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# **HEALTH MANAGEMENT INFORMATION SYSTEM FOR NUTRITION**

## **Facilitator's Manual**

**2017**

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## Foreword

Nutrition has been categorized as a cross-cutting issue in the National Development Plan (NDP II), Vision 2040 and under the Uganda National Action Plan (UNAP 2011–2016). The Ministry of Health Nutrition Unit, in collaboration with the Division of Health Information, reviewed nutrition data elements within the Health Management Information System (HMIS) in 2014 to streamline those that are captured at the health facility level and have them reported through the District Health Information System 2 (DHIS2) where national-level stakeholders would be able to utilize them.

Among priority interventions for nutrition in Uganda are reporting, monitoring and evaluation which include data collection—largely through the HMIS—to track progress of nutritional status of the population and coverage of nutrition services offered through the country's health structure. Until recently data management has not received adequate attention, especially capacity building among facility-based health workers. Poor data quality or no data at all have made planning, decision making, and implementation for nutrition services a challenge.

This 'HMIS for Nutrition' package aims to build the knowledge and skills of health workers to be able collect, compile, and report timely, complete, and quality nutrition data, and to help them understand the benefits of collecting and reporting quality data for evidence-based decision making. Quality data and the capacity to use them will greatly improve coverage and delivery of nutrition services based on informed decision making, thus contributing to elimination of malnutrition.

I hereby call upon the users of this package to ensure that all health workers are trained to collect, report, and reflect upon nutrition data to make decisions that can end malnutrition in Uganda.



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## Acknowledgements

*The Health Management Information System (HMIS) for Nutrition Facilitators' Manual* (2016) is based on Ministry of Health (MOH) HMIS Health Unit and Community Procedure Manual, Volume 1 (October 2014). The manual highlights nutrition data as guided by the Integrated Management of Acute Malnutrition Guidelines (2016), Maternal Nutrition Guidelines (2010), Integrated Guidelines on Antiretroviral Therapy, Prevention of Mother-to-Child Transmission of HIV (2010), Infant and Young Child Feeding (IYCF) Guidelines (2012), and the Guidelines in Integration of Nutrition Assessment, Counselling, and Support into Routine Service Delivery (2016).

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## Acronyms

<b>Ag.</b>	Acting
<b>AMC</b>	Average Monthly Consumption
<b>ANC</b>	Antenatal Care
<b>ART</b>	Antiretroviral Therapy
<b>ARV</b>	Anti-retroviral
<b>BMI</b>	Body Mass Index
<b>CF</b>	Complementary Feeding
<b>CSB</b>	Corn Soya Blend
<b>CSO</b>	Civil Society Organization
<b>DBS</b>	Dry Blood Spot
<b>DHT</b>	District Health Team
<b>DHIS</b>	District Health Information System
<b>DOT</b>	Directly Observed Therapy
<b>DR</b>	Drug Resistant
<b>EBF</b>	Exclusive Breastfeeding
<b>EDD</b>	Expected Date of Delivery
<b>EID</b>	Early Infant Diagnosis
<b>EMHS</b>	Essential Medicines and Health Supplies
<b>eMTCT</b>	Elimination of Mother to Child Transmission
<b>FBF</b>	Fortified-based Food
<b>FEFO</b>	First Expiry, First Out
<b>GMP</b>	Growth Monitoring and Promotion
<b>HAZ</b>	Height-for-age z-score
<b>Hb</b>	Haemoglobin
<b>HCII</b>	Health Centre II
<b>HCIII</b>	Health Centre III
<b>HCIV</b>	Health Centre IV
<b>HISP</b>	Health Information Systems Program
<b>HIV</b>	Human Immuno-Deficiency Virus
<b>HMIS</b>	Health Management Information System
<b>HSD</b>	Health Sub-district
<b>ICCM</b>	Integrated Community Case Management
<b>IMAM</b>	Integrated Management of Acute Malnutrition
<b>IMCI</b>	Integrated Management of Childhood Illnesses
<b>INR</b>	Integrated Nutrition Register
<b>IPT</b>	Intermittent Preventive Treatment/Therapy
<b>ITC</b>	Inpatient Therapeutic Care
<b>IYCF</b>	Infant and Young Child Feeding
<b>JMS</b>	Joint Medical Stores
<b>LLIN</b>	Long Lasting Insecticide treated Net

