claim was recorded multiple times. We prevent these errors from contaminating our results by not relying on individual level data and only using the number of households that have sought treatment under RSBY, rather than the total number of claims, in our analysis. (An additional reason for not using the gross number of claims is that due to the coding of different types of treatments under RSBY, hospitals often submit several claims for a single patient visit.) Other data errors are more problematic. In many cases, the dates of claims are implausible (for instance, a date several years in advance). In others, the card number from a claim record could not be located in the list of enrolled households (this could indicate either incorrect coding of the card number, in the case of manually maintained data, or incomplete enrolment data). Still, while minor inaccuracies in the data may add noise to the analysis it is extremely unlikely that the rate of data errors is correlated with the random selection of villages or gram panchayats treated under the interventions.

Summary statistics from the full dataset are provided in table 2.

4 Empirical Model

As there was incomplete compliance with the initial random selection of which units should receive the treatment in two out of three of the interventions (that is, in the case of the Jharkhand health camps and NEEDS audits, not all of the gram panchayats or villages selected to either host a health camp or be audited actually hosted a health camp or were audited) we estimate both the intention to treat effect (ITT) and the local average treatment effect (LATE) for these two interventions. The former refers to the impact of selecting a unit to receive the treatment, regardless of whether the treatment was in fact conducted in the unit, and is straightforward to estimate. For example, to estimate the ITT for the Jharkhand health camps we use an equation of the form:

\[ Y_i = \alpha + \gamma \cdot SELECTED_i + \beta \cdot NUMENROLLED_i + \delta_i \cdot BLOCK + \epsilon_i \quad (1) \]

Where \( i \) references gram panchayat, \( Y_i \) is our outcome variable of interest, \( SELECTED_i \) is a binary variable equal to 1 if gram panchayat \( i \) was selected to host a health camp and 0 otherwise, \( NUMENROLLED_i \) is the number of households enrolled in the first round (centred around its mean to facilitate interpretation of regression results), and \( BLOCK \) is a vector of indicator variables for each block in Ranchi district. The block dummies for Ranchi district control for the varying probability of selection as well as for the varying time window for which claims are aggregating for gram panchayats in Ranchi.

The local average treatment effect (LATE) refers to the impact of receiving the treatment on those units for which being selected to receive the treatment...
caused the unit to receive the treatment. (For example, in the case of the NEEDS audit, the LATE is the impact of selecting a village to receive an audit for those villages which if not selected would not have an audit but if selected would have an audit.) Our estimates of LATE rely on two weak assumptions. First, we assume that for all units, selecting the unit to receive the treatment does not reduce the probability that the unit will receive the treatment. Second, we assume that the act of selecting a unit to receive the treatment does not directly affect our outcome variables except by increasing the likelihood of the unit receiving the treatment. (Imbens & Wooldridge, 2009)

To estimate LATE for the Jharkhand health camps, we perform a two stage least squares regression of the following simultaneous equations:

\[ Y_i = \alpha + \gamma \times CONDUCTED_i + \beta \times NUMENROLLED_i + \delta_i \times BLOCK + \varepsilon_i \]  

\[ CONDUCTED_i = \tau + \omega \times SELECTED_i + \beta \times NUMENROLLED_i + \varepsilon_i \]  

Where \( CONDUCTED_i \) is a binary variable equal to 1 if a health camp was conducted in gram panchayat \( i \) and 0 otherwise.

Our equations for the analysis of the impact of the NEEDS audits are identical with the minor exception subscript \( i \) denotes village rather than gram panchayat and the dummy variables for blocks are replaced by dummy variables for the list which the village was selected from.

In the case of the Bijnor health camp analysis, all locations selected for health camps hosted a health camp. Thus, we may directly estimate the impact of the Bijnor health camps (rather than the ITT or LATE) through a regression of the simple equation below.

\[ Y_i = \alpha + \gamma \times CONDUCTED_i + \beta \times NUMENROLLED_i + \varepsilon_i \]  

As our unit of analysis for the Bijnor health camps is the village but randomization took place at the health centre level, standard errors are clustered by a variable indicating which health centre the village is covered by.

