Terms of Reference for consultancy for improved Forecasting of MMS requirements for Scale-Up in Pakistan

Assignment	**Terms of Reference for consultancy for improved Forecasting of MMS requirements for Scale-Up in Pakistan**
Published date	25 August 2025
Concept note submission date	Friday, September 12, 2025 (Eastern Standard Time)
Program	Maternal Newborn Health and Nutrition
Contract Type	Consultancy Contract
Duty Station	Pakistan with travel to relevant provinces/regions and districts where needed
Expected Place of Travel	1) Punjab Province: Lahore and Lodhran District 2) Khyber Pakhtunkhwa Province: Peshawar and Battagram District 3) Islamabad Capital Territory (ICT) and Islamabad (Rural) 4) Azad Jammu Kashmir (AJ&K) region: Muzaffarabad and Hattian district 5) Gilgit Baltistan (GB) region: Gilgit and Nagar district
Contract Duration	October 2025 – January 2026
Version	#1.0
Expression of interest submission	proposals@nutritionintl.org

Consultancy Purpose

Nutrition International seeks to engage a consultant or firm to support the development of an improved forecasting models and a forecasting tool for Multiple Micronutrient Supplementation (MMS) at national and five provinces/regions of Pakistan (Punjab, Khyber Pakhtunkhwa (KP), Gilgit-Baltistan (GB), Azad Jammu & Kashmir (AJ&K) and Islamabad Capital Territory (ICT) Rural).

The assignment will build on current utilization data from the MMS scale-up initiated in April 2025, other relevant data and will generate forecasting models/assumptions and a forecasting tool that better reflect service uptake, eligibility criteria and provincial planning needs for MMS.

Project Background Information

1. Background and context

Maternal and newborn health and nutrition needs in Pakistan remain high, with a neonatal mortality rate of 42 per 1,000 live births and a low birthweight prevalence of 23% (2018)[1]. Micronutrient deficiencies among women of reproductive age are widespread, driven by food insecurity and limited antenatal coverage. Despite national guidelines recommending iron-folic acid (IFA) supplementation, adherence remains low, approximately 59% took iron tablets or syrup during pregnancy and only 29% for 90 days or more during pregnancy as recommended[2].

In 2020, the World Health Organization (WHO) issued updated antenatal care guidelines supporting context-specific use of Multiple Micronutrient Supplementation (MMS) as a safe and cost-effective alternative to IFA, based on evidence of improved birth outcomes.[3] In 2020 the WHO updated its *Recommendations on Antenatal Care for a Positive Pregnancy Experience*[4] to a context specific recommendation that supports the use of antenatal Multiple Micronutrient Supplementation (MMS) in the context of rigorous research. In Pakistan, the Advancing Maternal Health through MMS Implementation Research (AMMI) project, led by the Ministry of NHSR&C and Nutrition International, generated valuable implementation insights and tools to support the transition to MMS through the ANC platform.

However, early implementation experience and recent analysis of IFA supplementation programs in Pakistan point to persistent bottlenecks in supply planning, including limited forecasting capacity, reliance on population-level estimates, complexities of private/public use and anaemia treatment and lack of real-time consumption data[5]. These gaps have contributed to stock-outs, procurement delays, and inefficiencies that can undermine the credibility of supplementation programs. To ensure that MMS scale-up efforts are both effective and sustainable, it is essential to strengthen forecasting approaches that reflect actual service

[1] National Institute of Population Studies (NIPS) [Pakistan] and ICF. *Pakistan Demographic and Health Survey 2017-18*. NIPS and ICF: Islamabad, Pakistan, and Rockville, Maryland, USA; 2019
[2] National Institute of Population Studies (NIPS) [Pakistan] and ICF. *Pakistan Demographic and Health Survey 2017-18*. NIPS and ICF: Islamabad, Pakistan, and Rockville, Maryland, USA; 2019
[3] WHO. *Recommendations on antenatal care for a positive pregnancy experience*. Geneva, Switzerland: World Health Organization; 2016. Available from https://apps.who.int/iris/bitstream/handle/10665/250796/9789241549912-eng.pdf?sequence=1
[4] WHO. *Recommendations on antenatal care for a positive pregnancy experience*. Geneva, Switzerland: World Health Organization; 2016. Available from: https://apps.who.int/iris/bitstream/handle/10665/250796/9789241549912-eng.pdf?sequence=1
[5] Pakistan Demographic and Health Survey 2017

delivery trends, accounting for anaemia treatment needs in Pregnant Women and early data from the ongoing rollout. This exercise aligns with the Maternal Nutrition Strategy (2022–2027), which emphasizes improved planning, financing and coverage of MMS as part of strengthened antenatal nutrition service delivery[6].

