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Maternal Mortality in India: Problems and Strategies

[1]Debalina Datta,[*2]Pratyay Pratim Datta

[1]Ph.D Scholar, Public Health, SaiNath University, Ranchi, India

[2]Post Graduate Resident, Pharmacology, Hi-Tech Medical College, Bhubaneswar, India

Abstract

In developing countries like India, maternal mortality ratio is still very high. Different socio demographic factors are responsible beside the medical factors for this high ratio. Government of India has taken many steps for the improvement of health of pregnant and nursing women and women in reproductive age group. But, the result is not satisfactory enough as far as the maternal mortality ratio is considered. Early age of marriage among women, early age of pregnancy, high birth rates, and less spacing between two deliveries are some social factors which cause increase in maternal mortality ratio. Beside these, high rate of malnutrition among women is also considered to be a social problem. On the other hand, medical conditions, like ante-partum hemorrhage, post-partum hemorrhage, anemia, eclampsia, ectopic pregnancy, rupture uterus also form a significant proportion of maternal mortality—but most of these are preventable. In this scenario the review work was done to find out the problem of maternal mortality in India, its causes and possible ways of preventing it as well as to find out the strategies undertaken by Government to reduce it.

Key Words: Maternal mortality ratio, Reproductive and Child Health, JananiSurakshaYojona, First Referral Unit, Accredited Social Health Activist

INTRODUCTION

A Any health or health related problem which affects a vast majority of people and hampers the progress of an area or nation or which damages normal lifestyle of people and moreover which is preventable at least to a certain extent, can be called a public health problem. In developing country like India, in the patriarchal society the social position of a vast majority of women is not up to the mark. This creates a dreadful public health problem-high Maternal Mortality Ratio (MMR). MMR is defined as death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of pregnancy, from any cause related to or aggravated by pregnancy or its management but not from accidental or incidental causes.[1] The early age of marriage of women, high birth rate, less spacing between the birth of two children, lack of knowledge regarding danger signs of pregnancy, high rate of home delivery and delivery by unskilled birth attendant-all can lead to high maternal mortality ratio (MMR). The condition is more dangerous in mothers living in hard to reach area. Maternal mortality ratio is higher in poorer section of the community and in rural area. The culture and customs have a strong relationship with the maternal mortality ratio. In some areas the incidence of septic abortion is high which either may be due to unwanted pregnancy or due to practice of female feticide. The lack of proper care to pregnant mothers leads to their improper nutrition, insufficient rest as well as severe anemia-all these can increase MMR. Medical conditions like eclampsia, ante-partum hemorrhage, post-partum hemorrhage all have increased MMR.

Global problem

Maternal Mortality Ratio (MMR) is very high in India. Even in 2010 India has MMR of 200/100,000 live birth2. As compared to 21/100,000 live birth in USA, 15/100,000 live birth in New Zealand, 12/100,000 live birth in UK, 8/100,000 live birth in Switzerland and in France.[2] Even the neighbor country like Sri Lanka has MMR of 35/100,000 live birth; Nepal has 170/100,000 live birth. On the other hand Bangladesh has MMR of 240/100,000 live birth; Pakistan has MMR of 260/100,000 live birth.[2] African countries have more problems regarding MMR: Nigeria has MMR of 630/100,000 live birth, Uganda has MMR of 310/100,000 live birth; Tanzania has MMR of 460/100,000 live birth.[2] So, it can be said that MMR has a negative correlation with the development of the country-not only economical but also social. The health seeking behavior varies widely around the world. It has been seen that in countries having high rate of institutional delivery, MMR is less. Strong primary health care facility, home visit by female community health worker has reduced the problem in some areas. Even in same country the culture, customs varies from community to community. The people living in hilly and tribal area are in more critical condition. Less care of women from the childhood leads to a malnourished adolescent girl, malnourished pregnant mother and ultimately that mother gives birth to a malnourished baby. If the baby is female, the same procedure repeats. MMR is high in malnourished women.

With the advancement of medical science the average life span of people has increased greatly in recent years; but the rate of decrease of MMR is often not up to the mark. When a large proportion of people are living up to a very old age, in that scenario the death of a person at early age due to the consequence of a physiological process cannot be accepted. Particularly most of these maternal deaths are preventable. The countries are taking some initiatives to reduce MMR. But if proper planning, monitoring and implementation of the program for the benefit of mothers are not undertaken, the condition will not improve particularly in developing countries or under developed countries. Only a small proportion of the main problem can be estimated if we measure only the MMR. The event of death of mothers is only the tip of iceberg. Many women are suffering from anemia, lack of care from the family, pre-eclampsia, eclampsia, placenta previa, post-partum hemorrhage and sepsis. Only a small proportion is dying. On the other hand, majority are facing the acute and chronic consequences of these complications. This may lead to low birth weight of newborn and also high rate of perinatal,

Address for correspondence*

Dr. Pratyay Pratim Datta,
Flat-301, Bipasa Apartment, 24/1/A S.S.Sen Road,
Berhampore, Murshidabad, West Bengal, India, PIN-742101 E-mail address: pratyaypratimdatta@gmail.com

neonatal, infant mortality. A malnourished child is shame to the society if the child has become malnourished due to a preventable cause. Overall the future productivity of a nation will be decreased if urgent action for the care of the mother is not taken.