In all three analyses, our main outcome variable of interest is the number of households in each gram panchayat or village that have utilized RSBY. The time window over which we aggregate the number of households receiving treatment varies by intervention and, in the case of the Jharkhand health camps, by block. For the Bijnor health camps, all claims from the date of the first health camp in the district (10th of June, 2010) to the date at which the back up of the backend database was taken (1st Feb, 2011) are included when determining the
total number of households that used RSBY in each village. For the NEEDS enrolment audits, all claims which were processed using smartcards distributed during the second round of enrolment (the round of enrolment for which the audits were conducted) were included. The earliest such claim was processed in mid-July 2010. For the Jharkhand health camps, the rule for which claims are included varies by district. For Deoghar district, all claims from the date of the first health camp in the district (8th of April, 2010) to the date when the back up of the database was taken are included. For Ranchi district, all claims between the date of the health camp in the block and the backup of the database are included. (The varying length of the time window is accounted for by the dummy variables for the blocks in the equations above.)

In addition to this primary outcome variable, we also estimate the impact of the Jharkhand health camps on the number of households enrolling in RSBY during the second round of enrolment which occurred shortly after the implementation of the health camps.

5 Results

Detailed results are included in tables 3, 4, and 5. For all three interventions, we find negligible, and in most cases negative, impacts on the number of households receiving treatment under RSBY. For none of the interventions or specifications are these results statistically significant. We do find a large positive impact of the Jharkhand health camps on second round enrolment but this result is not statistically significant.

Our disappointing results simplifies our task of assessing whether health camps, as implemented in Jharkhand and Bijnor, UP, are an effective means of increasing utilization. With a non-negligible positive result, we would be forced to engage in the tricky business of attempting to weigh the benefit of the health camps against the cost of conducting them. These disappointing results clearly show that these health camps are not worth the cost.

6 Concluding Remarks

Our results indicate that health camps, as they were conducted in Jharkhand and Uttar Pradesh for RSBY, are not an effective means of increasing utilization of RSBY. In addition, we are unable to find any increase in utilization due to the presence of enrolment auditors in a village.

In our personal visits to several of the health camps as well as discussions with government officials, doctors, and other involved in the implementation of the health camps, we identified several potential reasons for the apparent failure of the health camps to increase utilization. We should stress that while the information presented in this report up until this report is based on empirical analysis, the following discussion relies heavily on our own speculation.
First, many complained that the distribution of free medicine at the Jharkhand health camps created a carnival-type atmosphere where many residents without any legitimate ailment showed up solely to receive the free medicine. Some of the doctors estimated that as many as half of the patients attending the Jharkhand health camps were not actually sick and showed up just for the free medicine. These doctors complained that this made it harder to dedicate time to the worthy patients and to discuss RSBY.

Second, neither the Jharkhand health camps nor the Bijnor health camps strongly targeted RSBY card holders making it difficult to disseminate information about the program. While RSBY was mentioned in the marketing of the health camps, it was made clear that all residents, regardless of whether they were RSBY policy holders, could attend. There were very good reasons for this inclusive policy: in Jharkhand it was deemed politically unacceptable to deny a segment of the population access to the health camps. Yet this policy also made it much more difficult to disseminate information about health camps. In the authors experience, in cases where the vast majority of patients were RSBY card holders a useful discussion regarding the benefits of the scheme took place but when RSBY card holders were in the minority these discussions were much rarer.

After the health camps in Jharkhand and Uttar Pradesh, the authors worked with state officials in Karnataka to conduct a similar set of health camps in which medicine was not provided for free and RSBY card holders were strongly targeted. The initial experience of these camps was positive, with much higher numbers of RSBY card holders attending each camp, but unfortunately due to the low number of camps conducted and the non-random nature of site selection we are unable to conclude whether these camps did in fact have more of an impact than those in Jharkhand and Uttar Pradesh.

