

Ensuring strong systems to monitor the introduction & scale up of MMS

Recommendations for action



INTRODUCTION

This brief is intended for stakeholders from government and partners engaged in the rollout and scale-up of maternal MMS in place of IFA in antenatal care (ANC) who are positioned to advocate for changes to information systems.

Nepal's national MMS roadmap begins with implementation in two provinces in 2026 and scales to all seven provinces by 2030. To provide essential information on MMS implementation, Nepal's existing information systems need to be updated and strengthened. (Figure 1) Stronger systems will support evidence-informed decision making and ensure that maternal nutrition programs effectively reach women in need.

There are unique information needs across different stages of MMS introduction and scale-up. During the transition, information systems will need to capture parallel implementation of IFA and MMS and early performance signals. Once MMS is implemented

KEY MESSAGES

- The transition in protocol from IFA to MMS for pregnant women is an opportunity to strengthen the information systems used to monitor ANC services in Nepal
- Nepal's nutrition community must advocate for priority changes to national information systems including PAMS/eLMIS, HMIS, household surveys, and health facility surveys; requests must align with each data source's planning and implementation cycle
- Health workers will need training and supervision around updates in reporting and information systems including interim approaches to track MMS
- Mobile phone surveys may be a useful tool to monitor supplement receipt and adherence at more frequent intervals during the early phases of introduction and scale-up
- Establishing feedback loops to health facilities about submitted data may improve data quality and promote use of data to strengthen service delivery at all levels of the system

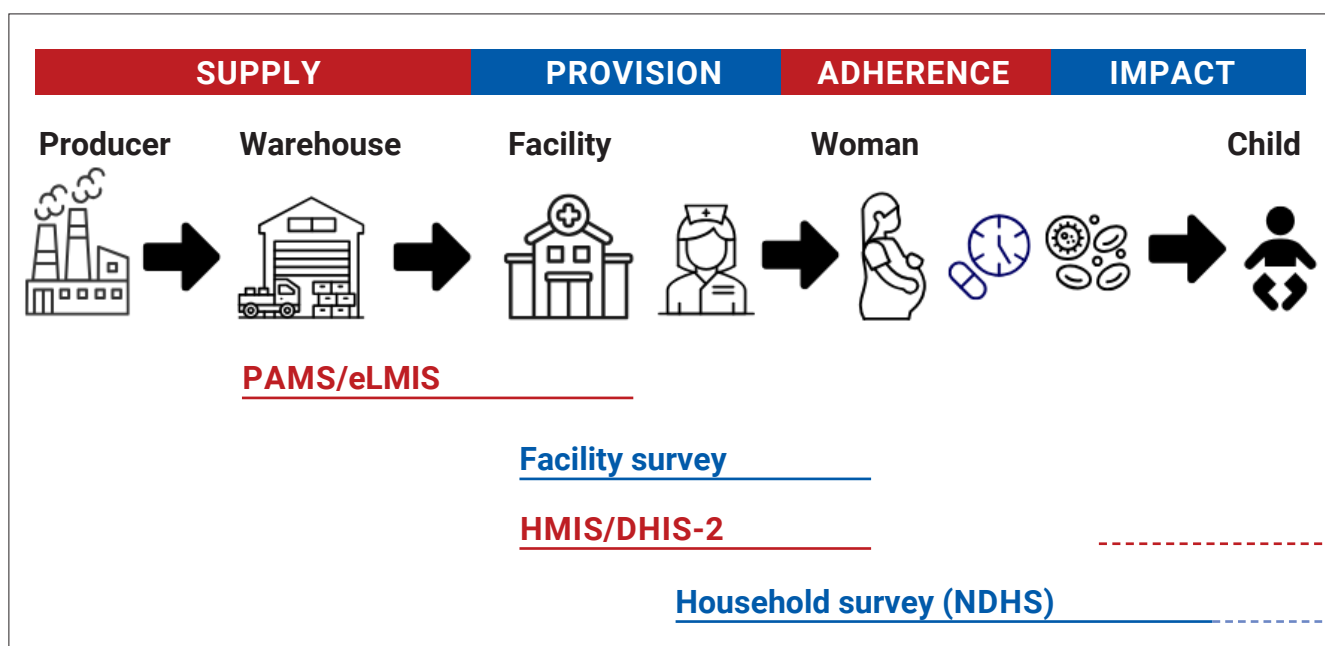


Figure 1: Data sources used to monitor along the MMS implementation pathway

at scale, monitoring should focus on sustained MMS supply, receipt, coverage, adherence, and implementation quality.

