Multiple Micronutrient Supplementation

Micronutrient Forum
April 2020
What is Multiple Micronutrient Supplementation?

Maternal and child undernutrition in low- and middle-income countries (LMICs) is the underlying cause of nearly half of all child deaths under the age of five.\(^1\) Supplementation is the only affordable and accessible way for pregnant women in resource-constrained settings to meet their micronutrient requirements.

• MMS is a **once-a-day pill of critical micronutrients** - typically 15 nutrients as outlined by the UNIMMAP formula - that that mothers need during pregnancy.

• Maternal nutrition is critical to ensuring that women have **healthy pregnancies and that children grow into healthy adults**, yet MMS are often unavailable to women in low-resource settings who could benefit from them the most.

• MMS is a **safe, efficacious, affordable**, and **cost-effective** intervention, which is ready for scale-up by the global development and nutrition communities as one of the interventions to improve maternal nutrition.

• MMS can be procured at cost-parity with current IFA programs, and Nutrition International has found that “…MMS is very cost-effective, with an unprecedented return on investment.”\(^2\)

• Existing **antenatal care programs must be strengthened** to reach more women more effectively.

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Highlights of MMS Efficacy From Recent Metareviews

Two recent meta-analysis have concluded that MMS are safe and effective and outperform IFA from a health and cost perspective.

“Our findings show that pregnant women who take antenatal multiple micronutrient supplements including iron and folic acid have a lower risk of having a baby with low birthweight, a preterm birth, or having a small for gestational age baby.” Smith et al.

“On the basis of this review of evidence, the task force concluded that the use of a daily MMS does not increase the risk of adverse effects, has a number of additional benefits for mortality and birth outcomes compared with IFA, and can be a cost-effective intervention for pregnant women in LMICs, where multiple micronutrient deficiencies persist.” Bourassa et al.

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<tr>
<th>Low birthweight</th>
<th>Preterm births</th>
<th>6-month mortality</th>
<th>Cost effectiveness</th>
<th>Risks</th>
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<tbody>
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<td>Low birthweight occurs in 16% of births Worldwide. <strong>MMS decreased low birthweight by 12%</strong> compared to Iron or IFA in LMIC settings. Also, MMS deceased very low birthweight by 22% in the same context.</td>
<td>Preterm birth occurs in 10.6% of births worldwide. <strong>MMS decreased Preterm births by 8%</strong> compared to Iron or IFA in LMIC settings. Also, MMS deceased very preterm birth birthweight by 13% in the same context.</td>
<td><strong>MMS decreases neonatal mortality by 2%</strong> and infant mortality by 3% compared to Iron or IFA in LIMC settings. A separate review found MMS particularly improves survival for female neonates.</td>
<td>The Nutrition International MMS Cost-Benefit Tool indicates that in many cases, MMS is ‘very cost effective’ according to the WHO guidelines.</td>
<td>Multiple micronutrient supplements <strong>did not significantly increase the risk</strong> of stillbirth or neonatal, 6-month, or infant mortality, neither overall or in any of the 26 examined subgroups.</td>
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Growing Global Interest and Commitments for MMS

Increasing global multi-sectoral collaboration focused on the scale-up of MMS.

**Supply**

- **New York Academies of Science** through the MMS-Technical Advisory Group recently published a UNIMMAP product specification documentation to support manufacturers.

- **Kirk Humanitarian** is manufacturing and distributing five million cycles of MMS per year for the next three years to governments and NGOs operating in LMICs.

**Demand**

- **Sight and Life Foundation** compiled a special report on MMS to inform policymakers and implementors.

- **Nutrition International** launched a tool for governments to calculate the cost-effectiveness of prenatal multiple micronutrient supplementation.

- **DSM** is working with retailers, and others to develop their own MMS product and partnering with NGOs to advocate for MMS scale up at global and regional events.

**Delivery**

- **Vitamin Angels** is providing technical assistance support to both health to integrate MMS into antenatal care services.

- **Elenore Crook Foundation** has pledged funds for advocacy, implementation research, and pilot activities.

- **UNICEF** is creating demand and improve adherence by assessing and proposing innovations to increase uptake.
MMS and COVID-19

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<td>• The current COVID-19 pandemic increases the need for <strong>interventions such as MMS:</strong></td>
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<td>• Disruptions in food systems will decreased availability of nutritious foods</td>
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<td>• Resulting in more food insecurity, hunger, and all forms of malnutrition</td>
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<td>• More difficult for pregnant women to get sufficient micronutrients from their diets</td>
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<td>• New <strong>UNICEF guidance on maternal nutrition in the context of the COVID-19 pandemic recommends</strong> to “Introduce multiple micronutrient supplements (MMS) in settings with a high prevalence of nutritional deficiencies or where food supplies are significantly disrupted”</td>
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