

Maternal Malnutrition: Burden on Maternal and Neonatal Health in Pakistan

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Maternal malnutrition contributes to adverse outcomes of pregnancy and chronic health issues in the neonate.¹ Pakistan is facing many public health threats including increased prevalence of maternal malnutrition. This health issue in women of childbearing age group imparts a burden on maternal and neonatal health, resulting in increased rates of maternal and neonatal mortality.² Maternal malnutrition can be characterized by undernutrition, overweight and obesity, and micronutrient deficiencies. The National Nutrition Survey 2018 reported that one in seven women of reproductive age (14.4 percent) are underweight, an improvement from 18 percent in 2011.³

Current Situation in Pakistan

Early maternal nutritional status can be assessed by calculating body mass index and mid-arm circumference. There is an association found between poor maternal nutrition and adverse pregnancy outcomes, particularly in low-resource settings.² A study conducted in Kashmir found that 39% of pregnant women were malnourished according to their body mass index. The factors associated with the increased frequency of maternal malnutrition include low socio-economic status, area of residence, level of education, food scarcity, and insufficient care during the antenatal period.⁴

Another study conducted in Sindh reported that pregnant women in their first trimester have inadequate dietary habits including low intake of major food groups such as fruits, vegetables, and dairy. The dietary inadequacies may adversely affect both fetal development and the well-being of neonates and mothers.⁵ Aims of sustainable development goals (SDGs) 2 and 3 are to eliminate hunger and all types of malnutrition, and by 2030,

reduce the global maternal mortality ratio to less than 70/100,000 live births. One of the targets is to end preventable deaths of newborns and reduce neonatal mortality to 12 per 1,000 live births. These goals can be achieved by implementing strategies to improve maternal and neonatal health in developing countries, like Pakistan, where malnutrition is a barrier to achieving these goals.³

Health Outcomes in Mothers and Neonates

The risk of complicated pregnancies and deliveries is related to the maternal malnutrition. Mothers with inadequate nutrition and chronic diseases posed an increased risk of chronic illnesses in the neonates resulting in early onset and creating a cycle of ongoing health issues. Maternal undernutrition and micronutrient deficiencies affect over 42% of women in Pakistan. It increases the risk of intrauterine growth restrictions, low birth weight, and preterm babies.¹ This resulted in high maternal and neonatal mortality rates that act as a barrier to economic growth and an adverse impact on human capital.³

Operational Work Plan for Control

To tackle this dual challenge, a comprehensive approach is essential. The key points of this approach are outlined below:

- **Dietary Education and Supplementation:**

Raise awareness about balanced nutritional requirements during pregnancy and provide necessary supplements and fortifications, such as iron, folic acid, and micronutrients in high-risk pregnancies. Additionally, addressing maternal wasting and food insecurity with balanced protein and energy supplementation is vital.^{4,6}

- **Holistic Health Services:**

Given the importance of early maternal nutrition on pregnancy outcomes, screening should be recommended based on reliable indicators such as dietary diversity scores or a combination of tools. An extensive antenatal care & counseling should be implemented to address screening and management of nutritional deficiencies counseling.^{2,5}

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- **Community Participation:**

Engage health workers to educate and assist women and the community in acquiring healthy lifestyles and utilizing healthcare services.³

- **Policy Implementation:**

Implement and keep surveillance of national initiatives like the Pakistan Maternal Nutrition Strategy 2022–27 to prevent undernutrition in women.³

- **Research and Data Collection:**

Carry out continual research to track trends, identify high-risk groups, and assess the effectiveness of interventions.³

- **Aaghosh Program Initiative:**

Pregnant women, and mothers of children under 2 years are entitled to the Aaghosh program in 13 districts of Punjab. To improve the community perception and promote the healthcare-seeking behaviour of mothers, a program is launched for community mobilization and conducting awareness campaigns. The target population of this program is pregnant women, lactating mothers with children under two, and young children. The elements of the program consist of frequent medical check-ups, birth registration, immunization for children under two, nutritional education, and family planning. The program partners are the Punjab Social Protection Authority, the Health and Population Department, and the School Education Department. The duration of the program is from 2020 to 2026.⁷

CONCLUSION

In Pakistan, maternal malnutrition poses a threat to maternal and neonatal well-being. These health issues impart a major burden on the community and healthcare and need to be addressed by implementing holistic health services, promoting nutritional education, program execution, improving community participation, and enhancing research platforms. The Aaghosh program initiative should be extended to other provinces to reduce the regional

inequalities in maternal health outcomes and improve neonatal development. Such initiative supports Pakistan's national health strategies and Sustainable Development Goals, helping to achieve the targets and reduce the prevalence of malnutrition by prioritizing the overall health and well-being of women of childbearing age.

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