Janani Suraksha Yojana: the conditional cash transfer scheme to reduce maternal mortality in India – a need for reassessment
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Alongside endorsing Millennium Development Goal 5 in 2000, India launched its National Population Policy in 2000 and the National Health Policy in 2002. However, these have failed thus far to reduce the maternal mortality ratio (MMR) by the targeted 5.5% per annum. Under the banner of the National Rural Health Mission, the Government of India launched a national conditional cash transfer (CCT) scheme in 2005 called Janani Suraksha Yojana (JSY), aimed to encourage women to give birth in health facilities which, in turn, should reduce maternal deaths. Poor prenatal care in general, and postnatal care in particular, could be considered the causes of the high number of maternal deaths in India (the highest in the world). Undoubtedly, institutional delivery in India has increased and MMR has reduced over time as a result of socioeconomic development coupled with advancement in health care including improved women’s education, awareness and availability of health services. However, in the light of its performance, we argue that the JSY scheme was not well enough designed to be considered as an effective pathway to reduce MMR. We propose that the service-based CCT is not the solution to avoid/reduce maternal deaths and that policy-makers and programme managers should reconsider the ‘package’ of continuum of care and maternal health services to ensure that they start from adolescence and the pre-pregnancy period, and extend to delivery, postnatal and continued maternal health care.

Key words: Maternal Mortality ratio, continuum of care, cash incentive.

Background
The high incidence of maternal deaths, especially in developing countries, has been of growing concern to programme managers and policy-makers. To reduce maternal deaths, global leaders promised to extend every possible effort in a series of protocols, starting from the Safe Motherhood Initiative in 1987, followed by the International Conference on Population and Development in 1994. The Millennium Development Goals (MDGs) in 2000, endorsed by leaders from 190 countries, re-emphasized the importance of improving maternal health in MDG5, and set a target of a 75% reduction in the maternal mortality ratio (MMR) from 1990 by 2015.\textsuperscript{1} India is a signatory to the MDGs and managed to reduce the MMR by 66%, that is, from an estimated 600 to 200 maternal deaths per 100 000 live births, which is an average annual decrease of 5.2% during the period 1990–2010.\textsuperscript{2} Despite this turning

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point, the MMR is still incongruously high and fails to meet MDG5.

India launched its National Population Policy (NPP) in 2000 and the National Health Policy (NHP) in 2002. The NPP set ambitious goals to be achieved by 2010, including reducing the MMR to 100 per 100,000 live births. The NHP reiterated its commitment to achieving this goal and to increase institutional deliveries to 80%. The failure of the NPP and the NHP to reduce the MMR pointed to the need for health policies and programmes to be given a new direction, and this lead to the establishment of the National Rural Health Mission (NRHM) in 2005. Under the broad ambit of NRHM, the Government of India launched a broad conditional cash transfer scheme called Janani Suraksha Yojana (JSY) in April 2005, to encourage women of low socioeconomic status to give birth in health facilities. This, in turn, was intended to help reduce the MMR.

The scheme was guided by the previous National Maternity Benefit Scheme, under which a provision was made for the payment of Rs 500 (US$ 9.41) per pregnancy to women from poor households for prenatal and postnatal maternity care up to the first two live births. In the 10 focus states (Assam, Bihar, Chhattisgarh, Jammu and Kashmir, Jharkhand, Madhya Pradesh, Orissa, Rajasthan, Uttarakhand, and Uttar Pradesh), the JSY promised cash incentives to a woman if the delivery was conducted in a government or accredited private health facility. According to JSY’s guidelines, after delivery in one of these facilities, the eligible woman would receive Rs 600 (US$ 11.30) in urban areas and Rs 700 (US$ 13.18) in rural areas. The cash incentive was higher in the 10 focus states – Rs 1000 (US$ 18.83) in urban areas and Rs 1400 (US$ 26.36) in rural areas. In the non-focus states, women were eligible for the cash benefit for their first two livebirths, and if they had a government-issued below-the-poverty-line card or were from a Scheduled (low) Caste or Tribe. Against this background, we argue that the purpose of JSY was not well designed and that it cannot be considered as an effective pathway to reduce maternal deaths. We have proposed an alternative way forward to reduce maternal mortality.

Causes of maternal mortality: where JSY stands

Among the direct causes of maternal deaths in India, haemorrhage is the leading cause (38%), followed by sepsis (11%), hypertensive disorders (5%), obstructed labour (5%), abortion (8%), and other conditions (33%). The conceptual framework of delays proposed by Thaddeus and Maine focuses on socioeconomic/cultural factors (women’s status in household and society, educational and economic status of women, etc.), access to facilities (distance, transportation, etc.) and availability of quality of care (staff and equipment in health centre) as the crucial factors behind maternal morbidity and mortality. However, this model was debated because of its oversimplification of each level of care.