Etiology

The main reasons behind the high MMR in India are said to be as follows:

1.Early age of marriage and pregnancy when the girl is not suitable enough to become pregnant. MMR is found to be high in teenage pregnancy.

2.Delay in the time of complication of pregnancy: This delay is of three types. First delay occurs when the complication has aroused up to the time of taking decision to bring the lady to health facility. The family members are often not sensitized or may not take the complication seriously so that this delay can occur. The second delay occurs from the time of taking decision to bring her to health facility to the time of actually reaching to the health facility. Due to non-availability or high cost of transport or due to the long distance of health facility from the family, this delay can occur. The third delay occurs after reaching the health facility to actually receiving the treatment.

3.Ante-partum hemorrhage: In rural India the scope of diagnosing placenta previa is limited. Even many mothers do not take vaginal bleeding during pregnancy seriously. This can lead to huge blood loss and death.

4.Eclampsia: Mothers who are not regularly coming to antenatal clinic, often have undiagnosed hypertension or pre-eclampsia. Suddenly eclampsia may cause mother's death.

5.Post-partum hemorrhage (PPH): Death due to PPH mainly occurs in home delivery or delivery by untrained birth attendant and the main causes are uterine atony and retained placenta.

6.Septic abortion: Mainly due to unwanted pregnancy or use of female feticide mainly by untrained persons. Some septic abortion may be result of domestic violence.

7.Anemia: Severe anemia can cause death particularly when other complications are also there.

8.Rupture uterus: May be due to post caesarian section pregnancy or domestic violence.

9.Hydatidiform mole

10. High birth rate

11. Very less spacing between two pregnancies

Strategies to control MMR

For the overall improvement of health of mothers in India, different strategies are being taken since a long time.[3-6] For the betterment of pregnant mothers, Government of India has launched reproductive and child health programme II (RCH-II) from 1st April, 2005.[7] Recently Janani Suraksha Yojona (JSY) scheme has also been started on 12th April, 2005 for pregnant ladies.[8] The benefits and strategies for pregnant ladies are as follows:

1.Establishment of antenatal clinic in periphery

2.Provision of early detection of pregnancy, regular check-up of blood pressure, hemoglobin, fetal growth free of cost.

3.Regular home visit by Accredited Social Health Activist (ASHA) [9] and sensitizing mothers about the need of taking one extra meal, eight hours sleep at night and two hours rest at daytime, early detection of complication of pregnancy etc. ASHAs educate the mothers about the need of institutional delivery and delivery by skilled birth attendant.

4.Provision of arrangement of mothers' meeting every month at Anganwadi center.[10]

5.Establishment of First Referral Units (FRUs),[11] at block level having provision of normal delivery, caesarian section and assisted vaginal delivery. FRUs are equipped with gynecologists, pediatricians, anesthetists and blood transfusion facility.

6.Under Janani Sukarsha Yojona scheme mothers get incentive if the delivery occurs at Government accredited institutions[8].

7.Under VandeMataram scheme gynecologists who are not in Governmental service, if treat pregnant ladies at Government facilities free of cost, then they receive a particular amount of incentive from the Government and also get Vande Mataram certificate.

8.All community health centers and most of the primary health centers have started 24 hours normal delivery service.

9.Some vehicles have been fixed from the Government for bringing pregnant ladies to health facility.

10. Some NGOs are working for pregnant ladies in hard to reach area like hilly areas and delta islands like Sundarban.

Future scope

The problem of high MMR in India has been well noticed by our Government. Community participation is much more necessary in RCH programme so that mothers take it as their own programme. Often the birth control strategies are not supported by the family members. So, male involvement in the programme is necessary. Harsh punishment of diagnostic center staffs engaged in sex determination of fetus can reduce female feticide use and consequent septic abortion. Sex education in adolescence and delivering knowledge about the importance of barrier contraceptives can reduce pre-marital pregnancy and death due to septic abortion. The education of girls if continued, then usually the age of marriage is higher. So, female education should be given sufficient importance. Repeated home visits and mothers' meeting can improve the rate of institutional delivery. For this the mother-in-law should also be sensitized. Pregnant mothers should be regularly informed about the need of taking iron and folic acid supplementation during the time of pregnancy. Many FRUs are not equipped with anesthetist and blood transfusion facility. Government should take proper action for it. Increase in the number of seats of post-graduation in anesthesiology as well as in-service training of medical officers in anesthesia can solve the acute crisis of anesthetists. The overall development of a nation in education, technology and economy can lead to ultimate solution of the problem.

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