Journal of Indian Academy of Obstetrics and Gynaecology January 2022

Vol. 3, Issue 2

Original Article

REVISIT INTO THE MATERNAL MORTALITY OF MEGHALAYA WITH SPECIAL REFERENCE TO MATERNAL MORTALITY IN A TERTIARY HEALTH CARE FROM 2017-2021

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ABSTRACT

Maternal health is becoming a global concern because the lives of millions of women in reproductive age can be saved through maternal health care services. Despite efforts that have been made to strengthen maternal health care services, maternal mortality is still high in most of the developing countries. Meghalaya is the least performing in the North Eastern States of India in state level analysis of maternal mortality according to District Reports from National Health Mission and Report 2014-15 of the Statistics Division, Ministry of Health & Family Welfare, Govt. of India. Maternal Mortality Rate is alarmingly high with Meghalaya registering 197 deaths per 1,00,000 deliveries. We reviewed our hospital statistics of maternal mortality for last 5 years 2017-21 and got MMR of around 396/100000 live births. The Meghalaya Maternal and Child Health Policy aims to achieve its objectives as per guidelines of WHO's Sustainable Development Goals (SDGs) timeline of 2030 and the NHP, 2017.

KEY WORDS: Maternal Death, Antenatal Care, AAA Convergence, PMSMA

INTRODUCTION

Maternal health is the health of women during pregnancy, childbirth and the postpartum period and maternal health care services are antenatal care (ANC), delivery care and postnatal care (PNC) services. Maternal health is becoming a global concern because the lives of millions of women in reproductive age can be saved through maternal health care services. Despite efforts that have been made to strengthen maternal health care services, maternal mortality is still high in most of the developing countries. With the above background, we decided to conduct a review of maternal mortality in this region with special reference to our hospital statistics.

PRESENT CONDITION OF HEALTH SYSTEM IN MEGHALAYA

The large number of maternal mortalities, especially in developing countries has been due to low level of maternal health care seeking behavior. Generally, the factors associated with utilization of maternal health services can be categorized as socio-economic and demographic factors such as; educational status of the mother, maternal age, occupation, mothers' knowledge of danger signs, marital status, women's autonomy, birth order, religion, sex of household head, household income, household size, husband's educational status, accessibility factors and factors related with women's perceived quality of maternal health care

services. Meghalaya is the least performing in the North Eastern States of India in state level analysis of maternal mortality according to District Reports from National Health Mission and Report 2014-15 of the Statistics Division, Ministry of Health & Family Welfare (MoHFW), Govt. of India. According to National Family Health Survey 4 (NFHS 4) only 50% mothers had at least 4 antenatal visits, 47.5% received post-natal care and 51.4% had institutional births. [1]
Maternal Mortality Ratio (MMR) of India for the period 2016-18, as per the latest report of the national Sample Registration system (SRS) data is 113/100,000 live births, declining by 17 points, from 130/ 100,000 live births in 2014-16. Maternal Mortality Rate is alarmingly high with Meghalaya registering 197 deaths per 1,00,000 deliveries. [1] The policy aims to achieve its objectives as per guidelines of World Health Organization (WHO)'s Sustainable Development Goals (SDGs) timeline of 2030 and the National Health Portal (NHP), 2017. This would pertain to the State's major health concerns namely decreasing maternal and infant mortality rates by ensuring antenatal care coverage to be sustained above 90% and skilled attendance at birth above 90% by 2025, reducing Under Five Mortality to 23 by 2025 and MMR from current levels to 100 by 2025. The policy will also aim to reduce Infant Mortality Rate to 28 by 2025 and reduce neo-natal mortality to 16 and still birth rate to "single digit" by 2025.Maternal and Infant Mortality Rates are of great concern to the State with 197 MMR (Sample Registration System (SRS), 2016-18) and 3.4% Infant Mortality Ratio (IMR) (34 deaths per 1000 live births) as per Health Management Information System (HMIS), Apr-Sept 2020.
These can be attributed mainly to teenage pregnancy, multiple gravida and untimely healthcare intervention. The State is proactively taking steps to ensure the safety of mother and child during pregnancy.It should be noted that State data also shows instances of geographical poverty whereby districts such as South Garo Hills and South West Khasi Hills show poorer health performances in comparison to its counterparts. This can be attributed to poor connectivity to these areas and lack of access to quality healthcare services.
In maternal death review audit conducted in our department, we found that there were 25 maternal deaths in the last 5 years from 2017-21. We had live births of around 6300 during the period, reaching an MMR of 396. MMR of 396/100000 live births are really high, but the reason might be that our institute is a tertiary referral centre. We get all high risk and critical cases referred from other hospitals. Out of 25 cases, 5 had Rheumatic Heart Disease with Valvular defects, 4 had Hypertensive Disorders of pregnancy namely Eclampsia and Severe Pre-eclampsia, 4 in septic shock, 3 with Antepartum Hemorrhage and Disseminated Intravascular Coagulation (DIC), 3 with COVID pneumonia and breathing difficulty.
Most of the cases mentioned above reported to our hospital very late. On inquiry from the patient party, we got to know that they never had any antenatal checkup throughout pregnancy. Also in obstetric emergency, there was much difficulty in transportation. Some even needed 1-2 days for commuting a distance of 50 kms (approx.) to our hospital. When we look at the demographic profile, most of them belong to lower socioeconomic status with no awareness or access to health care facility and also grand multiparous. Qualitative Health Surveys in regard to Focused Group Discussions regarding general awareness of availing health care facility in pregnancy and delivery is required.
With technology being an integral part of the present and future, the State's health policy will encourage use of Artificial Intelligence (AI) for problem solving and also predicting shortages and health needs of the population. Information Technology and data-based decision making is already being used in the State as seen with the launch of the MOTHER App in 2019 which uses data of expecting mothers in the State and tracks the progress of the pregnancy while ensuring proper antenatal care and also encouraging institutional delivery. The app is also being used to alert high risk cases which can drastically reduce mortality rates. So far, grassroots functionaries such as Accredited Social Health Activists (ASHAs) and Auxiliary Nurse Midwives (ANMs) have been trained to collect data and track said data. The Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA) launched by Ministry of Health & Family Welfare (MoHFW), provides a fixed day for assured,

