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Costs and consequences of a cash transfer for hospital births in a rural district of Uttar Pradesh, India

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ABSTRACT

The *Janani Suraksha Yojana*, India's "safe motherhood program," is a conditional cash transfer to encourage women to give birth in health facilities. Despite the program's apparent success in increasing facility-based births, quantitative evaluations have not found corresponding improvements in health outcomes. This study analyses original qualitative data collected between January, 2012 and November, 2013 in a rural district in Uttar Pradesh to address the question of why the program has not improved health outcomes. It finds that health service providers are focused on capturing economic rents associated with the program, and provide an extremely poor quality care. Further, the program does not ultimately provide beneficiaries a large net monetary transfer at the time of birth. Based on a detailed accounting of the monetary costs of hospital and home deliveries, this study finds that the value of the transfer to beneficiaries is small due to costs associated with hospital births. Finally, this study also documents important emotional and psychological costs to women of delivering in the hospital. These findings suggest the need for a substantial rethinking of the program, paying careful attention to incentivizing health outcomes.

1. Introduction

Despite its recent economic development, India faces important challenges to improving maternal and infant health (Bhutta et al., 2004; Claeson et al., 2000). India's vital registration system found that the national maternal mortality rate was 178 deaths per 100,000 births in 2010–2012, and 292 in Uttar Pradesh, the country's most populous state, and the state in which the field work for this study was carried out (Office of the Registrar General, 2013). Neonatal mortality is also very high: 35 per 1000 live births nationally in 2008, and 50 per 1000 live births in Uttar Pradesh in 2011 (Annual Health Survey, 2011).

In order to reduce maternal and neonatal mortality, the Indian government introduced the *Janani Suraksha Yojana* (JSY), a "safe motherhood program," in 2005. JSY provides cash transfers to women who give birth in government and accredited private health facilities rather than at home, and in some circumstances, payments to village health workers to accompany pregnant women to health facilities for delivery. In 2009–2010, according to administrative data compiled by Accountability Initiative (2012), India's JSY program cost about $300 million, and had over 10 million beneficiaries, making it the largest conditional cash transfer in the world by number of beneficiaries (Lim et al., 2010). The Government of India allocated 11 percent of the budget of the National Rural Health Mission, an initiative of rural health sector reform, to JSY.

JSY's strategy of encouraging hospital births takes a different approach than previous efforts from India to make home birth safer, such as training birth attendants and promoting good neonatal care practices (Stephens, 1992; Kumar et al., 2008). JSY is part of a larger group of recent programs in South Asia that subsidize hospital deliveries, including a voucher scheme in Bangladesh (Ahmed and Khan, 2011; Nuygen et al., 2012) and the Safe Delivery Incentive Program in Nepal (Ensor et al., 2009; Witter et al., 2011; Powell-Jackson and Hanson, 2012). A related program is Rwanda's "Pay for Performance," in which health centers were paid by the visit and service. Basinga et al. (2011) found that this program increased hospital deliveries without improving some aspects of quality of care, such as prenatal visits.

Surveys have found high rates of participation in JSY (UNFPA, 2008; Khan et al., 2010; Sidney et al., 2012) and there are now several quantitative impact evaluations of the program. These studies find that JSY increases hospital delivery but does not improve health outcomes. Dongre (2010) finds that finds that Indian states that got higher intensity JSY programs improved rates of

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hospital delivery faster than states that got lower intensity programs. Mazumdar et al. (2011) find that JSY has failed to improve neonatal mortality. Lim et al. (2010) use three identification strategies to look for an effect of JSY on neonatal mortality. The first two strategies, a matching analysis and a "with-versus-without" analysis, are methodologically weak because they fail to account for selection of women into the program. The third strategy is a district level difference-in-differences analysis which compares the change in neonatal mortality in districts that got JSY with the change in neonatal mortality in districts that did not get the program. This strategy is methodologically strongest, and does not find an effect of JSY on neonatal mortality. Lim et al. (2010) also use this strategy to look for an effect of JSY on maternal mortality and do not find one.

Qualitative studies are needed to understand the puzzle of why JSY increases hospital births without improving health outcomes. The few qualitative studies that exist are implementation studies that focus on the administrative details of the program (Malini et al., 2008; Scott and Shanker, 2010). The main contributions of this study are to address the question of why JSY does not improve health outcomes, and to provide a clear picture of the value of the program to beneficiaries. The findings suggest that JSY does not improve maternal and infant health because the program does nothing to restructure the incentives of service providers in a dysfunctional health system (see Das and Hammer (2007), Banerjee et al. (2008)). Service providers are focused on capturing the economic rents from JSY, and provide an extremely poor quality of care.