<b>MAM</b>	Moderate Acute Malnutrition
<b>MCH</b>	Maternal Child Health
<b>MDR</b>	Multi-Drug Resistance
<b>MF</b>	Mixed Feeding
<b>MNC</b>	Maternal Nutrition Counselling
<b>MoH</b>	Ministry of Health
<b>MUAC</b>	Mid Upper Arm Circumference
<b>NACS</b>	Nutrition Assessment Counselling and Support
<b>NGO</b>	Nongovernmental Organization
<b>NLB</b>	No Longer Breastfeeding
<b>NMS</b>	National Medical Stores
<b>NP</b>	Normal Pregnancy
<b>OI</b>	Opportunistic Infection
<b>OPD</b>	Outpatient Department
<b>OTC</b>	Outpatient Therapeutic Care
<b>PDSA</b>	Plan-Do-Study-Act
<b>PLHIV</b>	Persons Living with HIV
<b>PNC</b>	Postnatal Care
<b>PNFP</b>	Private Not for Profit
<b>QI</b>	Quality Improvement
<b>RF</b>	Replacement Feeding
<b>RUSF</b>	Ready-to-Use Supplementary Food
<b>RUTF</b>	Ready-to-Use Therapeutic Food
<b>SACCO</b>	Savings and Credit Cooperatives
<b>SAM</b>	Severe Acute Malnutrition
<b>SD</b>	Standard Deviation
<b>SFP</b>	Supplementary Feeding Programme
<b>TB</b>	Tuberculosis
<b>UBOS</b>	Uganda Bureau of Statistics
<b>UCP</b>	Uganda Clinical Guidelines
<b>UNAP</b>	Uganda Nutrition Action Plan
<b>UNEPI</b>	Uganda National Expanded Programme on Immunisation
<b>USAID</b>	U.S. Agency for International Development
<b>VHT</b>	Village Health Team
<b>W</b>	Weaning
<b>WAZ</b>	Weight-for-age z-score
<b>WFL</b>	Weight-for-length z-score
<b>WHO</b>	World Health Organization
<b>WHZ</b>	Weight-for-height z-score
<b>WASH</b>	Water, Sanitation, and Hygiene
<b>YCC</b>	Young Child Clinic

## Course Introduction

The Ministry of Health (MOH) has over the past two years increased the number of nutrition data elements captured in the Health Management Information System (HMIS) in a bid to strengthen the monitoring and evaluation of nutrition service delivery within the health sector. This contributes towards Objective 4 of the Uganda Nutrition Action Plan (2011) (UNAP) that calls for strengthening the policy, legal, and institutional frameworks and the capacity to effectively plan, implement, monitor and evaluate nutrition programs. Nutrition data elements were introduced into various registers positioned at the key health facility contact points, including the Outpatient Department (OPD), antenatal clinic (ANC), postnatal clinics (PNC), immunization/young child clinics, maternity wards, HIV clinics, and inpatient wards, among others, in addition to the standalone Integrated Nutrition Register.

A strong Health Information System allows health personnel to capture, analyse, and share information about the health system, service provision, beneficiaries, and the overall health status of the population. There are, however, nutrition data collection and reporting gaps at both community and facility levels, in part attributable to the absence of a standardized training manual on the nutrition data elements in the HMIS, inadequate availability of nutrition registers, poor quality data, variation in interpretation of data, and minimal demand for nutrition data, let alone use of these data. The revised HMIS (2014) is to ensure that data on nutrition indicators are available through the HMIS/DHIS2. It is essential, therefore, that all data producers/processors have the necessary training, and mentoring on the reporting tools to maximize use.

MOH has developed a standardized nutrition data management training package based on the HMIS to strengthen reporting and aspects of data quality from the health facility to national levels. This package will be used to build capacity of various cadres at health facility, district and national levels responsible for collection and reporting nutrition data.

### Aim

This manual is intended to guide capacity building in nutrition data collection, aggregation, routine reporting, and use at all levels.

### Objectives

- To provide an overview of health service delivery, HMIS and its linkage to nutrition.
- To equip participants with skills to assess nutritional status using anthropometric equipment and tools.
- To introduce the service providers to nutrition-related data capture and collection tools.
- To equip service providers with knowledge and skills on accurate data capture, compilation, and reporting.
- To introduce the use of Quality Improvement principles in HMIS.

## Course Structure

The guide is structured in five modules to be covered in five days.

- Overview of Health Information Systems
- Health Management Information System (HMIS) for nutrition
- Key nutrition data sources
- Routine nutrition data monitoring and reporting
- Nutrition data quality

## Target Audience

- Frontline health unit service providers: medical officers, medical clinical officers, nurses, midwives, nutritionists, records assistants
- District Health Team (DHT) members: district health officer, biostatistician, Health Sub-district (HSD) in-charges, Health Sub-district HMIS focal persons

## Facilitators

The course requires four facilitators for a class of 30 participants.

The course facilitation team should have Facilitation skills and one or combination of the following competencies:

- Knowledge and experience in nutrition and associated diseases—Integrated Management of Acute Malnutrition (IMAM) and/or Nutritional Assessment, Counselling, and Support (NACS)
- Knowledge in Quality Improvement
- Knowledgeable in HMIS (national HMIS trainer)
  - Knowledgeable in all source documents and registers
  - Knowledgeable in reporting timelines and DHIS2
  - Ability to detect inconsistencies in health records

## Training Materials

Training materials to include:

1. HMIS-Nutrition Facilitator's Manual (for facilitators only)
2. HMIS-Nutrition Reference Manual (for facilitators and participants)
3. Teaching Aids
  - HMIS training slides

