

## Country Profile: Nepal

### Introduction

Globally, the prevalence of anemia among pregnant women has remained relatively unchanged over the past two decades.<sup>1</sup> Nepal is among the few countries that have shown a reduction in anemia prevalence among pregnant women, from 42.4%<sup>1</sup> from 2006 to 32.7%<sup>2</sup> in 2022.<sup>2-3</sup> This improvement is associated with progress in education, sanitation, women's empowerment, and fertility rates, though these gains are not consistent across all regions. Anemia remains a public health concern with high rates among both pregnant women and women of reproductive age. Additionally, underweight status among 10.3% (2022)<sup>4</sup> of women of reproductive age (WRA) continues to affect women in Nepal.<sup>5</sup>

These patterns are reflected in national statistics related to birth outcomes. Data available from the [World Health Organization's Global Health Observatory](#) indicate that several birth outcome indicators remain elevated: stillbirths were at 23 per 1,000 total births in 2023,<sup>6</sup> Pre-term births were at 11.2%,<sup>7</sup> and low birthweight was at 19.7%<sup>8</sup> in 2020; infant mortality was at 23.3 per 1,000 live births in 2023.<sup>9</sup>

As Nepal continues to face challenges in maternal and newborn health, the country aims to strengthen policies and programs that improve access to comprehensive prenatal care and nutritional support for mothers and infants. Nutrition International (NI)'s policy brief shows that switching from iron-folic acid (IFA) to multiple micronutrient supplements (MMS) could prevent 174,552 disability-adjusted life years (DALYs) over 10 years, save 1,692 children's lives, and yield benefits 138 times the cost.<sup>10</sup> Transitioning to MMS could lead to better perinatal health outcomes and is highly cost-effective. Given these significant advantages, prioritizing a shift from IFA to MMS is essential for improving the health of mothers and their children across Nepal.

This country profile presents a concise overview of Nepal's status in transitioning from IFA supplementation to MMS for pregnant women. This document aims to inform policymakers, partners, and stakeholders about the current progress, challenges, and opportunities for scaling up MMS within maternal nutrition and health strategies in Nepal.

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<sup>1</sup> Nepal Demographic and Health Survey, 2006, Table 12. 10 Prevalence of anemia in women

<sup>2</sup> Nepal Demographic and Health Survey, 2011, Table 11. 24 Prevalence of anemia in women

## MMS Policy and Regulatory Status

Nepal's Multi-Sector Nutrition Plan-II (2018 - 2022) focused on daily IFA supplementation for pregnant and lactating women, along with preventive deworming and counseling.<sup>11</sup> There is policy guidance on preventive IFA supplementation throughout pregnancy, as well as standard operating procedures for implementing IFA. The inventory system tracks the IFA supplements systematically delivered to health facilities during antenatal care visits. Thus, an overall system is currently in place in Nepal to prevent anemia in pregnant women through these strategies. However, there are currently no regulatory guidelines or policy documents on national anemia protocols that focus on MMS supplementation, and MMS is not included in Nepal's Essential Medicines List (EML).<sup>12,13</sup>

## Implementation Status

The Government of Nepal is preparing to transition from IFA supplementation to MMS with a focus on generating additional evidence on the acceptability and adherence to MMS compared to IFA. In 2022, Helen Keller International (HKI), supported by Vitamin Angels, conducted a landscape analysis emphasizing the need for implementation research to facilitate this transition. Based on key findings and recommendations, stakeholders have agreed to:

- (i) Establish an MMS Technical Working Committee to guide technical aspects of MMS programming in Nepal.
- (ii) Undertake implementation research to evaluate MMS acceptability and adherence for informed implementation and scale-up.
- (iii) Conduct advocacy with the Ministry of Health and Population and the Department of Drug Administration for the inclusion of MMS in the national EML.
- (iv) Carry out a supply context assessment to determine local manufacturing capacity and related production, transportation, and delivery costs for MMS supply.

