On February 5 and 6, 2020, the Micronutrient Forum, sponsored by Kirk Humanitarian, convened 43 stakeholders from 27 organizations from foundations, academic institutions, implementing organizations, the private sector, government, and non-governmental organizations to identify, inform, align, and accelerate activity on multiple micronutrient supplementation for pregnant women.

Note: This consultation took place in advance of the COVID-19 pandemic, but the proposed actions and priorities must be viewed through the lens of the pandemic. Specifically, as food insecurity increases, multiple micronutrient supplementation and other micronutrient supplementation and fortification programs will become more important to help meet micronutrient requirements and should be prioritized by governments and implementors. See Annex 2 for more details.
Background

Maternal and child undernutrition cause 45% of all child deaths (aged 0-59 months) in low- and middle-income countries (LMICs). To reduce this burden and improve the nutritional status of both women and infants, maternal micronutrient deficiencies must be addressed.

Building on earlier efficacy trials, two recent meta-analyses have further clarified the benefits of multiple micronutrient supplementation (MMS) over the current standard, iron and folic acid (IFA) supplementation alone. These new data analyses provide critical new information about the safety and efficacy of MMS, not yet widely appreciated or socialized in the public health nutrition community. Moreover, important new information about cost-effectiveness and affordability have yet to be widely disseminated and discussed within the public health nutrition community.

While a global movement has been building in support of transitioning the use of IFA to MMS as a part of antenatal care (ANC), progress in policy change and implementation has been slow. Organizations have made important strides in epidemiological research, supply chain and market development, and distribution; however, limited coordination between organizations has meant that dissemination of information, identification of gaps in research and advocacy, and alignment on needs and stakeholder interests has not been robust. This brought about the formation of the Goalkeepers Accelerator coordinated by the Micronutrient Forum (Forum), entitled Healthy Mothers, Healthy Babies, in 2019. The Accelerator has catalyzed interest and new investments in and greater coordination on MMS.

2020 is an important year for nutrition, given donors are expected to make significant commitments during the Nutrition for Growth (N4G) Summit. While the Summit is framed to promote system-focused commitments, there, too, is a need to support and generate greater investments in proven interventions, such as MMS. These commitments are key to mark progress toward SDG2, other nutrition-related SDG indicators and goals, and the larger agenda to scale up evidence-based nutrition-specific interventions.
Objectives of the MMS Stakeholder Consultation

The key objectives for this consultation were to:

1. Achieve a greater understanding of the current evidence base, advocacy efforts, policy environment, and program implementation related to MMS.
2. Identify impediments to MMS implementation (including gaps in implementation research) in terms of supply, demand, and delivery.
3. Develop an agenda to align donor interests and MMS advocacy, policy, and implementation (including implementation research) priorities.
4. Achieve a greater shared understanding of the upcoming advocacy opportunities for MMS vis-a-vis the MNF 5th Global Conference and the N4G Summit.

To facilitate the technical consultation, a report titled *Landscape Analysis of MMS Legislation, Activity, and Priorities* was prepared and disseminated in advance. During the consultation, experts presented the latest evidence on the efficacy, availability, cost-effectiveness, and affordability of MMS. Together, the analysis and presentations provided key information to inform a roadmap for the successful introduction and scaling of MMS and identified information and investment gaps. A summary of the expert presentations and the findings of the report are presented below.

Presentation Summaries

*Evidence presentations*

The evidence shows high global burden of multiple micronutrient deficiencies among pregnant women, particularly in LMICs, and that these deficiencies contribute to the high prevalence of adverse pregnancy outcomes ([Bourassa et al., 2019](#)).

Recent evidence shows that MMS is an efficacious, safe, cost-effective, and affordable nutrition-specific intervention ready for introduction and scaling by national and local authorities, with support from the global development and nutrition communities. MMS can be a critical part of antenatal care services (ANC) to improve the health and well-being of pregnant women, newborns, and young children.

Thanks in part to Two recent meta-analyses outlining the safety and efficacy of MMS further bolster the evidence that MMS leads to a greater reduction in low birth weight (LBW), small for gestational age (SGA), and preterm births over the current standard of care, IFA supplementation. These analyses also indicate that pregnant women who have a high prevalence of anemia or who are underweight benefit even more from MMS than the general population, showing greater risk reductions of adverse pregnancy outcomes. The new analyses also show that compared to IFA, MMS of deaths in up to six-month-old babies of anemic women who had received MMS vs. IFA, and there was no evidence of serious adverse effects for either the babies or the women.