Haemorrhage remains one of the top three preventable obstetrics-related causes of maternal mortality worldwide, with most deaths occurring within 24–48 hours of delivery. Indeed, in 2010 the World Health Organization estimated that 77% of maternal deaths in developing countries occurred within two days of delivery. The latest nationally representative District Level Household and Facility Survey 2007–2008 (DLHS-3) revealed that in India, where most maternal deaths occur due to postpartum haemorrhage (PPH), around 48% of women aged 15–49 years reported receiving postnatal care within 48 hours of delivery. Maternal death
due to PPH is preventable through risk factor identification, rapid diagnosis and timely management of postnatal care; therefore, poor performance in postnatal care in India remains a daunting challenge for programme managers and policy-makers.

On the other hand, as per the estimates from DLHS-3, almost 50% of women aged 15–49 years had at least three antenatal care visits; the lowest performance was 22% in Uttar Pradesh. Only 47% of women reported that they underwent institutional delivery, and only 13% of eligible women had received JSY assistance. The experiment of introducing incentives for physicians to perform delivery to reduce maternal mortality was deemed fruitless. For instance, the Government of Gujarat (western India) launched a public–private partnership scheme called ‘Chiranjeevi Yojana’ or “plan for a long life” to bridge the gap in the availability of quality maternal health-care services for below-the-poverty-line families in rural areas by collaborating with private practitioners in small towns. The state government paid private gynaecologists Rs 1795 (US$ 33.75) per delivery – including Rs 200 (US$ 3.76) to the patient for transportation costs to the place of delivery and Rs 50 (US$ 0.94) to the person accompanying the patient to compensate for loss of wages. But, contrary to expectation, there was no an appreciable progress in the overall reduction of MMR in Gujarat in 2004–2006 (160/100 000 live births) or 2007–2009 (148/100 000 live births). In contrast, the reduction was more impressive in Uttarakhand/Uttar Pradesh, and even in Bihar/Jharkhand, which are recognized as underdeveloped states.

The argument for this is that the promotion of institutional delivery through JSY is not the only way to reduce maternal deaths. According to 2010 estimates, only 19% women received full antenatal care (at least three visits for antenatal check-up, one tetanus toxoid injection and 100+ iron folate acid tablets/syrup), indicating the possibility of poor demand or and provision of antenatal care. In addition, 26% of women aged 15–49 did not undergo any antenatal care, and almost half (48%) of the eligible women did not receive safe delivery care (either institutional delivery or home delivery assisted by skilled person). Moreover, while 37% women experienced post-delivery complications, nearly 45% of them did not seek any post-delivery treatment at national level. The reported post-delivery complications were nearly 50% in states such as Bihar, Jharkhand, and Uttar Pradesh.

The way forward

The statistics documented above lead us to believe that incentives attached to institutional delivery are insufficient to defer maternal deaths. In the last few years, there has been a gradual decline in the country’s MMR overall. This has been the outcome of efforts to reduce delays in seeking medical help, timely use of medical facilities and provision of adequate care. Moreover, behavioural factors such as improved women’s education, as well as mass media exposure, awareness and use of health services, availability of, and access to health facilities, are some of the key factors that have led to increased maternal health-care use. In addition, it is clear that institutional delivery has increased due to JSY. However, what should be prioritized to help attain MDG5? We propose a two-fold approach.

First, the priority areas of the maternal health-care programme should be reoriented to postnatal care. The proposition of offering a cash incentive, especially within 48 hours
of delivery, needs to be evaluated and the effectiveness of the programme checked on a pilot basis. Delivery in an institution must be encouraged as well as supervision by qualified physicians as long as is necessary, i.e. the programme should not be limited to discharging women automatically from the institution within 48 hours of delivery. Clearly, this needs physical facilities and human resources to enhance the currently overburdened public health infrastructure.