Additionally, formative research has investigated barriers and enablers to MMS acceptability, including social norms and product attributes, as well as factors influencing uptake, adherence, and potential delivery platforms. Under the guidance of the Family Welfare Division, Department of Health Services, Ministry of Health and Population, and with financial and technical support from the Eleanor Crook Foundation (ECF), HKI is investigating the acceptability, adherence, operational feasibility, cost-effectiveness, and supply readiness of MMS among pregnant and lactating women in Nepal.<sup>12</sup>

Furthermore, HKI is conducting a randomized controlled trial (RCT) in Lumbini Province to compare adherence to MMS and IFA, while demonstration pilots in six other provinces are assessing MMS acceptability among pregnant women and healthcare providers. This project, running through September 2025, aims to reach over 3,000 women and facilitate Nepal's transition to providing MMS to all pregnant women.<sup>14,15</sup> Current implementation research and evaluation outcomes include acceptability, feasibility, and sustainability. In terms of health worker capacity building, partners have provided initial per-service training for healthcare students.<sup>12</sup>

## MMS Coverage and Utilization

The identified target group for MMS, in addition to pregnant women, includes breastfeeding women and postpartum individuals (for example, within the first six months after birth), regardless of lactation status.<sup>12</sup> Efforts to improve MMS uptake in Nepal for these target groups have begun, including individual counseling at healthcare centers.

In addition, demand-creation through advocacy, communication, and social mobilization (ACSM) activities has been implemented as a strategy to raise awareness and scale up MMS programs in Nepal (UNICEF NutriDash).<sup>16</sup> Nepal is one of 15 countries to receive a package of nutrition services, including MMS, under the UNICEF Maternal Nutrition Acceleration Plan, which aims to reach 100,000<sup>3</sup> pregnant adolescent girls and women with these services by the end of 2025.<sup>1</sup>

## Key Program Actors and Partners

The Government of Nepal's Ministry of Health and Population is leading the potential transition from IFA to MMS in partnership with various national and international partners (Table 1). Sight and Life (SAL) is one of the key partners working in Nepal on MMS scale-up. SAL conducted assessments and evaluations to develop a tool to estimate the budget for the MMS transition across various scenarios.<sup>12</sup>

Table 1: List of national and international partners working to scale up MMS in Nepal

National Partners	International Partners
<a href="#">Helen Keller International Nepal</a>	<a href="#">Eleanor Crook Foundation (ECF)</a>
	<a href="#">Helen Keller International (HKI)</a>
	<a href="#">Johns Hopkins University</a>
	<a href="#">Kirk Humanitarian</a>
	<a href="#">Sight and Life (SAL)</a>
	<a href="#">Vitamin Angels (VA)</a>

## Supply Chain

Since 2023, HKI and SAL have assessed MMS supply readiness and developed a procurement roadmap that includes evaluating the IFA supply chain and delivery systems, as well as local MMS manufacturing capacity.<sup>12</sup> SAL coordinated with pharmaceutical suppliers to enhance access and has

<sup>3</sup> United Nations Children's Fund (UNICEF). Improving Maternal Nutrition: An Acceleration Plan to Prevent Malnutrition and Anaemia during Pregnancy (2024–2025). UNICEF, New York, 2024 (Table 1: Target numbers of pregnant adolescent girls and women to receive the package of nutrition services, including MMS, by the end of 2025)

supported the development of tools to estimate MMS transition budgets across various scenarios. Research on these efforts is overseen by Nepal's Nutrition Technical Committee, led by the Family Welfare Division within the Health Ministry.<sup>12</sup>

## Monitoring, Evaluation, and Research

In Nepal, the national Micronutrient Survey (NNMSS 2016 and upcoming 2025), the Demographic and Health Survey (DHS), and the Health Management Information System (HMIS) track existing anemia prevention strategies, including anemia status and IFA coverage. Currently, there is no dedicated monitoring and evaluation (M&E) system for MMS. Nonetheless, other implementation research and evaluation are underway by other partners; e.g., Sight and Life has evaluated the local MMS manufacturing capacity.<sup>12</sup>

