REPRODUCTIVE HEALTH matters

Registration and monitoring of pregnant women in Tamil Nadu, India: a critique

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Abstract: *In 2008 a pregnancy registration system was introduced in rural Tamil Nadu, India, which is now being scaled up. It will collect data on antenatal, delivery and post-partum care in pregnant women and infant health. This is seen as an important public health intervention, justified for its potential to ensure efficiency in provision and use of maternity services. However, from another perspective, it can be seen as a form of control over women, reducing the experience of safe pregnancy and delivery to a few measurable variables. The burden of implementing this task falls on Village Health Nurses, who are also women, reducing their time for interacting with and educating people and visiting communities, which is their primary task and the basis on which they are evaluated. In addition, they face logistical constraints in rural settings that may affect the quality of data. In a health system with rigid internal hierarchies and power differentials, this system may become more of a supervisory and monitoring tool than a tool for a learning health system. It may also lead to a victim-blaming approach ("you missed two antenatal visits") rather than health system learning to improve maternal and infant health. The paper concludes by recommending ways to use the system and the data to tackle the broader social determinants of health, with women, health workers and communities as partners in the process.*

Keywords: health information systems, registration of pregnancy, maternity services, maternal and infant health, Tamil Nadu, India

Recently there have been a number of press reports in the state of Tamil Nadu in India announcing a new registration system for pregnant women and infants, called the Pregnancy and Infant Cohort Monitoring and Evaluation (PICME) system.[1,2] This system was first introduced in Tamil Nadu in April 2008 in all rural areas and now in 2012 also in urban areas (Personal communication 2012).*

Tamil Nadu is held up worldwide as a model and a success story for having reduced maternal mortality from 450 deaths per 100,000 live births in 1980 to 90 per 100,000 in 2006.[3] The documented reasons for this remarkable decline include consistent political commitment, not changing senior policy makers and officials too often and thus maintaining continuity in policy and programme management, innovative schemes such as maternal death audits, and institutional and managerial health system strengthening.[3,4]

Given the fact that the state is among the few in India with a specialized public health cadre in charge of primary and first referral level of health care, the health system has given a lot of importance to information. As early as 1998, the state implemented a DANIDA-funded Institutional Service Monitoring Report, which evolved into an effective monitoring mechanism.[5] Similarly, there was a lot of emphasis on early registration of pregnancies with the Village Health Nurse, with the

*In preparing this paper, I met three senior officials in Tamil Nadu and asked for their opinions, which are cited here as personal communications. They are not named to protect confidentiality. The rest of my observations were formed during regular visits to a number of rural areas as part of a project on community monitoring and planning for health, which I manage. I made specific inquiries about this new scheme on occasion, but mostly it was discussed spontaneously in meetings, for which I have field notes. Thus, my analysis and understanding of the issues was informed mostly by what I observed and heard in the field.

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emphasis on registering by the third month.[3] This was meant to allow the Village Health Nurse to plan her work according to the number of registered antenatal women (among other things). This system, while helping the Village Health Nurse at the local level, was described in a 2008 report by the Directorate of Public Health and Preventive Medicine as having "certain inadequacies",[6] including poor linkage with service delivery, due to the various data collected being held and maintained in separate registers, poor reporting of outcomes and under-reporting of infant deaths.[6]

"To address this issue, the Directorate has designed a pregnancy and infant cohort monitoring system, designed for the Village Health Nurses to record details of the pregnant mother and the infant in a single line, starting from the date of antenatal registration till the first birthday of the baby."[6]

Thus, PICME was developed by the National Informatics Centre for the state's Department of Public Health and Preventive Medicine, with support from several officials who championed it. The system consists of four modules for the pregnancy cohort and five modules for the infant cohort. The main information captured includes:

- Pregnant women – general demographics; antenatal check-ups and scans; antenatal referral and delivery; and post-partum details.
- Infants – general; referral; immunization; growth monitoring; infant death.[7]

The collection of data is intended to lead to three broad outputs:

- a database that contains information on the kinds and extent of pregnancy-related risk factors among currently pregnant women;
- routine generation of reports with the particulars of individual women who need to be followed up, such as women with high risk factors, estimated dates of delivery, and need for immunization;
- use of the reports to help peripheral health workers keep track of their catchment population and potentially generate automatic SMS texts, e.g. to remind pregnant women of the need to utilize appropriate services during the antenatal period and for delivery and the post-partum period.[6,7]

The unique PICME identification numbers generated by this system for each registered woman will be used to link this database with another dealing with eligibility for the Maternity Benefit Scheme. The Maternity Benefit Scheme provides pregnant women with a total of Rs 12,000 (≈US$228) in three tranches – one after they avail of all "required health services", one after delivery in a government institution, and one after a live birth after the infant has completed the full immunization schedule. No one will be able to get the maternity benefit unless they are registered in the PICME system.[8]

The introduction of PICME is happening at the same time as the Government of India is launching a national level Mother–Child Tracking System (MCTS), developed by the Health Ministry.[9] The Government has also just launched a Unique Identification scheme under the aegis of the Unique Identification Authority of India (UIDAI), in which every person has a Unique Identification card.[10] The card is to be used among other things for access to public health services as one of its key uses.[11]

Similarly, a High Level Expert Group on Universal Health Coverage (HLEG), instituted by the Planning Commission of India, has also suggested a biometric identification card, based on a unique physical characteristic such as fingerprints or iris patterns, to ensure access to all *"so people can realize their right to health"* as well as ensure "portability" of health care across the country.[12]

It thus seems that both the use of information technology (IT) and the creation of databases with large amounts of information are seen as important public health interventions. Their use is being justified due to their potential to gather large amounts of information and ensure efficiency, and thus contribute to improving health status.

By introducing an IT-based system for monitoring a huge data set at the state level, as compared to the earlier decentralized registers, the PICME system introduces a significantly different situation from the past. However, while more information and more accurate information can certainly help in better planning and delivery of services, and indeed is a crying need in many health systems, there are a number of concerns being raised. Not only are data now available in "real time" at the state level, but also, given that they are the door to the Maternity Benefit Scheme, the system introduces the possibility of pressure on pregnant women as well as significant pressures on peripheral health workers.

The rest of this paper describes how information management systems can lead to distortions in the way the health system sees women, recognizes their concerns and responds to their lived