Afterword
Strong Evidence Supports Antenatal Multiple Micronutrient Supplementation

Implementation should be scaled up rapidly while addressing service delivery barriers

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Recognizing the complexity of decisions regarding the deployment of health interventions, many policy-setting bodies, including the World Health Organization (WHO), utilize GRADE (Grading of Recommendations Assessment, Development and Evaluation) frameworks.¹,² Such systematic and transparent frameworks consider the priority of the health problem, the certainty of the evidence of benefits or harms, and the costs and feasibility of the intervention compared with alternatives. When the evidence regarding antenatal multiple micronutrient supplementation (MMS) in low- and middle-income country (LMIC) settings is considered using such criteria, it is compelling that MMS should be recommended instead of only iron and folic acid (IFA) for supplementation in pregnancy.³

Women in LMICs have deficiencies of multiple essential vitamins and minerals (micronutrients) that result in health consequences for pregnant women and their babies.³ These range from maternal and perinatal mortality to complications throughout the life-course due to births that are premature or affected by fetal growth restriction or both. These are problems that must be accorded high priority and have been in global goals and targets.

As documented in ‘The Evidence Base’ section of this Sight and Life Special Report, the evidence supporting the use of MMS comes from randomized controlled trials in which MMS was compared with IFA.⁴,⁵ It documents overall reductions in the rates of stillbirth and of newborns that are preterm, growth restricted and low birth weight. It also identifies populations that would benefit most from MMS, including those with a high prevalence of anemia, where there is a reduction in fetal and infant deaths.⁵ No serious adverse effects were associated with MMS in these trials.⁴,⁵

This generally high-quality evidence is from Asia and sub-Saharan Africa. The 19 trials, involving more than 141,000 women, were considered to have low risk of bias in the latest systematic review.⁴ The extent and quality of the data from multiple locations provide a high overall certainty that there would be substantial benefits in most LMICs today.

Cost-effectiveness analyses have compared MMS with IFA supplementation, assuming either moderate or high incremental cost of the product.⁶–⁷ Analyses have found MMS to be very cost-effective in comparison with both IFA supplementation and other interventions.⁶–⁸ Recent data from large purchases of MMS indicate that the cost of the so-called UNIMMAP-MMS formulation of 15 vitamins and minerals has declined rapidly in the past 3 years, and is now virtually the same as that for IFA manufactured to a comparable international quality.⁹

IFA is usually provided during facility-based antenatal care (ANC) visits in LMICs, and provision of MMS instead should be straightforward. While switching the product is desirable, this alone is not enough to achieve the full benefits of MMS. Studies of barriers to the receipt of sufficient IFA supplementation in pregnancy have shown that inadequate ANC services, including limited and poor-quality supplies, and inadequate counseling work against consumption of IFA.¹⁰ While the use of ANC at least once in pregnancy is moderately high in LMICs,¹¹ care-seeking late in pregnancy and missing some of the multiple visits at which IFA refills are provided contribute to the often-insufficient consumption of IFA before delivery. Reducing these health system barriers is important for improving receipt of MMS, as it would be for IFA supplementation. In addition, community-based platforms can be utilized to improve access, counseling and monitoring of use throughout pregnancy. Switching from IFA supplementation to MMS provides an opportunity in communities to discuss the enhanced health benefits and increase demand for ANC services, care early in pregnancy and MMS adherence. Learnings from early-adopter countries that have made this switch have been docu-
The evidence supporting the use of MMS is strong and applicable to women in most LMICs. Achieving high coverage and adherence in these settings would help achieve health equity, reducing adverse outcomes of pregnancy that have highest rates in disadvantaged populations. Evidence from trials of the benefits of MMS has been building for two decades and is now at the point at which additional trials cannot be scientifically or ethically justified. Implementation of MMS instead of IFA supplementation should begin immediately and be scaled up as rapidly as feasible. Concerns about challenges in service delivery in health-facility ANC and community contacts during pregnancy should not be a reason to delay the use of MMS, which has a significant comparative advantage over IFA supplementation at any level of coverage and adherence. Implementation research is needed to help policymakers understand how to improve uptake and adherence of MMS by pregnant women through behavior change communication strategies. These studies are underway and should help fine-tune training for healthcare providers in the months and years ahead.

Importantly, as health policy adapts to integrate use of MMS into health services, a critical impediment to operationalize MMS policy is the limited availability of a high-quality, low-cost supply of MMS product. An important step to advance the availability of MMS supplies is the creation of a standardized UNIMMAP-MMS product specification for manufacturers and purchasers worldwide. Such a specification is now available and described in the ‘Resources for Scale-up’ section of this Special Report. The availability of these specifications provides opportunities for national and regional manufacturers, as well as global suppliers.

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Through the three sections, The Evidence Base, Experiences from the Field and Resources for Scale-Up, this special report leads to the conclusion that there has not been a time in recent decades when so many people agreed on what needs to be done. This consensus must lead to action by governments, donors, civil society and international agencies. The next decade of the 21st century should be focused squarely on a global effort to scale up MMS, while documenting how this is best done and sharing these findings with others. Implementing antenatal MMS would save lives and give babies the healthy start they deserve, no matter where they live.

References


A world free from malnutrition