comprehensive and quality antenatal care free of cost to pregnant women on 9th of every month. This Programme strengthens antenatal care detection and follows up of high-risk pregnancies, contribute towards reduction of maternal deaths and reduce the MMR of India.

Janani Shishu Suraksha Karyakaram (JSSK): this scheme encompasses free maternity services for women and children, a nationwide scale-up of emergency referral systems and maternal death audits, and improvements in the governance and management of health services at all levels.

The State also ensures the right to birth spacing where birth spacing is defined as the time between two consecutive pregnancies which is not less than1000 days from day of conception. This will be implemented through the mother and Child Protection strategy which is part of the larger State health policy.

MATERNAL AND CHILD HEALTH PROTECTION POLICY

The three important dimensions for reducing the maternal and child deaths that will be addressed through the policy are:

i. Clinical Management: This implies availability of trained birth attendants and specialists to cater to pregnancies in remote areas. This also implies the availability of medicines and other clinical management tools and capabilities to prevent and reduce maternal and child deaths. The policy will ensure high quality antenatal care needs to be given to all the expecting mothers during all 3 trimesters and after the birth of the child. Data has shown that many deaths occur due to untimely intervention by healthcare professionals due to delayed visits to health institutions. Such evidence can be used to formulate and test interventions that can work in the local context. For instance, a simple instruction of requesting expecting mothers to visit the local PHC/CHC (Primary Health Centre / Community Health Centre) or any healthcare institutions on their expected date of delivery (EDD) irrespective of whether they are having labor pains can greatly reduce the risk to both mother and unborn child. The policy will also ensure timely availability of ambulances, improvement of referral system and training of available manpower.

ii. Public Health Dimension: AAA convergence model of public health action will be strengthened; in addition to ANMs and ASHAs, Anganwadi workers are essential in tackling the problem of high maternal mortality rates. They currently provide supplementary nutrition to pregnant women but their role could be expanded to respond to local challenges. Trainings will be imparted to AAAs to expand their role where they are able to cater to various other needs of expecting mothers including counseling on family planning. This aspect will lay emphasis on improving the quality of ANCs to ensure reduction in MMR as well as IMR. Through this team of frontline workers, a number of local issues can be addressed such as correction of anemia in pregnant women, compulsory registration of first pregnancies, regular Village Health and Nutrition Days (VHNDs), and use of various forms of contraceptives to practice birth spacing.

