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Maternal Mortality Perspective: A Success Story of Maharashtra

Maternal health is one of the priority areas for the Public Health Department of the state of Maharashtra to improve women's health status and further reduce preventable maternal deaths. Maharashtra is a progressive state. It is the third-largest state in terms of area and the second-largest by population. As per the census 2011, the state population is 11.24 crore.^[1] Considering the growing urban population, presently, the urban population might have reached 50%.

Vital indicators of the state are showing an improving trend over the years. As per the Sample Registration System (SR) 2020 the crude birth rate of Maharashtra was 15/1000 population, crude death rate was 5.5/1000 population, and infant mortality rate (IMR) is 16/1000 live births. The total fertility rate is showing remarkable improvement; currently, it has reached 1.6.^[2]

Health service infrastructure in Maharashtra has the well-known three-tier system. There is a good network of health facilities from the village level to the district level comprising sub-centers (SC) at the village level and hospitals at the district and subdistricts. In addition, the state has 63 medical colleges for specialty services at the tertiary level.^[3] With the help of this well-developed health infrastructure, maternal health services are being provided from the village level by trained and dedicated auxiliary nurse midwife to the hospital level by medical officers and specialists.

The state performs better in process indicators such as antenatal care registration, early registration, iron supplementation, and a minimum of four check-ups. Similarly, outcome or impact indicator like maternal mortality ratio (MMR) has shown remarkable achievement, as the state is second in rank next to Kerala. The sustainable development goal for MMR is already achieved, and as per the latest report special bulletin on maternal mortality in India (2017–19) the MMR of the state is 38/1 lakh live births.^[4] Although it is showing a significant declining trend, the state is trying hard to reduce it further. Considering the currently achieved low levels of maternal deaths, further speedy decline in MMR will be challenging to reduce it further. Therefore, different approaches must be adopted by the state.

Analysis of the data on maternal deaths reveals that common causes of maternal death are hypertensive disorders in pregnancy/eclampsia followed by hemorrhage (antepartum hemorrhage/postpartum hemorrhage [PPH]). Severe anemia, ruptured uterus, heart disease, and hepatitis are also some of the causes of death. For the year 2021–2022, acute respiratory distress syndrome is an important cause of maternal death

due to COVID-19 pandemic. When these causes of death are analyzed over time, the declining trend can be attributed to the reduction in the number of deaths due to hemorrhage and sepsis.

However, there is not much change in the proportion of deaths due to hypertensive disorders; therefore, the state is trying various strategies for the same.

Maharashtra state has various challenges in providing universal maternal health care. Nearly 50% of the population resides in urban areas with no uniform health infrastructure. There are 16 tribal districts, and about 10% population is in the tribal area. The state has 16% of villages with a population <500, making it challenging to provide health services to this scattered population in small villages. In addition to the municipal corporation area, there are Nagar-Palika and Nagar-panchayats, where health infrastructure is a major issue. Although the National Urban Health Mission health infrastructure is improved, it covers an urban area with more than 50,000 populations, and therefore providing health care in the remaining urban areas is a major challenge. Responding to rising expectations for high-quality care is another concern due to greater access to the information to the population, especially women.

The private sector is also an important service provider in the state for which a robust legal framework for monitoring does not exist. On the continuum of maternal health care, too extreme situations exist. One is too little too late, and another is too much too soon.^[5] Therefore, planning and providing the right amount of care at the right time, which is of good quality, is challenging.

EFFORTS BY MAHARASHTRA STATE TO REDUCE MATERNAL MORTALITY

Based on the analysis of the data, the state has tried to make concerted efforts to improve in the following areas:

1. Quality of health care
2. Equity in health care
3. Health systems strengthening
4. Financing
5. Better evidence.

Quality of health care

The state has planned for good quality, evidence-based maternal health services with respectful maternal care as a guiding principle. Emphasis is given to the continuum of care and prevention. Under preventive services, family planning

services are at the forefront, and also attention is being given to providing abortion services at the primary and secondary levels. The state started with a preconception care project at the village level, bringing adolescents into the mainstream and prioritizing anemia prevention/correction, Body mass index monitoring, and nutritional and nonnutritional counseling for married and unmarried adolescents.^[6]

Important quality programs implemented are LaQshya, SUMAN, LaQshya-Manyata. LaQshya program aims to improve intrapartum and immediate postpartum care quality to reduce preventable maternal and newborn mortality, morbidity, and stillbirths.

The initiative started in government as well as the private sector. The focus is on labor room and maternity operation theatre National Quality Assurance Standards certification. Satisfaction of beneficiaries is one of the critical aspects of LaQshya program. Of 525 departments, 346 are state certified and 140 nationally certified, with the highest coverage in the country. We developed LaQshya standard operating procedures and modules according to the state's needs to achieve the targets. Various steps were taken such as forming a facility quality circle, baseline assessment, gap identification, interventions as per identified gaps, peer assessment, state assessment, and national certification. A dedicated cell established at the state level was monitoring all the health facilities closely.