Importantly, Nutrition International has [developed a cost-benefit tool that can be used to demonstrate cost-effectiveness for countries](#) evaluating switching from IFA to MMS in antenatal care programs. In addition, MMS has been demonstrated to be produced commercially at price parity with IFA manufactured to the same standards of international quality. A superior product (MMS) can be produced at a comparable price ($2.02 per 180-count bottle at high-volumes by a US-based manufacturer).
All of this evidence has not yet been translated into strong normative guidance nor planning for broad adoption at the country level. However, the policy landscape is shifting as the World Health Organization’s (WHO’s) ANC Guidelines regarding MMS are under revision, and countries are increasingly exploring MMS as the standard of care.

**Supply/MMS production need presentations**

With an increasing demand for MMS, global production of MMS will be, imminently, insufficient. Current supply is sufficient for only a few million of the 200 million women who become pregnant women each year in LMICs.

Efforts are underway to improve international and local supply and access to MMS, conforming to the United Nations International Multiple Micronutrient Antenatal Preparation (UNIMMAP – MMS) formula and international quality standards. An important step forward is the publication of a [Consensus Open Access UNIMMAP–MMS Product Specification](#), resulting from a technical consultation jointly organized by the New York Academy of Science and the Forum, including good manufacturing practices, pharmacopoeia standards applicable to ingredients, and product testing requirements.

**National case study presentations**

Comparing the MMS implementation approaches taken in Bangladesh, Haiti, and Indonesia illustrate a range of context-specific methods MMS introduction and scaling; however, across each case study, the success of introduction and scaling were contingent upon:

1. Developing an MMS supply chain. Without a reliable supply, scaling can be rate-limited. Thus, sourcing product must be addressed early in the process. Developing a local supply chain can take a year or more.

2. Creating an enabling environment, conducive to MMS policy. A strong enabling environment is critical to move national officials to policy formation and implementation. Introducing and scaling MMS can only be achieved at the country-level when national stakeholders such as academic institutions, implementation agencies, and policymakers are involved in driving efforts. Each must be engaged.

3. Improving delivery. Successful introduction and scaling of MMS depend upon the success of ANC platforms. The failures of IFA programs will plague MMS programs, unless implementation research is conducted to inform how to improve coverage and adherence. Collectively, these experiences highlight the need to use the introduction of MMS as an opportunity and vehicle to improve ANC generally.

**Advocacy presentations**

Progress in making MMS available to pregnant women has been slow, and MMS is often unavailable to women who could benefit most. The [Healthy Mothers, Healthy Babies Goalkeepers Accelerator](#), launched in September 2019 and coordinated by the Forum, has catalyzed interest and investment in this important intervention. Partners have begun activities to help accelerate MMS supply, demand, and delivery globally.
Upcoming global advocacy opportunities for MMS include the Micronutrient Forum 5th Global Conference and the N4G Summit. Donors, including governments, foundations, and the private sector, are expected to make significant commitments during the Summit. MMS stakeholders must ensure micronutrient nutrition, generally, and MMS specifically, are on the agenda at N4G.

To do so, it is important to frame MMS within the context of maternal nutrition, focusing on a comprehensive package of interventions, not just a single product, and link it to the need to improve ANC platforms in the context of Universal Health Care (UHC).

Prioritized Actions for Introduction and Scaling

During the Consultation, participants discussed a roadmap for the introduction and scaling of MMS that includes a preparatory phase to create a national and local enabling environment, an introduction phase focusing on implementation research and advancing procurement relationships, and a scaling phase focusing on expanding coverage. This initial roadmap could benefit from further refinement, discussion, and socialization across global stakeholders.

The following actions were prioritized by participants for 2020:

1. Translating and interpreting the compelling evidence for MMS as an appropriate delivery system to improve pregnancy outcomes at an affordable cost to be considered within WHO ANC guidelines, for global, national, and local advocacy.