- LCD project (When unavailable print out the slides (six to a page) to distribute to participants to keep.)
  - Extension cable
  - Computers (one per group of five participants)
4. Anthropometric Equipment
- Scales (infant, child, and adult)
  - BMI wheels
  - Height/length boards
  - MUAC tapes (for age categories)
  - Dolls (at least three)
  - Read out examples of anthropometric measurements
5. Anthropometric (z-score) Charts and Tables
- Weight-for-age (WAZ)
  - Height-for-age (HAZ)
  - Weight-for-height (WHZ)
  - Weight-for-length (WFL)
  - BMI for Age
6. IEC materials
- Maternal Infant and Young Child Feeding (IYCF) counselling cards
  - Nutritional Assessment, Counselling, and Support counselling card
  - Nutrition for PLHIV/AIDS and/or Tuberculosis
7. Forms
- Timetable template for a five-day course
  - Pre- and post-test
  - Daily Evaluation
  - End-course Evaluation
  - Printed Case Scenarios
8. HMIS tool packs with copies
- Integrated Nutrition Register (INR)
  - Child Health Register
  - ART Registers (Pre-ART, Antiretroviral Therapy [ART], and Early Infant Diagnosis [EID])
  - Integrated Maternity Register (ANC and PNC)
9. Instructions on practicums and field practical
- Copies of Instruction for Practicum on DHIS2
  - Copies of Instructions for Practicum on Anthropometric Data
  - Copies of Instructions on Field Practical

## Introductory Session (Climate Setting)

This session aims at introducing the course and 'breaking the ice', to create a conducive learning environment.

### Session Objectives

By the end of this session, participants should be able to:

		Time allocated
a.	Know each other and complete registration forms	20 minutes
b.	Identify leaders to support the training	15 minutes
c.	Understand the course duration, course structure, expectations and training methodology	10 minutes
d.	Determine course norms	5 minutes
	Total	<b>50 minutes</b>

### Materials

Slides 1–8: Training in the Health Management Information System for Nutrition, Course Introduction

### Facilitation Steps

#### Facilitation Step 1

- *Introduce yourself and welcome participants to the training.*
- *Ask participants to introduce themselves and specify the names they prefer to be called during the training.*
- *Ask participants to change sitting positions. **NOTE:** This is done to minimize side discussions among participants.*
- *Distribute the course registration forms and ask participants to complete the forms. Remind participants that they will sign them daily.*

#### Facilitation Step 2

- *Guide participants to identify:*
  - *Leaders who will support the facilitators during the course; record names and positions of selected leaders on a flip chart and post on the wall.*
  - *Training norms/rules for the course; record the norms on a flip chart.*
- *Ask participants to state their expectations for the training and any factors they think may interfere with their participation.*
  - *Record participant expectations and barriers on flip charts. Highlight frequency of the expectations.*
  - *Address any participation barriers.*
- *Discuss participant expectations with focus on course goal, objectives, structure, duration, training methodology, and training agenda.*

- *Ask participants to determine the course norms. Record participant expectations on a flip chart.*
- *Emphasize the need for daily and end-course evaluations. Distribute copies of the daily training evaluation forms.*

## Module 1: Overview of Health Information System

This module has two sessions and introduces participants to general principles in health data management. The module highlights data sources, data processing, data flow and reporting mechanisms. The module provides details in health management based on the Health Management Information System (HMIS).

Overall objectives

1. To introduce HMIS reporting structure, data source, flow, reporting and timelines
2. To demonstrate the District Health Information System (DHIS2) software for data entry

### Session 1.1: The Health Management Information System (HMIS)

#### Session Objectives

By the end of this session, participants should be able to:

		Time allocated
a.	Explain the objectives of HMIS, its framework, and reporting structure	25 minutes
b.	Describe HMIS data sources, data flow, routine reports, and timelines of reporting	35 minutes
	<b>Total</b>	<b>60 minutes</b>

#### Materials

Slides—Session 1.1, The Health Information System

#### Facilitation Steps

##### Facilitation Step 1

- *Introduce the session and session objectives (Slides 1 and 2).*
- *In plenary, ask participants to discuss the goal, use, and framework of the HMIS (Slide 3).*
- *Discuss HMIS, its goal, use, and framework (Slides 4–9).*

##### Facilitation Step 2: Group Work (15 minutes)

- *Divide participants into two groups (Slide 10)*
  - *Group 1: Identify the various sources of HMIS data.*
  - *Group 2: Discuss the flow of HMIS data in Uganda's health system.*
  - *Groups present in plenary.*
- *Wrap up the discussion (Slides 11–18).*

## Session 1.2: The District Health Information System 2 (DHIS 2)

### Session Objectives

By the end of this session, participants should be able to:

		Time allocated
a.	Describe the evolution of eHMIS	5 minutes
b.	Discuss the implementation of DHIS2 in Uganda	25 minutes
c.	Explain the key dimensions of DHIS2	20 minutes
d.	Navigate the DHIS2 software	120 minutes
	<b>Total</b>	<b>170 minutes</b>

### Materials

- Slides—Session 1.2 The District Health Information System (DHIS2)
- Case scenarios (Case Scenario Set 4: Reference Manual page75)
- LCD projector
- Computers
- Reliable Internet connection

### Facilitation Steps

#### Facilitation Step 1

- *Introduce the session and session objectives (Slides 1 and 2).*
- *Introduce the evolution of eHMIS (Slides 3 and 4).*
- *In plenary, describe DHIS2, terminologies, core dimensions, and its application in health information management (Slides 5–19).*

#### Facilitation Step 2 (Practicum on DHIS2), Slide 20

- *Divide participants into groups based on their respective districts (questions are for all groups).*
- *Ensure each group has:*
  1. *One computer for the exercise*
  2. *Internet connection for accessing the DHIS2 software*
- *Instruct all the groups to:*
  - *Choose a group leader.*
  - *Read, understand, and follow instructions on the practicum on DHIS 2. (Refer participants to page Reference Manual page 9 for the navigation steps.)*
  - *Create a folder on the computer and name it 'Nutrition Training' where all solutions will be saved.*
  - *Read, understand, and respond to the case scenarios provided.*

