



Multiple Micronutrient Supplementation

Micronutrient Forum

April 2020

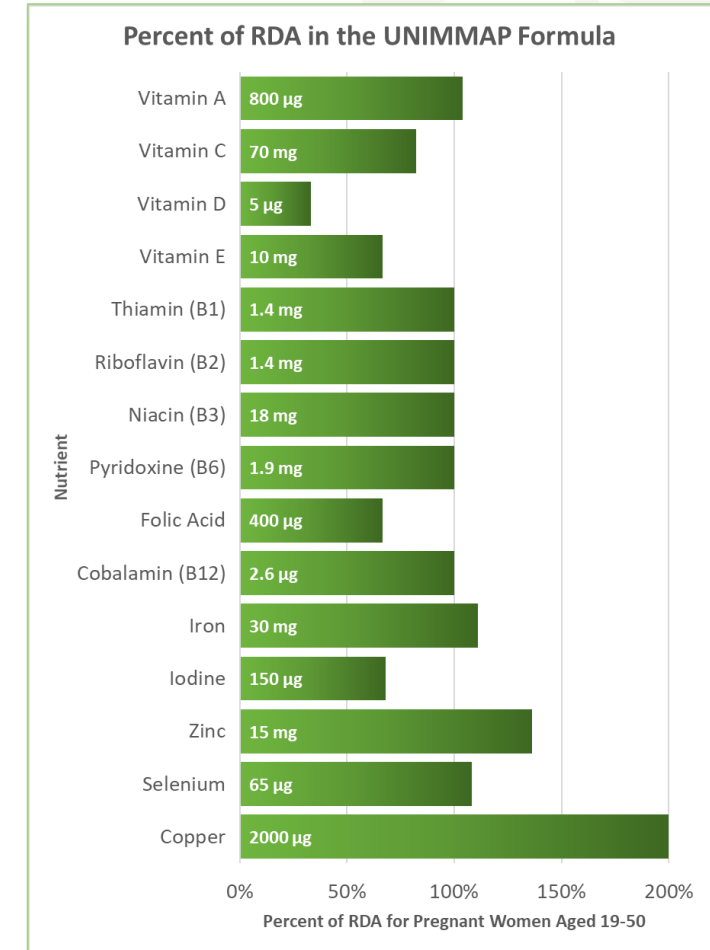
What is Multiple Micronutrient Supplementation?

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.



The United Nations International Multiple Micronutrient Antenatal Preparation (UNIMMAP) Formula ^{3,4}



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.

Low birthweight

Low birthweight occurs in 16% of births Worldwide. **MMS decreased low birthweight by 12%** compared to Iron or IFA in LMIC settings. Also, MMS decreased very low birthweight by 22% in the same context.²

Preterm births

Preterm birth occurs in 10.6% of births worldwide. **MMS decreased Preterm births by 8%** compared to Iron or IFA in LMIC settings. Also, MMS decreased very preterm birth birthweight by 13% in the same context.²

6-month mortality

MMS decreases neonatal mortality by 2% and infant mortality by 3% compared to Iron or IFA in LMIC settings.² A separate review found MMS particularly improves survival for female neonates.¹

Cost effectiveness

The Nutrition International MMS Cost-Benefit Tool indicates that in many cases, MMS is **‘very cost effective’** according to the WHO guidelines.⁴

Risks

Multiple micronutrient supplements **did not significantly increase the risk** of stillbirth or neonatal, 6-month, or infant mortality, neither overall or in any of the 26 examined subgroups.¹

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.

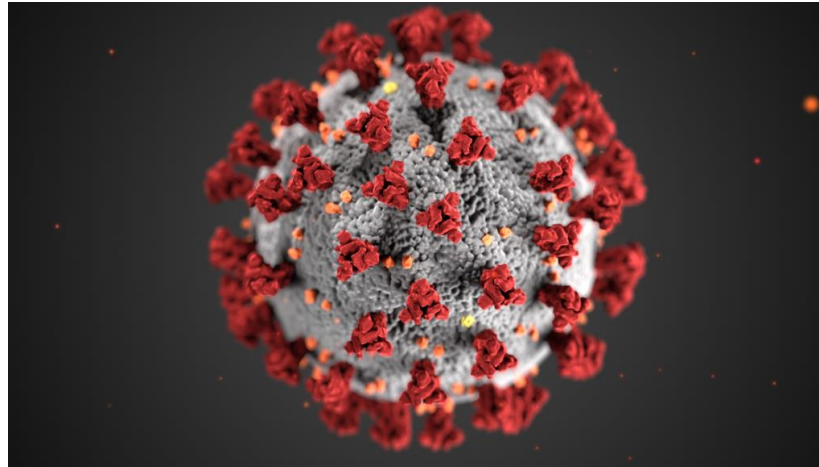
Demand

- **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 provide 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



COVID-19

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