2. Continuing to develop tools to support awareness-raising and advocacy initiatives that can be used to facilitate understanding of the evidence, safety, cost-effectiveness, and affordability—including demonstrating MMS as a low-cost and high-return health investment. This includes creating an implementation toolbox building on country experiences, addressing uptake, adherence, and increasing supply—while acknowledging the importance of context for adjustment of the formulations and feasibility of local production.

3. Developing a consensus, high-level introduction, and scaling roadmap, including a preparatory phase to create a national and local enabling environment, an introduction phase focusing on implementation research and advancing procurement relationships, and a scaling phase focusing on expanding coverage.

4. Developing a coordinated plan among global stakeholders to meet the increased demand for MMS supplies through public and private sectors channels, including financing for product purchases, and registration of MMS formulations in the Essential Medicine List (EML) that could help to open up additional opportunities for alternative financing mechanisms.

5. Recruiting new partners with strong commitments to the Healthy Mothers, Healthy Babies Accelerator, and making continued use of the Accelerator to inform a coalition of partners of progress, to disseminate results, share experiences, and to convene global stakeholders on a periodic basis to generate consensus on key MMS topics that can be advocated for during important global moments.

6. Leveraging major global moments this year, especially for advocacy, by engaging country leadership at key meetings, including the Micronutrient Forum 5th Global Conference and the N4G Summit.

The full list of prioritized actions is described in Annex 1.
Discussion and Conclusion

While it is generally agreed that MMS is a superior product to IFA and has been demonstrated to be efficacious, safe, cost effective, and affordable, the focus of advocacy and programs should be on the overarching goal: to improve maternal nutrition and positively impact the health and well-being of women, infants and young children. Advocacy on MMS should, therefore, be around the need for a comprehensive package of interventions to improve maternal nutrition, not just the use of a single product. Not all stakeholders will have MMS at the center of their work; some organizations will prefer to focus on improving ANC service delivery channels, and all these actions are needed to improve maternal health and nutrition, including the effective use of any type of micronutrient supplements. It is important to address the questions raised during the consultation in advocacy plans and materials as these are questions that will be brought up at the country level as well. There was an emphasis on the importance of including maternal health experts in future and better coordination between the nutrition and maternal and child health communities.

To further facilitate dialogue and collective action on this agenda, the Forum together with partners committed to further build, formalize, and lead the MMS Stakeholder Group, add local and country representatives, monitor progress on the agreed actions, share learnings, and facilitate maternal nutrition and MMS in global advocacy.

The following four concluding statements were prepared by the Forum based on the dialogue during the MMS Stakeholder Consultation:

1. MMS is a superior product to IFA, especially for underweight and anemic women, in promoting positive pregnancy outcomes, including LBW, SGA, preterm birth, and other factors.
2. Maternal nutrition and ANC must be prioritized globally, and MMS programs present valuable opportunities to strengthen maternal care and ANC.
3. The nutrition community is committed to partnering with national government entities and other relevant stakeholders to develop effective and context-specific programs.
4. With key advocacy events occurring in 2020, all MMS stakeholders, with support from the Forum, will continue and strengthen advocacy efforts to build on the current momentum for MMS.
## ANNEX 1: 2020 Priorities identified by workshop participants