## Financing and Sustainability

ECF is funding the ongoing implementation of pilot research projects led by HKI. SAL and HKI collaborated on supply assessment research.<sup>17</sup> Historically, Nepal's anemia prevention strategy involved the Government and Female Community Health Volunteers (FCHVs) distributing IFA supplements to pregnant women and encouraging antenatal care visits, which increased IFA coverage. Research indicates that to further reduce the prevalence of anemia during pregnancy, policymakers could consider transitioning from IFA to MMS.<sup>18</sup> Utilizing the existing IFA delivery mechanism may also be an efficient and sustainable approach to MMS scale-up. Currently, most activities related to creating an enabling environment and designing, testing, and implementing strategies are funded, except for strengthening the supply chain and the MMS delivery system.<sup>14</sup>

## Challenges and Next Steps

Nepal was expected to adopt an implementation science approach to the introduction of MMS by 2024.<sup>12</sup> Several challenges remain for the transition from IFA to MMS, including the policy and regulatory classification of MMS, its inclusion in the national EML, integration into policies and monitoring systems (HMIS/DHS, nutrition surveys), and costing, budgeting, and sustainability planning. Key challenges in MMS procurement include developing a roadmap, planning supply and manufacturing, and improving coordination with pharmaceutical partners and suppliers to enhance access.<sup>12</sup> Since Nepal lacks a formal policy or national guideline on replacing IFA with MMS, the national government, with the support of the partners, must develop these policies in the next steps for the transition. Thus, the key priorities include developing MMS regulations and policies, scaling up and programming with a sustainable financing transition plan, and providing training and capacity-building for health care workers.<sup>14</sup>

# MMS Tools and Resources

## 1. Costing and Economic Analysis tools

These resources guide policymakers and health program managers considering a transition from IFA to MMS. They offer practical tools and costing aids to support effective decision-making and planning.

- a) [Multiple Micronutrient Supplements \(MMS\) Introduction and Scale-up Roadmap Costing Tool](#)
- b) [A Policy Brief for Nepal: Cost-Effectiveness of Transitioning from Iron and Folic Acid to Multiple Micronutrient Supplementation for Pregnancy, Nutritional International, April 21, 2020](#)
- c) [A tool to aid decision-making transitioning from IFAS to MMS](#)

## 2. Situation and Policy Analyses and formative research

The WHO provides Nepal's health planning cycles, health programmatic/project timelines, and information on key partners. The paper builds on Nepal's progress, presenting the ongoing challenges it faces and the approaches the Government is taking to address them.

[WHO Country Planning Cycles – Country national health planning cycles, health programmatic/project timelines, and information on key partners \(Nepal\).](#)

## 3. Clinical Research on MMS

These papers detail the impact of maternal micronutrient supplementation during pregnancy in Nepal, examining outcomes such as fetal loss, infant mortality, birth weight, gestational duration, and child development. Collectively, the research highlights the long-term benefits of MMS on the health and growth of mothers and children.

- a) [Effects of maternal micronutrient supplementation on fetal loss and infant mortality: a cluster-randomized trial in Nepal](#)
- b) [Effects of antenatal Multiple Micronutrient Supplementation on birthweight and gestational duration in Nepal: double-blind, randomized controlled trial](#)
- c) [Effect of antenatal Multiple Micronutrient Supplementation on anthropometry and blood pressure in mid-childhood in Nepal: follow-up of a double-blind randomized controlled trial](#)
- d) [Effects of antenatal Multiple Micronutrient Supplementation on children's weight and size at 2 years of age in Nepal: follow-up of a double-blind randomized controlled trial](#)
- e) [The long-term effects of antenatal multiple micronutrient supplementation in Nepal. Thesis submitted for the degree of Doctor of Philosophy, University College London, 2011-2014](#)

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The information and country-level data provided herein were received from our partners as of 2025 and are shared with permission for public dissemination. This profile will be updated periodically. If you have updates or additional information to share, please [fill out this feedback form](#). For questions, contact us at [HMHB@micronutrientforum.org](mailto:HMHB@micronutrientforum.org).

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