LaQshya-Manyata program is a state initiative for private sector quality improvement involving The Federation of Obstetric and Gynecological Societies of India (FOGSI). This was needed as about 45% of deliveries occur in private facilities. For the private sector, clinical and facility standards were developed involving senior professors from medical colleges and private gynecologists. Inspection and certification are jointly made by government and private experts. For capacity building of private sector staff, skill enhancement centers were established with the help of FOGSI; 375 private maternity hospitals were registered, and out of that 260 were jointly certified. This program helps improve in providing comprehensive reproductive, maternal, newborn child plus adolescent health services, a patient-friendly environment, use of treatment protocols, and keeping patient records. In addition, the SUMAN quality initiative started covering primary health centers (PHCs) and hospitals to achieve “zero” preventable infant mortality.

Equity in health care

This includes universal health coverage emphasizing maternal health services that reach every woman, every newborn, everywhere with good quality and without causing financial hardship and pushing families into poverty.

Under this initiative, comprehensive services are being provided, which also includes the “Free Medicine” and “Free Diagnostics” initiatives. The state has prepared an essential drug list, and accordingly, critical medicines are provided

free to all patients. In addition, under the “Free diagnostics” initiative, laboratory services are outsourced, providing 14 laboratory investigations at SC, 29 at PHCs, 40 at community health center (CHC), and 37 at the district hospital level, along with 12 special tests. Similarly, radiology services are outsourced. All pregnant women were provided with free sonography, either in-house or outsourcing services, through the private sector. All these initiatives helped to reduce out-of-pocket expenses. This has also been mentioned in the National Family Health Survey-5 report.^[7]

Health systems strengthening

This encompasses strengthening entire health systems, including data and surveillance, facility capability, and skilled health workforce, considering the scarce human resources (HRs) state has done delivery point mapping based on population norms and time to care approach. As per the level decided, delivery points were categorized as L1, L2, and L3. For each level delivery point, services expected and norms for HR, equipment, and training are defined. Accordingly, these institutes are supported for HR, equipment, physical infrastructure, and training.

Among the above-identified delivery points, 268 were designated as First Referral Units (FRU). Making FRU fully functional is a big challenge, and therefore, special HR policy is adopted by the state. Flexibility is provided for working hours, service delivery, and remuneration of specialists to be appointed at the FRU level. For very difficult, tribal, Naxalite areas, more flexibility was given, and decision-making was decentralized considering local conditions. Blood banks or blood storage centers were made operational at each center.

The labor room strengthening program was implemented all over the state by providing uniform standardized guidelines and protocols.^[8] All labor rooms have PPH boxes and eclampsia kits so that in case of emergency and complications, primary treatment can be started immediately, even by nursing staff. Uterine balloon tamponed and comprehensive PPH management training is provided to staff. The state has begun midwifery strengthening services with a new approach. It emphasizes the midwifery model of care for normal births in midwifery led units. This is considered a cost-effective and efficient model to provide quality care and reduce over-medicalization.

Financing

Sustainable financing for maternal health is necessary for maintaining maternal health gains and accelerating progress. Accordingly, the budget is mobilized from various sources like the central government and the state budget. Under National Health Mission for multiple activities, about 300 crore. The budget is approved. Similarly, the women and child development department provides about 100 crore. Annually, there are also state-specific schemes under which budgetary provision is made available. Under the 13th Finance Commission, a one-time provision is made available to improve basic infrastructure in the labor room. Care is taken

by the state to make the budget available from various sources so that comprehensive maternal health services can be provided to every beneficiary.

Better evidence

Local evidence from routine audits and Health Management Information System (HMIS) is used to improve the quality of care, and also, based on this, the burden of poor maternal health is also assessed. In Maharashtra, every maternal death is reported and reviewed so that weaknesses in the system can be identified and actions for improvement can be taken.

HMIS data are used for identifying low-performing blocks and also high IMR and MMR blocks. Detailed reviews and monitoring from the state level are being done so that these blocks improve in various process indicators and outcome indicators. Similarly, operational research is undertaken on the issues or programs being implemented by the health department which are critically important and need improvement.

The findings of these are used to take corrective actions.

In the program implementation plan, various activities are proposed, and accordingly, the state is establishing a maternal child health wing in high-case load facilities. Similarly, to provide emergency obstetric care, hybrid high dependency units/intensive care units are being made functional.

Infrastructure in urban areas is another area of concern for which urban PHCs/urban CHCs are being established as per norm, and provision of HR based on population norms in urban areas is being made.

In addition, the state is trying to use technology so that health services can reach every woman. All these efforts and interventions are helpful for reducing preventable mortality as well as improving the health status of women in the state. Thus, assuring respectful maternity care is our collective responsibility, and we can make it possible.

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