Building on this evidence, the Government of Pakistan, with technical support from Nutrition International and funding from the Bill & Melinda Gates Foundation, is now scaling MMS in five selected districts across AJ&K, GB, KP, Punjab, and ICT Rural. The scale-up is guided by readiness assessments, intensive monitoring, and the development of costed provincial implementation plans and a national roadmap to support a sustainable and context-responsive MMS transition.

Assignment Details

2. Overview of Assignment

To support the Government of Pakistan (GoP) in its transition from IFA to MMS, Nutrition International is seeking to engage a consultant or firm to lead the development of an improved and context-sensitive quantification and forecasting of MMS approach across five selected provinces/regions: Punjab, KP, GB, AJ&K and ICT-Rural.

In supply chain terms, 'quantification' refers to the overall process of determining the quantities and costs of health commodities needed over a defined period. It involves two key steps: forecasting, estimating future commodity needs based on service delivery data, consumption trends, demographic information and programmatic factors and supply planning, translating the forecast into procurement and delivery schedules that ensure continuous availability of products[7].

The primary focus of this assignment is on forecasting within the quantification process. This will involve close engagement with federal, provincial, and regional stakeholders to review existing forecasting methodologies and assumptions and develop a refined model that reflects service delivery realities. The model should incorporate eligibility exclusions (e.g., anaemic women), patterns of ANC utilization (public vs. private sector), early MMS uptake and refusal rates from the 2025 rollout, facility- and community-level distribution channels, and relevant environmental factors (such as workforce availability, service expansion and funding constraints) and incorporate global best practices for quantification of maternal health and nutrition commodities.

The improved forecasting model will be designed for routine updates with minimal external support, enabling provincial planning teams to generate accurate and actionable MMS supply projections. This exercise will directly inform provincial procurement planning and will feed into costed implementation plans and the national MMS roadmap currently under preparation.

[6] Maternal Nutrition Strategy (2022–2027), URL: https://www.unicef.org/pakistan/reports/pakistan-maternal-nutrition-strategy-2022-27

[7] MSH 2025. Quantification of Health Commodities: RMNCH Supplement Forecasting Consumption of Select Reproductive, Maternal, Newborn and Child Health Medical Products, Updated 2025

3. Key Activities

The selected consultant/firm will be responsible for the following:

- **Conduct a landscape review** of existing quantification and forecasting methods, assumptions and data sources currently used for MMS and related maternal nutrition commodities in Pakistan.
- **Analyze current and early MMS utilization data** from the five implementation districts (since April 2025), including ANC attendance trends, refusal rates and inclusion/exclusion MMS delivery practices (e.g., anaemic women).
- **Engage with key stakeholders** at federal, provincial, and district levels to gather input on local ANC service delivery patterns, forecasting capacity and challenges in current quantification practices.
- **Develop forecasting scenarios and models** for each province/region that reflect:
    - Public sector ANC coverage
    - Eligible population estimates
    - Accounting for anaemia treatment for pregnant women, lactation period, uptake patterns and dropout rates from current rollout
    - Supply chain alignment with demand
- **Propose a forecasting tool** for MMS forecasting at national and provincial level.
- **Validate revised forecasting estimates and assumptions and tool** through consultative processes with national and provincial planning units.

4. Methods

The quantification and forecasting process should follow a structured, stepwise approach to ensure consistency, stakeholder ownership and the ability to update estimates as new data become available. The consultant/firm will work in close coordination with provincial, district and federal stakeholders and Nutrition International. The methodology and data inputs will be refined during the inception phase and finalized in a design workshop with Nutrition International.

The consultants/firm can adapt/explore global forecasting tools for example MSH Quantification of Health Commodities guide) to the MMS context, ensuring the model is practical, routinely updatable, and usable by federal/provincial/district planning teams[8].

5. Deliverables

5.1. Preparation, Workplan, and Data Review

Activities:

- Develop a comprehensive workplan and timeline for the assignment, outlining processes, activities, milestones, roles and responsibilities.
- Review global best practices and existing quantification and forecasting methods, assumptions and tools for MMS and related maternal nutrition commodities in Pakistan.

[8] MSH 2025. Quantification of Health Commodities: RMNCH Supplement Forecasting Consumption of Select Reproductive, Maternal, Newborn and Child Health Medical Products, Updated 2025

- Compile and assess available data sources, including ANC service utilization (public and private), eligibility exclusions (e.g., anaemic women), historical IFA consumption, early MMS uptake/refusal rates and distribution patterns from the 2025 rollout.
- Engage with federal, provincial, and district stakeholders to validate data sources, understand local service delivery patterns and identify capacity gaps or challenges in current quantification processes.