- *Group leader should ensure that each member takes a turn to lead and implement the solution using the identified computer.*
- *Each group will have a chance to present and discuss the solutions for each question.*

## Module 2: Health Management Information System (HMIS) for Nutrition

This module has two sessions and introduces participants to the nutrition situation in Uganda, government efforts towards reduction of malnutrition, and how to assess for the common types of malnutrition captured in the HMIS. The module highlights methods to assess and classify nutritional status, including measurement using anthropometric equipment and examining for common clinical signs of malnutrition. The module also introduces the common nutrition counselling codes used in HMIS.

### Overall objectives

- To describe the nutrition situation in Uganda and efforts to reduce malnutrition
- To describe the identification of common types of malnutrition captured in the HMIS
- To demonstrate the use of common anthropometric equipment, measurements, indices, and interpretation of indices to determine nutritional status of individuals

### Session 2.1: Introduction to the Nutrition Situation in Uganda

#### Session Objectives

By the end of this session, participants should be able to:

		Time allocated
a.	Explain the extent and trend of malnutrition in Uganda	15 minutes
b.	Describe national-level efforts towards reduction of malnutrition	15 minutes
	<b>Total</b>	<b>30 minutes</b>

#### Materials

Slides—Session 2.1 Introduction to the Nutrition Situation in Uganda

#### Facilitation Steps

- *Introduce the session and its objectives (Slides 1 and 2).*
- *Discuss the data showing trends of malnutrition among children under 5 and women of reproductive age (Slides 3–10).*
- *Brainstorm: What are some government efforts to address malnutrition in Uganda? (Slide 11)*
- *Discuss the enabling environment and national efforts to improve the status of malnutrition (Slides 12–15).*

## Session 2.2: Basics of Nutrition

### Session Objectives

By the end of this session, participants should be able to:

		Time allocated
a.	Describe common clinical signs associated with severe acute malnutrition (SAM)	35 minutes
b.	Demonstrate ability to use common anthropometric equipment to take accurate measurements	50 minutes
c.	Use anthropometry to determine nutritional status of individuals	75 minutes
d.	Describe the commonly used nutrition counselling terms in HMIS	15 minutes
	<b>Total</b>	<b>175 minutes</b>

### Materials

- Anthropometric equipment
- Anthropometric reference charts
- Anthropometric reference tables
- Exercises on assessment and classification (Reference Manual, p.24)
- Slides—Session 2.2 Basics of Nutrition

### Facilitation Steps

#### Facilitation Step 1

- *Introduce session and session objectives (Slides 1 and 2).*
- *Brainstorm (Slide 3)*
  - *What is malnutrition?*
  - *What are the categories of malnutrition?*
- *Discuss categories of malnutrition (Slides 4 and 5).*
- *Show pictures of malnutrition and in plenary, ask participants to identify the clinical signs of malnutrition (Slides 6–11).*
- *Show pictures on checking for nutrition oedema and emphasize oedema classification (Slides 12–14).*
- *Discuss anthropometry.*
  - *Display pictures or samples of the common anthropometric equipment (Slides 15–19).*
  - *Explain the importance of capturing age and sex in anthropometry.*
- *Demonstrate to participants how to use equipment to take accurate measurements of infants, children, adults, pregnant and lactating women, and the elderly (weight, height/length, MUAC), (Slides 20–23).*

- Divide participants into five groups for an anthropometry practicum, ensuring an appropriate mix of skills in each group. Let each group take and record anthropometry for all the group members (and dolls if available) (Slide 24).

### Facilitation Step 2

- Discuss the different building blocks for the anthropometric indices (Slides 25 and 26).
- Discuss BMI: calculation, use of BMI Wheel (Slides 27–32).

#### Answers to BMI drill (Slide 28)

a) Peter: 22.5, b) Allen: 31, c) Joanne: 17, d) Kim 20

- In the same five groups, use the anthropometric practicum data and ask each group to practice:
  - Calculating BMI
  - Using BMI Wheel

### Facilitation Step 3

- Discuss z-score concept (Slides 33–34).
- Introduce the anthropometric charts and tables (Slide 35).
- Demonstrate the use of the charts and tables in determining nutritional status (Slides 36–39).
- Refer participants to exercises on assessment and classification (Reference Manual, p.24).
- Read out at least three scenarios under each exercise and ask participants to respond accordingly (Slide 40). Ask each participant to try out the other scenarios overnight. On the following day, remember to recap and address any challenges faced by the participants.

#### Answers to Assessment and Classification Drills

1. Identify the anthropometric chart/table to find the z-scores for the following clients and classify their nutritional status.