<table>
<thead>
<tr>
<th>Prioritized Categories</th>
<th>Tactics</th>
</tr>
</thead>
</table>
| **COLLABORATION:** Coordinate and align stakeholders including global and local actors, and related groups | • Identify and engage additional MMS stakeholders and global-level partners to join the collaboration consortium  
• Create a coalition of philanthropies interested in MMS, nutrition, and ANC (working group)  
• Engage country leadership, and identify regional and subnational Centers of Excellence  
• Develop unified and comprehensive calls to action, talking points, and messaging, for global and local advocacy  
• Complete the WHO’s Essential Medicine List (EML) application  
• Ensure MMS and ANC are included in N4G country and donor pledges  
• Identify linkages to create united, holistic, ANC packages that include nutrition and MMS (research agenda) |
| **GLOBAL ADVOCACY:** Translate evidence on impact and cost-benefit, and interpretation of normative guidelines, for global and national advocacy | • Identify and quantify additional economic impacts of MMS, such as GDP increase and reduced health care costs  
• Conduct a national bottleneck analysis to identify country-level bottlenecks and solutions across different countries and contexts  
• Develop a business case for MMS that leverages existing evidence and crystallizes the opportunity for governments and industry  
• Organize regional workshops to identify, engage, and inform local champions |
| **NATIONAL ADVOCACY:** Continue development of compelling advocacy and planning tools to demonstrate the low cost and high return on MMS investments | • Create a compendium of MMS implementation case studies documenting activity, gaps, and best practices  
• Identify similar health programs, focusing on best practices, strategies, and interventions to improve adherence (desk review)  
• Create a communication toolkit for different audiences based on success stories  
• Learn lessons from IFA programs on improving coverage  
• Create clearly defined national metrics for policy, adherence, and supply  
• Develop country-level strategies including identifying and engaging local influencers and frameworks to collaborate |
| **IMPLEMENTATION – National Scale-Up:** Create an implementation toolbox for scale-up to share best practices on increasing supply and improving delivery and adherence while acknowledging the importance of context | • Develop a high-level implementation roadmap based on learnings from similar past health initiatives (e.g., family planning, and zinc supplementation)  
• Gain consensus on a general roadmap for accelerating MMS introduction and use.  
• Engage suppliers from both private and public sector channels, identify and deploy mechanisms, such as purchase guarantees and other funding mechanisms, to engage more private sector manufacturer, and identify and deploy startup technical support to manufacturers to meet increased demand for MMS.  
• Make use of an MMS premix that is conformant with Consensus Open-Access UNIMMAP—MMS Technical Specifications in order to speed up the number of manufacturers able to produce an affordable standardized MMS product at scale.  
• Reduce barriers for international private-sector producers including market access, shipping support, and access to ingredients |
| **FUTURE ACTIVITIES:** Medium-term activities to address important but not urgent questions | • Expand research to explore MMS impact on related issues such as postpartum hemorrhage, breastfeeding, ANC, and others |
Annex 2: Multiple Micronutrient Supplementation Priorities & COVID-19

Increased Need
The COVID-19 pandemic will likely increase the need for MMS in the immediate future. Food systems are being disrupted, and marginal populations have decreased income while food prices increase. This will increase food insecurity, hunger, and all forms of malnutrition, including micronutrient malnutrition. As a result, it will be more difficult for pregnant women to get sufficient micronutrients from their diets. Women who were already deficient are likely to become more so, and new populations of women are at risk of becoming deficient. Supplementation is a proven, effective, and targeted intervention to address these issues and should be prioritized by policymakers to address the ramifications of the pandemic.

New Normative Guidance
UNICEF and partners have issued new guidance on antenatal nutrition in the context of the COVID-19 pandemic, recommending to “Introduce multiple micronutrient supplements (MMS) for pregnant women to ensure adequate micronutrient intake in populations with a high prevalence of nutritional deficiencies or where food distribution is disrupted.” Additionally, the MMS Technical Advisory Group (TAG) has produced a brief, The use of multiple micronutrient supplementation (MMS) for maternal nutrition and birth outcomes during the COVID-19 pandemic, to complement the above-mentioned ANC nutrition guidance.

Roadmap Impact
Global demand for MMS is likely to increase in the near term, putting more pressure on supply and delivery. As such, MMS stakeholders must examine how supply, demand, and delivery will be impacted by the pandemic.
1. Supply chains for MMS manufacturing have been impacted, slowing down the delivery of current orders, and further lengthening the lead time required to create new product. New manufacturers should be onboarded immediately.
2. Demand may increase due to the UNICEF and partners’ maternal diets and nutrition services and practices brief, and policymakers’ desire to champion MMS as a targeted and efficacious intervention.
3. Delivery will likely be affected; ANC platforms may shift procedures and priorities in response to COVID-19. Implementation research must meet the new implementation environment, and best practices must be shared.

Advocacy Impact
While the pandemic presents new challenges and will have an impact on programming that must be addressed, MMS stakeholders must work to find openings to push the MMS agenda forward and prioritize MMS implementation and scale-up within policymaker, implementor, and donor priorities. There is some ambiguity around if the N4G Summit will take place this year due to the COVID-19 pandemic and/or if expectations for pledges may decrease. Nonetheless, with past N4G commitments set to expire this year, there is urgency within the community to drive for commitment to ensure progress continues.
Please reach out to the Micronutrient Forum with questions regarding the MMS Consultation and for additional assets shared and produced.
Email: info@micronutrient.org

Learn more via https://micronutrientforum.org/