Public health infrastructure will be revamped to ensure proper equipment, hygienic beds and labor rooms are available at all levels of healthcare services. Data has shown that the State has a high number of home births which is also a cause of concern and it is imperative that institutional deliveries be encouraged so that mother can receive proper care during and after childbirth. One of the avenues for encouraging institutional deliveries is to improve the quality of health institutions from sub-centre level. iii. Socio-Economic Dimension: This implies the need to make people aware of the prevailing situation while providing proper counseling services and initiating dialogue and conversation around two main issues- Teenage Pregnancy and Multiple Gravida. Both types of pregnancies fall under the category of unintended pregnancies and are high risk. Around 40 percent of deliveries in the State fall under this category. The sensitization process should be driven by the concept that every child as well as mother requires at least 1000 days of undivided time and care. This will not only ensure a holistic development of the child's brain but also increase his/her chances of survival in future. In the meantime, the mother will also be able to regain her health before another pregnancy.

The modalities to implement the policy to save the lives of mothers and children are as under:

1. Need for maintaining a 1000-day window and significance of Birth Spacing measures to affect the same.
2. Convergence between different grassroots healthcare workers including ASHAs and Anganwadis as well as various government departments.
3. Constitution of Health and Gender forums involving village level women Self Help Groups (SHG) federations.
4. Constitution of Problem Driven Iterative Adaptation (PDIA) committees in each District headed by the DCs, which would have participation of district level heads from all the concerned Departments and the Non-governmental organizations / Missionaries working for the health sector. The committee will be responsible to diagnose problems and implement ideas in an iterative manner. All the district committees will convene together quarterly to share experience and ideas and measure the objective and key results.
5. Setting up of Counseling Camps and necessary training to teachers and counselors on how to sensitize masses about sex education and the right message to be spread.
6. Training grassroots healthcare workers as well as doctors so they are able to give out effective messages to people in terms of birth spacing, significance of 1000 day window as well as diet diversity.

The State Government's main objective with regards to this policy is to save the lives of mothers and infants with a larger objective of improving the life expectancy of people in the State while attempting to break the social stigma associated with use of birth control measures as well as the taboo surrounding discussion of teenage pregnancies.

Teenage pregnancy and Multiple Gravida have been identified as key factors for high maternal and infant mortality rates. As per the State data, teenage pregnancy accounts for 10% and Multiple Gravida accounts for 30 % of the total pregnancies in Meghalaya. It is important that during teenage years, high quality teaching and learning about a broad variety of topics related to sex, exploring values and beliefs about topics and gaining the skills that are needed to navigate relationships and manage one's own sexual health. This will enable the individual to understand the dangers of teenage pregnancy and gain knowledge on the physical, mental and emotional consequences of sex. The policy will also enable counseling for sexually active couples by Medical Officers/public health nurses/ trained counselors; this will ensure that residents are made aware of issues such as family planning, contraceptives, sexual health and consent. This will bring about better overall health and wellness and a more socially conscientious population. Although the maternal health-care scenario is gloomy in Meghalaya, a limited number of studies are available in the state of Meghalaya. Second, Meghalaya is predominantly a tribal state and characterized by mountainous terrains. Different studies already showed that performance indicator of maternal health care is poor among tribal population especially in Northeastern region of India because of its geographical isolation from mainland India.

A study carried out in Assam by Dutta and Sengupta found that factors such as lack of ambulance facilities and non-availability person at home to take care of pregnant women have strong relation with shaping the health-seeking behavior among the pregnant women. If the health institutions are not available at nearby home, it is difficult to get transportation as well as accompanied person as it involves with financial factors such as extra expenses on lodging and fooding. [2] Bhattacharyya and Pala [3] in their study in East Khasi Hills Districts found that distance to the health institutions is the major barriers to the health-care utilization. Similarly, results found in recent study in Meghalaya by Sarkar et al. [4] showed that distant hospitals and bad road conditions are the main reasons for women preferred to go for home delivers in rural Meghalaya.

RECOMMENDATIONS

To achieve the global goal of improving maternal health and to save women's lives we need to do more to reach those who are most at risk, such as women in rural areas, urban slums, poorer households, adolescent mothers, women from minorities and tribal, Scheduled Caste and Scheduled Tribe groups. Institutional deliveries and facility based Antenatal care should be stressed upon and strictly adhered to.

Prompt patient care services with proper triaging at the health care facility to be done.
Government policies regarding different schemes should be time and again be discussed in mass awareness campaigns and made available to the pregnant and laboring patients.
Education regarding family planning should also be an integral part of the antenatal and postnatal care.
This continuum of care and our dedication to improvement of maternal health for healthy mother and baby can only lead to healthy nation.

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Received: 11.01.2022
Accepted: 14.01.2022
Published online: 30.07.2021
Citation: Das A, Panda S. Revisit into the Maternal Mortality of Meghalaya with special reference to maternal mortality in a tertiary health care from 2017-2021. J Indian Acad Obstet Gynecol. 2022;3(2):21-25

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