		Appropriate table/chart	Z -score	Nutrition status
a.	A boy 1 year, with length of 62 cm and weight of 5 kg	WFL	< -3	SAM
b.	A girl 3 years, with weight of 7.6 kg and height of 70 cm	WFH	-1	Normal
c.	A boy 4 years, 8 months who weighs 11.8 kg	WFA	< -3	Severe Underweight
d.	A girl 8 months who weighs 7.2 kg	WFA	>- 1 < 1	Normal

2. Use the BMI Wheel to classify nutritional status of the following clients.

	Client	BMI	BMI-for-age	Nutrition status
a.	A male 17 years, weighing 43.2 kg with a height of 160 cm		16.9	Moderate
b.	A girl 14 years, 7 months, weighing 38 kg with a height of 145 cm		29.5	Obese
e.	A man 25 years, with a weight of 55 kg and height of 158 cm	22		Normal

3. Classify the nutritional status of the following clients.

	Client	Weight-for-length/height z-score	BMI	BMI-for-age	Classification
a.	A boy 1 year, 74 cm long, weighing 7.2 kg	WFL (< -3)			SAM
b.	A girl 6 months, 55 cm long, weighing 3.9 kg	WFL (> -2 < -1) Or Between -2 and -1			At risk/mild
c.	A girl 2 years, 3 months, 102 cm tall, weighing 12 kg	WFL (< -3)			MAM
d.	A girl 10 years, 174 cm tall, weighing 47 kg			15.5	Normal
e.	A man 45 years, 162 cm tall, weighing 36 kg		13.7 (14)		SAM
f.	A man 19 years, 154 cm tall, weighing 35 kg		14.8 (15)		SAM
g.	A pregnant girl, 16 years, 154 cm tall, weighing 49 kg		N/A	N/A	N/A
h.	A lactating woman, 157 cm tall, weighing 70 kg		N/A	N/A	N/A
i.	A boy 8 years, 156 cm tall, weighing 46 kg			18	Overweight
j.	A girl 10 years, 151 cm tall, weighing 50 kg			22	Overweight

#### Facilitation Step 4

- Summarize the cut-offs for nutritional classification (Slides 41–43).
- Discuss nutritional counselling and HMIS nutritional counselling codes (Slides 44–50).

## Module 3: Key Nutrition Data Sources

This module has four sessions and introduces participants to the nutrition data elements and sources in the HMIS tools. The module introduces and:

- Describes the nutrition data elements in the HMIS registers, and demonstrates accurate data capture and processing using tally sheets
- Demonstrates the use of essential medicines and health supplies forms, including Stock Cards, Daily Dispensing Log, and request forms

Overall objective:

- *To describe nutrition data elements in community and facility tools*

### Session 3.1: Community Data Collection Tools

#### Session Objectives

By the end of this session, participants should be able to:

		Time allocated
a.	Describe the nutrition data elements in the community tools	30 minutes

#### Materials

- Slides—3.1 Community Data Collection Tools
- Copies of
  - VHT/ICCM Register (HMIS 097)
  - Quarterly Household Summary (HMIS 097a)
  - VHT/ICCM Quarterly Report (HMIS 097b)

#### Facilitation Steps

- *Introduce the session and session objectives (Slides 1 and 2)*
- *Brainstorm (Slide 3).*
- *Introduce the Community Data Tools (Slide 4)*
- *Distribute copies of the tools to all participants.*
- *Brainstorm: Ask participants to identify the columns with nutrition data elements in each of the tools. Write down their responses on a flip chart.*
- *Discuss the nutrition data elements in the community tools (Slides 5–10).*

**a) VHT/ICCM Register (HMIS 097)**

**Nutrition data elements in the VHT/ICCM Register**

- Column 8
- Column 9

**b) Quarterly Household Summary (HMIS 097a)**

**Nutrition data elements in the Quarterly Household Summary**

- Children summary section
  - Red MUAC/oedema
  - Received vitamin A
- ICCM section
  - Children under 5 years with red MUAC
  - Children under 5 years referred

**c) VHT/ICCM Quarterly Report (HMIS 097b)**

**Nutrition data elements in the VHT/ICCM Quarterly Report**

- Number of children under 5 years with red MUAC, disaggregated by gender

## Session 3.2: Primary Health Facility Data Sources

### Session Objectives

By the end of this session, participants should be able to:

		Time allocated
a.	Describe the nutrition data elements in the registers and cards	465 minutes

### Materials

#### Copies of

- Outpatient Register (HMIS form 031)
- Child Register (HMIS form 073)
- Integrated
  - Antenatal Register (HMIS form 071)
  - Maternity Register (HMIS form 072)
  - Postnatal Register (HMIS form 078)
- HIV-Exposed Infant Register (HMIS form 082)
- Clinical Monitoring Card for Exposed Infants
- Pre-ART Register (HMIS form 080)
- ART Register (HMIS form 081)
- HIV Care/ART Card
- Health Unit TB Register (HMIS form 096a)
- Drug Resistant (DR) TB Register (HMIS form 096b)

#### Slides

- Session 3.2 Primary Health Facility Data Sources
- Session 3.2a Primary Health Facility Data Sources: The OPD and Child Registers
- Session 3.2b Primary Health Facility Data Sources: Maternal Services Registers
- Session 3.2c Primary Health Facility Data Sources: HIV and TB Services

### Facilitation Steps

#### Facilitation Step 1

- *Introduce the session and session objectives (Slides 1 and 2).*
- *Brainstorm and write participant responses (Slide 3).*
  - *What are the nutrition contact points in a health facility?*
  - *What HMIS tools are found at these contact points?*
    - *Outline the contact points and the nutrition data tools (Slides 4–7)*
    - *Divide participants into five groups. Ensure appropriate skills mix in each group. Let each group review all the registers and cards below and identify the nutrition data elements based on the two categories: 1) nutrition-sensitive data elements, 2) nutrition-specific data elements.*