Outputs:

- Approved workplan and timeline (with Nutrition International sign-off prior to any field work).
- Summary report of global best practices and existing in-country approaches for quantification of maternal health and nutrition commodities.
- Validated dataset with key parameters for forecasting.

5.2. Forecasting Models/Scenarios and Tool Development

Activities:

- Develop national, province-/region-specific MMS forecasting models based on/reflecting different scenarios, service coverage, eligible populations, uptake and dropout trends and supply chain considerations.
- Incorporate environmental factors (e.g., infrastructure, provider capacity, social and behavior change communication (SBCC) activities and potential cross-sector demand (NGOs, social marketing, private sector use, accounting for anaemia considerations).
- Forecasting Tool: Propose a forecasting tool that is practical, updatable and usable by provincial planning teams.

Outputs:

- Province-/region-specific forecasting models with documentation of assumptions and parameters.
- Guidance notes on updating and maintaining the models.

5.3. Validation and Finalization

Activities:

- Conduct forecasting assumption workshops at provincial/regional and federal levels to validate model parameters and key assumptions.
- Refine and finalize forecasting models based on feedback.
- Refine and finalize user-friendly forecasting tool for use by federal/provincial/district planning teams.

Outputs:

- Final validated forecasting models and tool.
- Workshop report capturing key agreements and recommendations.

6. Timeline:

This assignment is expected to take up to 16 weeks (4 months), from October 2025 to January 2026, with an estimated level of effort of approximately 60 work days. The consultant/firm is expected to propose a detailed work plan and allocate the required days across the inception, model development, stakeholder consultations, validation workshops and final reporting phases. Note that the consultant/firms will be expected to provide an update to the Nutrition International team at least every two weeks.

Deliverables	Approximate timeline
Deliverable 1: (15 work days) • Inception meeting minutes • Approved workplan and timeline (with Nutrition International sign-off prior to any field work). • Summary report of existing approaches/methods, guidance and recommendations improvements	1-6 weeks
Deliverable 2: (30 work days) • Validated dataset with key parameters for forecasting • Province/region-specific forecasting models with documentation of assumptions and parameters. • Forecasting tool based on the provincial/region specific models/scenarios • Guidance notes on updating and maintaining the models and forecasting tool.	7-12 weeks
Deliverable 3: (15 work days) • Final validated forecasting models and tool. • Workshop report capturing key agreements and recommendations.	13-16 weeks

7. Submission Requirements

Qualified* consultants/firms are invited to submit a budgeted proposal that includes the following:

- A brief description of the consultant/firm's recent experience in health systems, public health, or health economics, with specific examples of comparable assignments involving quantification, forecasting or supply chain management.

- A proposed concept note (maximum **4 pages**) describing the proposed services in response to the TOR, along with a draft workplan for performing the assignment. **Proposals exceeding four pages may not be reviewed.**

- **Budget** (in CAD or PKR).
  The financial proposal should present a comprehensive budget covering all costs required to deliver the assignment, including professional fees, travel to the five project sites and meeting logistics. The proposal should clearly indicate the daily professional fee rate(s) and provide a breakdown of the total cost based on the estimated 60 workdays. Any anticipated travel and logistical expenses should be itemized separately and justified. For Pakistan-based consultants, payments will be made in PKR, converted from the agreed budget in CAD.

- A proposed schedule for deliverables and payments.
- Recent CV(s) of consultant(s), including a management structure matrix (for firms). Firms should be registered as per national/international laws and have a valid Tax Number.
- CVs must not exceed two pages per individual.
- Any comments or suggestions on the terms of reference.

* The selected consultant/firm must have:

- **Extensive demonstrated experience** in health planning, public health and supply chain management in public health (minimum 15 years), with a track record of conducting similar assessments.
- **Proven experience** working in close consultation with government line ministries, particularly the Ministry of Health and provincial health departments, as well as public health workers and community stakeholders in Pakistan.
- **Familiarity with the local context**, including cultural, political and health system dynamics in Pakistan (preferred).
- **Strong writing skills**, with the ability to prepare clear, concise, and well-structured reports.
- **Excellent communication and teamwork skills**, with the ability to collaborate effectively across diverse teams and stakeholders.

Expressions of Interest should be sent by email to Olena Karelina (proposals@nutritionintl.org) with the subject header "**Expression of Interest – Forecasting of MMS requirements for Scale-Up in Pakistan**".

The deadline for submission is Friday September 12, 2025 (EST)