Second, the focus should be on the continuum of maternal health care as well as on "packages", which include integrated services for potential mothers from adolescence and pre-pregnancy period to delivery and immediate postnatal and maternal health care. Such care is provided by families and communities through outpatient services, clinics and other health facilities. As far as the package is concerned, a recent review of ongoing research has proposed packages of care for delivery at the community, health-centre or hospital level, where the package of maternal care includes:

- general supportive care (cessation of smoking during pregnancy, prevention of intimate partner violence, prevention of maternal drug abuse during pregnancy, recognition and treatment of postnatal depression, and family planning);
- maternal nutritional (supplementation of multiple micronutrients, balanced protein energy, periconceptual folic acid and iron-folic acid during pregnancy, and calcium supplementation in pregnant women with low/inadequate intake);
- improved quality of basic antenatal care (at least four visits of focused antenatal care, screening and management of sexually transmitted infections and prevention and management of malaria in pregnancy);
- expanded antenatal care (treatment and management of maternal diabetes, management of HIV, anti-platelet agents in high-risk pregnancies, antihypertensives for mild to moderate hypertension during pregnancy, magnesium sulphate for treatment of pregnancy-induced hypertension/eclampsia, influenza and pneumococcal vaccination);
- community-based interventions (emergency transport funds, cash transfers, supportive care during childbirth, etc.);
- childbirth care (basic obstetrics, emergency obstetrics [lower segment caesarean section, active induction of post-term pregnancy], treatment of pre-term pre-labour rupture of membranes, training traditional birth attendants in clean delivery and referral);
- postnatal care (birth spacing/family planning, postnatal visits).

It is encouraging that the High Level Expert Group Report on Universal Health Coverage for India, instituted by the Planning Commission, Government of India, suggested that the ‘National Health Package’ cover essential health at primary, secondary, as well as tertiary level care for all citizens of India by 2022. Here, it is imperative to suggest a comprehensive “package” for maternal healthcare that follows a continuum of care to avert maternal deaths in India. The role of the NRHM in promoting such a comprehensive package cannot be underestimated. Since its launch in 2005, it has provided the key strategy to India’s current public health system, has influenced the development of new guidelines to strengthening prenatal, natal and postnatal service delivery, and promoted the extended use of available health infrastructure, particularly human resources, at facility and non-facility levels. As far as the facility level is concerned, mandatory
counselling on the benefits of postnatal care could help in raising awareness on post-delivery health. However, non-facility initiatives under NRHM could reach eligible women through community health workers to provide appropriate counselling to women and other household members, particularly husbands, on the importance of postnatal care and on the adverse consequences of ignoring postnatal health check-ups.

Although the continuum of care has recently been highlighted as central for reproductive, maternal, newborn, and child health (RMNCH), and a means to reduce the burden of maternal and child deaths globally, the main barrier to increased coverage of the integrated package in most developing countries is inadequate operational management, especially at district and community level. Since the concept of continuum of care in RMNCH is quite recent, there is little evidence of its effective integration in more global programmes.

**Neighbour initiatives**

Two recent initiatives from Ethiopia (Health Service Extension Package) and Mexico (Seguro Popular Program) could be helpful for policy-makers and programme managers in India to initiate an integrated RMNCH approach. In 2003, the Government of Ethiopia and its partners analysed selected maternal and child health interventions and the country’s Health Sector Development Programme. The results of the analysis indicated the need to shift from a facility-based model to an approach that extended access to basic health services to communities. In response, the Government of Ethiopia developed a new Health Service Extension Package (HSEP), which posted two female health workers in every community, supported by health centres and several thousand new medical officers. During the following year, the Child Survival Partnership expanded its focus to include maternal and newborn health strategies, with newborns serving as a bridge between child and maternal health interventions and strategies. Since 2004, Ethiopia has developed an in-country coordination process, RMNCH survival strategies, and has incorporated these strategies into its major policy initiatives, like the Poverty Reduction Strategy Programme.

Likewise in Mexico, a national health insurance programme called Seguro Popular, introduced in 2003, provides access to a package of comprehensive health services with financial protection for more than 50 million people previously excluded from insurance. Since its inception, there is evidence that Seguro Popular has improved access to health services and reduced the prevalence of catastrophic and impoverishing health expenditure, especially for the poor. The reduction of maternal and child deaths, and coverage of maternal and child healthcare services, have been pragmatic during the past few years. These efforts can be adapted and translated for countries seeking to provide universal coverage against threats to the health security of individuals and populations. Learning from this experience – its successes and its challenges – will not only help to improve health conditions and financial protection for all people in Mexico, but will contribute to the global movement towards universal health coverage.

**Conclusions and recommendations**

Given our analysis of the institutional delivery of cash through JSY, it is proposed to rethink the cash incentive system to reduce maternal mortality and reconsider maternal health care as a continuum of care. According to the budgetary provision in the Twelfth Five Year Plan, the Government of India allocated...
nearly 2% of its Gross Domestic Product to healthcare. Some of this could be used to design an effective package of maternal care. Reduction in maternal mortality and associated issues should be high on the political agenda, especially of a developing country like India as a clearly rising power in the global economic situation.

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