- *Outpatient Register (HMIS form 031)*
- *Child Register (HMIS form 073)*
- *Integrated*
  - *Antenatal Register (HMIS form 071)*
  - *Maternity Register (HMIS form 072)*
  - *Postnatal Registers (HMIS form 078)*
- *Exposed Infant Clinical Chart*
- *HIV-Exposed Infant Register (HMIS form 082)*
- *Pre-ART Register (HMIS form 080)*
- *ART Register (HMIS form 081)*
- *HIV Care/ART Card*
- *Health Unit TB Register (HMIS form 096a)*
- *Drug Resistant (DR) TB Register (HMIS form 096b)*

### Facilitation Step 2

- *In plenary, let each group present and describe the nutrition data elements for each of the registers and cards assigned (Slide 9).*
  - *Group 1: OPD, Child Register (Slides 1–14, Session 3.2a)*
  - *Group 2: Maternal Services Registers (Slides 1–16, Session 3.2b)*
  - *Group 3: Exposed Infant Clinical Chart, HIV-Exposed Infant Register (Slides 1–11, session 3.2c)*
  - *Group 4: HIV Care/ART Card, Pre-ART Register, ART Register (Slides 12–22, Session 3.2c)*
  - *Group 5: Health Unit TB Register, Drug Resistant TB Register (Slide 23–31, Session 3.2c)*
- *Invite comments from other group members.*
- *Discuss and wrap up each group presentation.*

## The OPD and Child Registers

### The Outpatient Register (HMIS form 031) (Reference Manual, p. 28)

#### Nutrition Columns in the OPD Register

Column 4	Age and Sex
Column 5	MUAC, Weight, Height/Length
Column 6	BMI, weight-for-age z-scores and height/length-for-age z-scores
Column 7	Blood Pressure and Blood Sugar
Column 14	New Diagnosis
Column 15	Drugs/Treatment

## Child Register (HMIS form 073) (Reference Manual, p. 29)

### Nutrition Columns in the Child Register

Column 4	Sex
Column 5	Age, Height/Length, Weight
Column 6	MUAC, weight-for-age z-score and height/length-for-age z-score
Column 7	Date of Birth
Column 17	Weight at Measles Vaccination
Column 18	Underweight (below -2SD line) on the Child Health Card
Column 19	Overweight (above +3SD line) on the Child Health Card
Column 20	Weight, MUAC, INR No.
Column 21	Fully immunized by 1 year
Column 23	Vitamin A Administration Dates
Column 24	Deworming
Remarks	

## Maternal Services Registers (ANC, Maternity, PNC)

### The Integrated Antenatal Register (HMIS form 071) (Reference Manual p. 31)

#### Nutrition Columns in the Integrated ANC Register

Column 11	Weight, MUAC, Height, INR No.
Column 12	Blood Pressure
Column 13	eMTCT Codes
Column 14a	Diagnosis
Column 16	Infant Feeding Counselling and Maternal Nutrition Counselling
Column 18	Haemoglobin
Column 22	IPT Dose
Column 23	Free LLIN
Column 24	Mebendazole Dose
Column 25	Iron/Folic Acid

### Integrated Maternity Register (HMIS form 072) (Reference Manual p. 33)

#### Nutrition Columns in the Integrated Maternity Register

Column 16	eMTCT Code
Column 18	Vitamin A Supplementation/MUAC/INR No.
Column 22	Immediate Skin-to-Skin Contact
Column 23	Breastfed ≤ 1hrs?
Column 25a	Counselling at Discharge
Column 25b	IYCF
Column 26	Weight (Wt)

## **Integrated Postnatal Register (HMIS form 078) (Reference Manual p. 34)**

### **Nutrition Columns in the Integrated Postnatal Register**

- Column 12: Weight and MUAC
- Column 13: eMTCT code
- Column 15: Routine administration
- Column 16a: Diagnosis
- Column 22: Infant feeding counselling, IYCF and maternal nutrition counselling

## **HIV and TB Services**

The registers used in the HIV/AIDS and TB service points include:

- Exposed infants Clinical Monitoring Chart
- HIV-Exposed Infant Register (HMIS form 082)
- Pre-ART Register (HMIS form 080)
- ART Register (HMIS form 081)
- Health Unit TB Register (HMIS form 096a)
- Drug Resistant (DR) TB Register (HMIS form 096b)

## **Exposed infants Clinical Monitoring chart (Reference Manual p. 36)**

### **Nutrition Sections in the Exposed Infant Clinical Chart**

- Summary Page: Feeding method in the sub-section of testing information
- Follow-up Section
- Feeding Code
- Growth Measures: Height, Weight, z-scores, MUAC

## **HIV-Exposed Infant Register (HMIS form 082) (Reference Manual p. 37)**

### **Nutrition Columns in the Exposed Infant Register**

- Column 17: Infant feeding status
- Column 23: Infant feeding status
- Column 28: Visit details