Even if the conditionality of a cash transfer program does not improve outcomes, it might still be worthwhile if it transfers money to families in poverty in a time of need. For instance, Case (2002) describes the South African pension, a relatively large unconditional transfer that is used by families to invest in health improvements. This paper, which provides a detailed accounting of the costs of home and hospital births, finds that the value of JSY transfers to beneficiaries is small. It also finds that women who deliver at the hospital have emotionally and psychologically taxing experiences that should be included when considering the value of the program.

2. Setting & context

JSY uses pre-program rates of institutional delivery to distinguish between "low-performing" and "high-performing" states, and considers Uttar Pradesh, the state where this study took place, to be "low-performing." JSY transfers to beneficiaries are higher in low-performing states than high-performing ones, and, other than delivery in an approved institution, there are no eligibility requirements (see Dongre (2010) for more details). Although at the national level, the program allows women who deliver in accredited private facilities to receive JSY transfers; in Uttar Pradesh, JSY transfers are only made to women who deliver in public facilities (Khan et al., 2010). The program does not make transfers for women who deliver at home.

Three villages from a poor, populous, rural district in Uttar Pradesh were studied as a part of this project.[1] The district has high early life mortality; neonatal mortality was almost 15% higher than the Uttar Pradesh average in 2011 (Annual Health Survey, 2011). The villages were selected from three *Gram Panchayats* (local government administrative units) for their caste and class diversity. All are located within 10 km of the district capital town. Only one of the villages has any households with electricity, and many families live in houses made of mud and cow dung rather than bricks and cement. The choice to study only three villages was made in order to permit the researcher to make repeated visits to the same participants. This longitudinal approach increased the depth of information gathered by allowing the author to gain access to, and the trust of, pregnant and recently delivered women, a group who, in rural Uttar Pradesh, is often sheltered from outsiders.

The villages chosen for the study are arguably among the places where JSY is most likely to affect the fraction of deliveries that take place in health facilities. The fraction of facility-based deliveries in the district before JSY was implemented was quite low; the District Level Health Survey (DLHS) 2002 indicates that less than 20 percent of women who gave birth in the district between 2001 and 2002 did so in a health facility, and the DLHS 2008, which was collected as the JSY program was being launched in the district, found that 21.4 percent of last births since 2004 took place in a health facility. These figures indicate the large potential for behavior change in response to JSY.[2]

Birth histories suggest that JSY had an effect on the delivery location of the 20 women who participated in the study; details about the participants are given below. Most of the women in the study had given birth or been pregnant prior to the studied birth. Only 27% of their prior births took place in a health facility rather than at home. Of births that took place before 2008, the year that ASHAs were assigned to the three villages and the *de facto* start of JSY in those villages, only 13% took place at the hospital. Table 1 shows that in contrast to the high rates of home birth prior to JSY, only three of the 20 births studied for this project in 2012 took place at home.

Qualitative evidence also supports the idea that, in this sample of women, the JSY cash incentive motivated hospital deliveries. In later interviews, participants spoke openly about this; an upper caste woman, who had delivered her youngest daughter in the government maternity hospital after three home births, said, "people are running after those 1400 rupees." One of the women who gave birth at home regretted that her labor progressed too quickly to go to the hospital. Her mother-in-law was annoyed that they would not receive the 1400 rupee payment and said that the village health worker—called an Accredited Social Health Activist (ASHA)—was upset with them for not leaving early enough for the hospital. To put the value of the intended transfer into context, the Planning Commission of the Government of India reported the average monthly per capita expenditure for rural Uttar Pradesh in 2011–2012 to be 1073 rupees (Planning Commission, 2013).

In addition to low pre-program rates of hospital delivery, there are several other reasons why women from the study villages may be more likely to change their behavior as a result of the JSY program than women in other parts of India. First, villages' proximity to the government maternity hospital means that pregnant women rarely have to pay for transportation to the hospital. Women in the study villages were able to get to the hospital in carts pulled by bicycles, on family members' motorcycles, or in cycle rickshaws. In contrast, a survey done by the UNFPA found that women in Uttar Pradesh who delivered in health facilities paid on average 294 rupees, or about $6, in transportation costs to reach the facility (UNFPA, 2008).

Second, the hospital studied, unlike smaller public health facilities that give JSY transfers, is a women's hospital which serves

[1] The district that was studied was more disadvantaged than the state as a whole. The 2011 census reported a district female literacy rate of 42%, compared to the state's 59%, a scheduled caste population of 32%, compared to the state's 21%, and an electrification rate of 13%, compared to the state's 37%.

[2] The Government of India's Annual Health Survey of 2011 found that 47% of births in that year took place in an institution.