Below we present recommendations for each of the major data sources contributing to Nepal's health information system. Recommendations are based on a landscaping, implementation research, and engagement with Ministry of Health and Food Safety (MoHFS) maternal health and information systems stakeholders at national and provincial levels.¹ This work was carried out in 2025 by Anweshan, Johns Hopkins University, and Helen Keller International.

DATA SOURCES & INDICATORS

Four unique but complementary administrative and survey data sources are needed to obtain a complete picture of MMS implementation in Nepal.

PAMs/eLMIS collects real-time data on the *availability* of each type of supplement at central, provincial, and health facility level, and on stock outs (*MMS supply*).

Recommendation:

- Add MMS to the PAMS/eLMIS system,
- Keep IFA in the PAMS/eLMIS system; IFA is used for anemia treatment and postpartum supplementation.

HMIS /DHIS-2 collects data on *which* supplements women are given, *how many* they are given, and *when in pregnancy* supplements are given (*provision of MMS*).

Recommendation:

- In the next major HMIS/DHIS-2 revision, MMS should be added to all relevant tools: maternal newborn health (MNH) card, register, reporting forms. Each tool should have a way to distinguish between supplement type (IFA vs. MMS). (See recommended data elements in Tables 1 & 2),
- Adherence data should not be captured in registers for reporting purposes. This adds to health worker time burden. Also, women tend to overreport adherence to health providers; data quality is not likely sufficient for systems-wide monitoring. As part of counseling about MMS/IFA, health workers should ask women how often they are taking their supplements. Counseling notes for individual follow-up can be captured on a redesigned MNH card,
- In the interim, before updated tools are disseminated, train and supervise health workers in how to note distinction between IFA and MMS and quantity provided in each tool,
- The last major HMIS revision was in 2021/22. The introduction of MMS provides an opportunity to revise ALL data elements related to ANC,
- During the first phase of the MMS introduction (2026/2027), carry out implementation research to inform redesign of all ANC data elements in the MNH card, HMIS registers and reporting tools. The research should focus on the usability of the tools by health workers and information systems staff and for the MNH card, comprehension by women.

Table 1: Recommended updates to data elements for HMIS/DHIS-2 data collection tools

RECORDING TOOL	RELEVANT DATA ELEMENTS
HMIS 3.5 Maternal and Newborn Health (MNH) Card	■ Distinct fields for each type of micronutrient supplement and quantity provided at ANC visits (IFA/MMS/calcium/folic acid) ■ Field for anemia test result/diagnosis ■ Field for notes about adherence counseling
HMIS 3.6 Maternal & Newborn Health Register	■ Fields for each type of micronutrient supplement and quantity provided at ANC visits (IFA/MMS/calcium/folic acid) ■ Fields for gestational age at each ANC visit; categorical classification may be sufficient ■ Fields for anemia testing/method/result ■ Field for anemia treatment with iron ■ Field for notes about adherence counseling
HMIS 4.1 Outreach Clinic Register²	■ Field for IFA/MMS tablet distribution, including quantities/new and repeated.
HMIS 4.2 FCHV Service Register	■ Field for IFA/MMS tablet distribution, including quantities

1. Access landscaping reports here: <https://datadent.org/resource/advancing-mms-monitoring-in-nepal/>

2. Note: repeated may not apply to MMS given in 180 bottle

Table 2: Recommended updates for indicators in HMIS/DHIS-2 reports

REPORTING FORM	RECOMMENDED INDICATORS
HMIS 9.2 Outreach Clinic Report³	Number of pregnant women distributed IFA/MMS tablets/new vs. repeated
HMIS 9.3 Basic Health Facility Reporting Form	Pregnant women receiving IFA/MMS tablets for the first time
HMIS 9.4 Public Hospital Reporting Form	Pregnant women receiving IFA/MMS tablets for the first time before 20 weeks gestational age
HMIS 9.5 Non-Public Hospital Reporting Form	- Pregnant women receiving 180 IFA/MMS tablets - Number of pregnant women tested for anemia - Number of pregnant women treated for anemia with iron

There are concerns about the quality of HMIS/DHIS-2 data. Data use and data quality are inter-related; data must be used for data quality to improve. Health workers need clear guidance, practical training and supportive supervision to meet recording and reporting requirements. It is equally important to promote direct use of data by facilities and ANC providers and to establish routine feedback loops, so facilities receive timely feedback on the data they submit. Implementation research can be used both to design and refine data collection and reporting tools and also to design tools and processes to promote data use.