## **HIV Care/ART Card (Reference Manual p. 38)**

### **Nutrition Elements in the HIV Care/ART Card**

- Summary Page
- Follow up Education, Counselling Support, and Preparation for ARV Therapy
- Column 4: Weight, Height, MUAC/oedema
- Column 8: New OI, Other Problems, include nutritional problems
- Column 13: Other Medicines Dispensed (include nutritional supplements)
- Column 16: Refer or consult or link/provide (including nutritional support and infant feeding)

## **Pre-ART Register (HMIS form 080) (Reference Manual p. 39)**

### **Nutrition Columns in the Pre-ART Register**

Lower Space: CPT/INH and Nutritional Status

## **ART Register - (HMIS form 081) (Reference Manual p. 40)**

### **Nutrition columns in the ART register**

Column 7: Age  
Column 10: Weight/MUAC  
Column 16: eMTCT  
Column 20: Monthly Follow-up Status

## **Health Unit TB Register (HMIS form 096a) (Reference Manual p. 40)**

### **Nutrition Columns in the ART Register**

Column 6: Sex  
Column 7: Age  
Column 14: MUAC, weight-for-age z-score, height/length-for-age z-score, and INR No.

## **Drug Resistant (DR) TB Register (HMIS form 096b) (Reference Manual p. 41)**

### **Nutrition columns in the ART register**

Column 5: Age  
Column 6: Sex  
Column 18: Nutrition (MUAC/z-score) and INR No. before treatment  
Column 24: Initial Weight

## Session 3.3: Integrated Nutrition Register (INR) (HMIS form 077)

### Session Objectives

By the end of this session, participants should be able to:

		Time allocated
a.	Describe the data elements in the INR	45 minutes
b.	Demonstrate ability to accurately and completely fill the INR	60 minutes
	<b>Total</b>	<b>105 minutes</b>

### Materials

- Copies of the INR (HMIS form 077)
- Slides—Session 3.3 The Integrated Nutrition Register (INR)
- Copies of Case Scenarios (Case Scenario Set 1 – Reference Manual, page 73)

### Facilitation Steps

#### Facilitation Step 1

- *Introduce the session and session objectives (Slides 1–3).*
- *Divide participants into groups of five to six members (Slide 4).*
- *Distribute hard copies of the INR to each of the groups.*
- *Let each group study and discuss the data elements, and present in plenary.*
- *Summarize group work discussion (Slides 5–14).*

#### Facilitation Step 2: Case Scenarios (Reference Manual p. 73)

- *Refer participants to Appendix VI, Case Scenarios Set 1); assign a case scenario to each group and a blank copy of the INR.*
- *Let each group fill in the INR based on the assigned case scenario, and present in plenary.*
- *Ask for input from the other members (Slides 15–16).*

#### Columns in the INR

Column 1:	Client Number	Column 10:	Type of Nutrition Management
Column 2:	Date	Column 11:	Entry Care Point
Column 3:	Client Name	Column 12:	Nutritional Status at Enrolment
Column 4:	Client Address	Column 13:	HIV Status at Enrolment
Column 5:	Sex	Column 14:	ART Services at Enrolment
Column 6:	Age	Column 15:	Enrolment and Re-visits
Column 7:	Infant Feeding Practice	Column 16:	Assessment at Exit
Column 8:	Pregnancy/Lactating Status	Column 17:	Target Exit Criteria
Column 9:	Type of Admission	Column 18:	Exit Outcome and Date

## Session 3.4: Nutrition Tally Sheet (HMIS form 077a)

### Session Objectives

By the end of this session, participants should be able to:

		Time allocated
a.	Explain the data elements in the nutrition tally sheet	10 minutes
b.	Demonstrate ability to use the nutrition tally sheet	20 minutes
	<b>Total</b>	<b>30 minutes</b>

### Materials

- Copies of the Nutrition Tally Sheet (HMIS form 077a)
- Slides—Session 3.4 The Nutrition Tally Sheet
- Dummy INR

### Facilitation Steps

- *Refer participants to HMIS form 077a (Nutrition Tally Sheet).*
- *Distribute hard copies of the Nutrition Tally Sheet among the participants.*
- *Display a soft copy of the tally sheet and provide hard copies.*
- *Introduce and discuss each column and row.*

## Session 3.5: Essential Medicines and Health Supplies

### Session Objectives

By the end of this session, participants should be able to:

		Time allocated
a.	Demonstrate ability to accurately and completely fill the Stock card	45 minutes
b.	Demonstrate ability to accurately and completely fill the Requisition and Issue voucher	30 minutes
c.	Demonstrate ability to accurately and completely fill the Daily Dispensing log	30 minutes
d.	Demonstrate ability to accurately and completely fill Order form for EMHS	30 minutes
e.	Describe the purpose of other EMHS data tools	5 minutes
	<b>Total</b>	<b>140 minutes</b>

### Materials

- Copies of
  - Stock Card (HMIS form 015)
  - Stock Book (HMIS form 083)
  - Requisition and Issue Voucher (HMIS form 017)
  - Daily Dispensing Log (HMIS form 016), Order form (HMIS 085, order form for EMHS)
- Slides—Session 3.5 Essential Medicines and Health Supplies (EMHS)
- Copies of Case Scenarios (See Case Scenarios Set 2 and 3, Reference Manual p. 74)
- Flip charts and markers

