

## India: Improving Child and Maternal Health in Tamil Nadu



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#### Overview

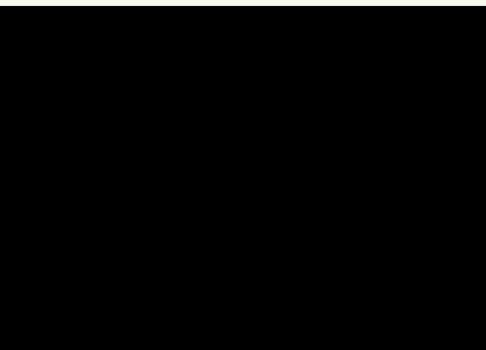
While Tamil Nadu ranked among the best states in India in terms of human development, it needed to reduce its infant and maternal mortality rates, especially among disadvantaged communities and in lagging regions. The Tamil Nadu Health Systems Project extended secondary health services in the rural areas through the establishment of 80 Comprehensive Emergency Obstetrics and Neonatal Centers (CEmONCs) and 385 ambulances. Rural women in the state of Tamil Nadu in India can now reach a comprehensive emergency obstetric and neonatal health facility within a half an hour from their homes.

#### Challenge

While Tamil Nadu's infant mortality rate (IMR) had declined from the early 1990s, in part due to the state's success in immunization of young children, these rates were stagnating, and maternal mortality continued to be high. With four out of five infant deaths taking place among newborns - within the first 28 days of life - the high mortality among mothers and babies indicated that the quality of care in the state's secondary level health facilities was poor, especially since almost 80 percent of births took place in these facilities. Tamil Nadu had less than one comprehensive emergency obstetric and neonatal care (CEmONC) per million people, while the World Health Organization recommends one such center for at least 250,000 people.

A maternal death review showed that there were three kinds of delays that prevented pregnant rural women from receiving timely treatment: family level, transport to a suitable medical facility, and care at the facility. The state was unable to improve the quality of secondary-level health care or make these services more widely available in lagging regions and among disadvantaged communities, especially tribal communities, because its hospitals had been under-funded for decades. Tamil Nadu's health spending had fallen from 7.5 percent of the state budget in the mid-1980s to 5.8 percent in 2001. With three quarters of the state's health expenditures being allocated for salaries, and central government funding focused on primary care programs, little

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More Results



**35%**

decrease seen in the infant mortality rate

funding remained for investment in the equipment, materials and infrastructure needed for the provision of a minimum level of secondary medical care. Moreover, existing facilities suffered from staff shortages and an inappropriate skill mix.

80

Comprehensive Emergency  
Obstetrics and Neonatal Centers  
constructed

## Approach

- Sensitizing communities: Pregnant women and their family members were sensitized about the advantages of institutional delivery, the need for regular antenatal checkups and early admission in case of emergency.
- Emergency transportation: The National Rural Health Mission's ambulance service was geared up to take a woman in complicated labor anywhere in the state to the nearest CEmONC center, within half an hour of her call. The ambulances were manned by trained technicians who informed the center of the case details, blood group etc. to ensure immediate care upon arrival.
- Extending and improving secondary level care: At least two hospitals in each district were fully equipped to function as Comprehensive Emergency Obstetrics and Neonatal Centers (CEmONCs) that were open 24 hours a day and fully staffed.
- Reaching vulnerable communities: A concerted effort was made to establish CEmONC centers near isolated and vulnerable communities. Private public partnerships also provided screening for sickle cell anemia, counseling of patients, and a bed grant scheme offering inpatient care to tribal populations.

### MORE INFORMATION

- » Reducing Infant and Maternal Mortality in Tamil Nadu
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- » India at a Health Crossroads
- » Economic Update

## Results

- The state has successfully extended secondary health services in the rural areas through the establishment of 80 Comprehensive Emergency Obstetrics and Neonatal Centers (CEmONCs) and 385 ambulances, leading to improved access and quality of care for expectant mothers and infants. The number of scheduled caste and scheduled tribe women availing of ambulance services and opting for institutional delivery has also risen significantly. More than 99.5 percent of deliveries in the state now take place in medical institutions. Tamil Nadu will soon have one CEmONC center for every 500,000 people.
- The Infant Mortality Rate (IMR) has reduced by 35 percent - from 48 deaths per 1,000 live births in 1998-99 (National Family Health Survey - NFHS-2) to 31 deaths per 1,000 live births in 2006 in the most recent survey (NFHS-3).
- The state's Maternal Mortality Ratio (MMR) has also decreased - from 167 deaths per 100,000 live births in 1999 to 111 deaths per 100,000 live births in 2006.
- A computerized Hospital Management System (HMS) that streamlines hospital management by automating processes, including the online entry of diagnosis and prescription as well as the maintenance of drug inventory in pharmacies is operational at 41 secondary level hospitals across five districts. This will now be extended to all 270 secondary hospitals in the state, as well as to 18 medical colleges.

## Voices

“My daughter was born in this hospital; they're doing a better job now than before. This is my grandson, he was born here, and we're not going anywhere else because they're taking care of us

very well.”

— *Manoharmani*

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## Partners

The project reflects the Government of Tamil Nadu's (GOTN) 2003 Health Policy, which aimed to make major improvements in the health status of the provincial population, with a special emphasis on maternal and child health, non-communicable diseases, providing services to the poor, and engaging the private sector through public-private partnerships to enable more effective provision of care. These reforms, supported by the project, were also meant to provide a demonstration effect for other states in India. The GOTN contributed US\$20.76 million to the total project cost.

## Toward the Future

While Tamil Nadu has made considerable progress in reducing its infant and maternal mortality rates, the state's MMR continues to be 25 times higher than in developed countries. Further improvements in the quality of emergency obstetric and neonatal care will also be needed to bring the state's IMR closer to its better-performing neighbors such as the Indian state of Kerala (IMR is 14/1,000) and Sri Lanka (IMR 18.8/1,000).