National household surveys such as the Nepal Demographic and Health Survey can collect data

across the entire population on whether women receive any ANC services (*contact*), when during pregnancy they start micronutrient supplementation (*MMS initiation*), which supplements women receive (*MMS provision*) and how often they take their supplements (*MMS adherence*).

Recommendation:

Revise indicators and survey questions to capture data on MMS and IFA in both currently pregnant and recently delivered women with a birth in the last 2 years. See Table 3 for overview. Detailed household survey indicator guidance, including indicator definitions and question wording, are available in a separate guidance document.⁴

Table 3: Recommended indicators for national surveys

DOMAIN	RECOMMENDED INDICATORS	POPULATION	COMMENT
Core indicators			
Receipt	% received any iron-containing supplement during pregnancy	- Currently pregnant - Women with birth in last 2 years	- Disaggregate MMS vs. IFA - If feasible, disaggregate currently pregnant women by trimester
Timing of initiation	% who started iron-containing supplement by 2nd trimester (< 5 months gestation)	- Currently pregnant - Women with birth in last 2 years	Need contextualized visual aids to help respondents distinguish supplement types
Adherence	% consuming iron-containing supplements at least X days in the previous month	Currently pregnant	
Optional Indicators			
Source	% who obtained iron-containing supplements, by source	- Currently pregnant - Women with birth in last 2 years	- Disaggregate MMS vs. IFA - If feasible, disaggregate currently pregnant women by trimester
Counseling	% who received counseling about iron-containing supplements during ANC	- Currently pregnant - Women with birth in last 2 years	

3. Note: repeated may not apply to MMS given in 180 bottle

4. <https://datadent.org/resource/compendium-of-nutrition-intervention-coverage-indicators-questions-for-household-surveys/>

Health facility surveys such as the Nepal Health Facility Survey (NHFS), last conducted in 2021, can collect data on the availability of supplements in health facilities (*MMS supply*) and, if observations are included, on provision and quality of counseling (*quality of care*).

Recommendation:

- Revise indicators and survey tools to capture 1) availability of MMS and IFA in facility inventory tool and 2) quality of delivery of iron-containing supplements including counseling in observation tool.

ENHANCED MONITORING DURING TRANSITION

The Nepal MoHFS wants more frequent data on adherence than the periodic national surveys will provide. Given that collection and reporting of adherence through the HMIS/DHIS-2 is not recommended, alternate sources are needed for this information. Partners may be well positioned to support enhanced monitoring efforts, particularly during the transition period.

We recommend exploring mobile phone surveys as a relatively low-cost approach to monitoring MMS/IFA receipt, adherence and counseling coverage among women.⁵ Surveys could be conducted every 4-6 months in provinces where MMS has been introduced. It will be necessary to access mobile phone numbers for women, which might be collected, for example, during ANC visits. For areas where mobile phone access is a barrier, consider engaging community health workers and community members in monitoring activities.⁶

CALL TO ACTION: ADDRESSING INFORMATION SYSTEMS IN THE NATIONAL MMS ROADMAP

The transition from IFA to MMS in Nepal is an opportunity to strengthen the information systems used by all levels of the health system to monitor ANC. The roadmap for MMS scale-up in Nepal should include detailed recommendations for changes to administrative and survey data sources and plans for interim monitoring. Implementation research can support updates to tools and systems. Collaboration between the MoHFS, implementing partners, and data partners will support effective implementation of MMS and better outcomes for women and children.



5. Research Brief: Women's recall of iron-containing supplement adherence during pregnancy: findings from a validation study in Nepal. Access here: <https://datadent.org/tools-resources/nepal-mms-monitor-landscape/>

6. Baptiste S, Manouan A, Garcia P, Etya'ale H, Swan T, Jallow W. Community-Led Monitoring: When Community Data Drives Implementation Strategies. Curr HIV/AIDS Rep. 2020 Oct;17(5):415-421.