MULTIPLE MICRONUTRIENT SUPPLEMENTATION

An approach to improving the quality of nutrition care for mothers and preventing low birthweight

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1. THE NEED

Women need nutritious, safe, affordable, and sustainable diets along with essential nutrition services and positive nutrition practices for their own survival, health and well-being as well as that of their children. Protecting women's nutrition is especially important during pregnancy and breastfeeding, when nutrient requirements increase and vulnerability is greatest.

2. THE CHALLENGE

Across the world, women's diets are often poor in quality and lack nutrients; deficiencies in essential vitamins and minerals (e.g., folate, iodine, iron and zinc) are rampant. These nutritional deficiencies undermine women's health and threaten the survival and development of their children. During pregnancy, women suffering from severe anaemia are twice as likely to die during or shortly after pregnancy than non-anaemic women.[1] Babies born to mothers suffering from undernutrition and anaemia are also more likely to be born with low birthweight – an early form of malnutrition that increases a child's chances of becoming wasted and stunted and suffering from growth and developmental delays.[2]

3. MULTIPLE MICRONUTRIENT SUPPLEMENTS ARE SAFE AND EFFECTIVE

Multiple micronutrient supplements (MMS) containing 15 essential vitamins and minerals are a safe and effective way to improve the diets and nutritional status of pregnant women.[3] Taken daily in pregnancy, MMS can improve anaemia and are 13 per cent more effective at reducing low birthweight than iron and folic acid supplements (IFA) alone.[4] Among women who are suffering from underweight and anaemia, the benefits of MMS are even greater – a 19 per cent reduction in the prevalence of low birthweight. Scaled up, MMS can drive country-level progress towards global goals and targets to improve anaemia, low birthweight, wasting and stunting.

4. MMS ARE GOOD VALUE FOR MONEY

At a unit cost of US$0.01-0.02 per tablet, MMS are good value for money.[5] Cost benefit analyses across different settings consistently show a high return on investment; in Bangladesh, India and Pakistan, MMS can avert 2–3 times more disability-adjusted life years (DALYs) than IFA and have a higher return on investment, ranging from a few hundred to a few thousand dollars.[6, 7]

5. MMS HAVE THE POTENTIAL TO IMPROVE THE QUALITY OF NUTRITION CARE IN PREGNANCY

MMS have the potential to transform the quality of nutrition care for pregnant women in low- and middle-income countries (LMICs). Beyond efforts to improve the quality of women's diets during pregnancy, introducing MMS is an opportunity to strengthen the integration and delivery of essential nutrition services in antenatal care. MMS may be considered as a key indicator to measure quality of care for women during pregnancy, along with nutrition counselling.

6. MMS ARE A SOCIAL EQUALIZER

MMS have long been the standard of care for pregnant women in high-income countries and are increasingly available to affluent women in LMICs. Making MMS available to all women in LMICs can act as a social equalizer by offering all pregnant women the same standard of care. Countries are achieving this by removing barriers to accessing MMS by making them free for all women attending antenatal care.

7. MMS CAN BE PRODUCED LOCALLY

As more countries introduce MMS, the demand for MMS is growing. In countries with a thriving pharmaceutical industry, there is interest to produce MMS locally. Producing MMS locally may enhance affordability, programme ownership and local economies. Local production can also eliminate regulatory issues associated with importation.

8 HOW UNICEF IS SUPPORTING THE INTRODUCTION AND SCALE-UP OF MMS

As a lead agency in nutrition on the ground in more than 130 countries, UNICEF aims to scale-up MMS along with other essential nutrition interventions as part of its Nutrition Strategy 2020–2030. These efforts span both development and humanitarian settings in line with global recommendations. Strategies include:

Advocacy

- to update national policies, strategies, and guidelines to include MMS
- to include MMS on national medicine formularies and introduce domestic financing for MMS

Coordination

- to create national coordination platforms to support MMS scale-up

Technical assistance

- to introduce MMS as part of implementation research
- to design gender-responsive nutrition care for women in pregnancy
- to expand alternative ways to deliver MMS through the private sector and communities
- to undertake feasibility analyses to produce MMS locally
- to generate programme knowledge on MMS for other countries

Collaboration with suppliers

- to expand the global MMS supplier base
- to improve quality control of MMS (e.g., shelf life, regulations, packaging and labelling)

For more information on UNICEF-supported MMS programmes, contact nutrition@unicef.org

A community health care provider counsels a pregnant woman and provides her with multiple micronutrient supplements.

Endnotes

1 Daru et al. 2018. Risk of maternal mortality in women with severe anaemia during pregnancy and post-partum: a multilevel analysis. *Lancet Global Health*, 2018;6(5):e548–e54.

2 Black et al. 2013. Maternal and child undernutrition and overweight in low-income and middle-income countries. *Lancet*, August 2013;382(9890):427-45.

3 Bourassa et al. 2019. Review of the evidence regarding the use of antenatal multiple micronutrient supplementation in low- and middle-income countries. *Annals of the New York Academy of Science*, May 2019;1444(1):6–21.

4 Bourassa et al. 2019. Review of the evidence regarding the use of antenatal multiple micronutrient supplementation in low- and middle-income countries. *Ann. N. Y. Acad. Sci.*, May 2019;1444(1):6–21.

5 Ibid.

6 Kashi et al. 2019. Multiple Micronutrient Supplements Are More Cost-Effective than Iron and Folic Acid: Modeling Results from 3 High-Burden Asian Countries. *J. Nutr.*, 2019, 149 (7), 1222–1229. (4)

7 Engle-Stone et al. 2019. Replacing IronFolic Acid with Multiple Micronutrient Supplements among Pregnant Women in Bangladesh and Burkina Faso: Single-Year Assessment of Costs, Impacts, and Cost-Effectiveness. *Ann. N. Y. Acad. Sci.*, 2019, 1444 (1), 35–51.

January 2022

Published by:
UNICEF
Nutrition and Child Development Section, Programme Group
3 United Nations Plaza
New York, NY 10017
USA

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