References


Figure 1

Total RSBY Claims by Month

Number of New Claims

Month

Jan-09  Apr-09  Jul-09  Oct-09  Jan-10  Apr-10  Jul-10  Oct-10  Jan-11
Note: A single district with extremely high utilization due to rampant fraud has been excluded from this graph.
Figure 3

Monthly Claims

Total Number of New Claims

- Bijnor
- Deoghar
- Ranchi

Month

Mar-09 Jun-09 Sep-09 Dec-09 Mar-10 Jun-10 Sep-10 Dec-10
### Table 1: Summary Statistics of Health Camp Patients

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Deoghar</th>
<th>Ranchi</th>
<th>Bijnor</th>
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</thead>
<tbody>
<tr>
<td>Number of health camps</td>
<td>16</td>
<td>12</td>
<td>37</td>
</tr>
<tr>
<td>Approximate total number of patients</td>
<td>2760</td>
<td>3255</td>
<td>1884</td>
</tr>
<tr>
<td>Approximate number enrolled in RSBY</td>
<td>313</td>
<td>276</td>
<td>126</td>
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<tr>
<td>Percentage female</td>
<td>56%</td>
<td>54%</td>
<td>56%</td>
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<tr>
<td>Average Age</td>
<td>34</td>
<td>34</td>
<td>34</td>
</tr>
<tr>
<td>Median number of minutes spent travelling to the health camp</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
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### Table 2: Summary Statistics from Full Dataset

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Gram Panchayats Included in Jharkhand Health Camp Analysis</th>
<th>Villages Included in Bijnor Health Camp Analysis</th>
<th>Villages Included in NEEDS Audit Analysis</th>
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<tbody>
<tr>
<td>Total Number of Units (Gram Panchayats / Villages)</td>
<td>613</td>
<td>350</td>
<td>176</td>
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<tr>
<td>Total Number BPL Households Round 1</td>
<td>410685</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Total Number BPL Households Round 2</td>
<td>NA</td>
<td>22873</td>
<td>9829</td>
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<tr>
<td>Total Households Enrolled Round 1</td>
<td>90827</td>
<td>NA</td>
<td>NA</td>
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<tr>
<td>Total Households Enrolled Round 2</td>
<td>118081</td>
<td>17417</td>
<td>4684</td>
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### Table 3: Impact of Jharkhand Health Camps

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<th></th>
<th>ITT</th>
<th>LATE</th>
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<tbody>
<tr>
<td></td>
<td>Num hhs treated under RSBY</td>
<td>Num hhs enrolled round 2</td>
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<tr>
<td>GP selected for health camp</td>
<td>-0.074 (0.962)</td>
<td>55.780 (0.119)</td>
</tr>
<tr>
<td>Health camp conducted</td>
<td>0.018 (0.000)</td>
<td>0.280 (0.000)</td>
</tr>
<tr>
<td>Num hhs enrolled round 1</td>
<td>0.018 (0.000)</td>
<td>0.280 (0.000)</td>
</tr>
<tr>
<td>Constant</td>
<td>-2.766 (0.051)</td>
<td>108.652 (0.000)</td>
</tr>
</tbody>
</table>

Notes: Coefficients on Ranchi block dummy variables excluded to aid readability. P-values in parentheses.

### Table 4: Impact of Bijnor Health Camps

<table>
<thead>
<tr>
<th></th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Camp Conducted in Village</td>
<td>-0.054 (0.796)</td>
</tr>
<tr>
<td>Num hhs enrolled</td>
<td>0.024 (0.000)</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.131 (0.555)</td>
</tr>
</tbody>
</table>

Notes: Errors clustered by health centre. P-values in parentheses.

### Table 5: Impact of Enrolment Audits

<table>
<thead>
<tr>
<th></th>
<th>ITT</th>
<th>LATE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Village selected for audit</td>
<td>0.006 (0.951)</td>
<td>0.007 (0.957)</td>
</tr>
<tr>
<td>Audit conducted</td>
<td>0.017 (0.000)</td>
<td>0.017 (0.000)</td>
</tr>
<tr>
<td>Num hhs enrolled</td>
<td>0.017 (0.000)</td>
<td>0.017 (0.000)</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.066 (0.528)</td>
<td>-0.066 (0.624)</td>
</tr>
</tbody>
</table>

Notes: Coefficients on Ranchi block dummy variables excluded to aid readability. P-values in parentheses.