### Facilitation Steps

#### Facilitation Step 1

- *Introduce the session.*
- *Distribute copies of the four tools above.*
- *Describe the data elements in each of the four tools.*

#### Facilitation Step 2

- *Refer participants to the case scenarios (Case Scenarios 2 and 3, Reference Manual page 74). Let each participant practice filling the tools using the information provided.*
- *Using a prepared flip chart let one participant demonstrate how to complete the Daily Dispensing Log.*
- *Address any gaps that arise.*

## Stock Card (HMIS form 015) (Reference Manual p. 46)

### Columns in the Stock Card

Column 1:	Health Unit Name	Column 6:	Item Code No.
Column 2:	Health Unit Code	Column 7:	Special Storage Conditions
Column 3:	Financial Year	Column 8:	Unit of Issue
Column 4:	Item Description	Column 9:	Maximum Stock Level
Column 5:	Pack Size	Column 10:	Minimum Stock Level

### Transaction information

Column 11:	Date	Column 16:	Losses/Adjustments
Column 12:	TO or FROM	Column 17:	Balance on Hand
Column 13:	Voucher Number	Column 18:	Expiry Date(s)
Column 14:	Quantity In	Column 19:	Batch Number
Column 15:	Quantity Out	Column 20:	Remarks
		Column 21:	Initials

## Requisition and Issue Voucher (HMIS form 017) (Reference Manual p. 48)

### Data elements in the Requisition and Issue voucher

Element 1:	Health Unit Name	Column 9:	Balance at Hand
Element 2:	Dept./Section/Ward/Dispensary	Column 10:	Quantity Required
Element 3:	Date	Column 11:	Quantity Issued
Element 4:	Ordered by (name, signature)	Column 12:	Unit Cost
Element 5:	Authorized By (name, signature)	Column 13:	Total Cost
Element 6:	Item Code No.	Column 14:	Issue Date
Element 7:	Item Description (name, formulation, strength)	Column 15:	Receipt Date
Element 8:	Previous Receipt	Column 16:	Name and Signature of Issuer
		Column 17:	Name and Signature of Receiver

## Daily Dispensing Log (HMIS form 016) (Reference Manual p. 49)

### Columns in the Daily Dispensing Log

Column 2:	Date
Column 3:	Patient Number
Column 4:	Dispensed Medicine
Column 5:	Dispenser Initials
Column 6:	Total

## Order form for EMHS (HMIS form 085) (Reference Manual p. 49)

### Columns in the Order form for EMHS

Column 1:	Order to NMS/JMS/others	Column 9:	Pack Unit
Column 2:	Facility Name	Column 10:	Pack Unit Price
Column 3:	District	Column 11:	Average Monthly Consumption (AMC)
Column 4:	Level	Column 12:	Quantity Needed
Column 5:	HSD	Column 13:	Total Cost
Column 6:	Date	Column 14:	Ordered By
Column 7:	Order Details	Column 15:	Approved By
Column 8:	Item Description	Column 16:	Confirmed By

## Module 4: Routine Nutrition Data Monitoring and Reporting

This module has four sessions and introduces participants to the routine nutrition data reporting requirements. The module discusses data elements, and reporting categories and highlights the nutrition sections in the general health facility routine reports.

**Overall objective:** To demonstrate the linkage between primary data sources and reporting requirements

### Session 4.1: The Health Unit Outpatient Monthly Report (HMIS 105) and Nutrition Addendum (HMIS 009)

#### Session Objectives

By the end of this session, participants should be able to:

		Time allocated
a.	Explain the data elements in the Health Unit Outpatient Monthly Report	45 minutes
b.	Describe the data elements in the Nutrition Addendum	30 minutes
	<b>Total</b>	<b>75 minutes</b>

#### Materials

- Copies of the Health Unit Outpatient Monthly Report (HMIS form 105)
- Nutrition Addendum (HMIS 009) available in the Reference manual (page 67)
- Slides—Session 4.1 The Health Unit Outpatient Monthly Report and Nutrition Addendum

#### Facilitation Steps

- *Brainstorm: Ask participants to turn to the Nutrition Addendum HMIS 009 (Ref. manual page 67) and the Health Unit Outpatient Monthly Report (HMIS 105).*
  - *Identify the source registers for the documents.*
  - *Describe the nutrition data elements in the two documents above.*
- *Discuss the data elements and categories in the Nutrition Addendum. Emphasize that the addendum aligns monthly reporting to the quarterly reporting requirements such as age categorization.*

## Session 4.2: Health Unit Nutrition Quarterly Summary (HMIS Table 20)

### Session Objectives

By the end of this session, participants should be able to:

		Time allocated
a.	Describe the data elements in the Health Unit Nutrition Quarterly Summary	30 minutes
b.	Demonstrate ability to complete the Health Unit Nutrition Quarterly Summary	45 minutes
	<b>Total</b>	<b>75 minutes</b>

### Materials

Copies of the Health Unit Nutrition Quarterly Summary (HMIS Table 20)

Copies of the Nutrition Tally Sheet

Copies of the filled in INRs

Slides—Session 4.2 The Health Unit Nutrition Quarterly Summary

### Facilitation Steps

- *Distribute copies of the Health Unit Nutrition Quarterly Summary (Table 20) among the participants.*
- *Display a soft copy of the Health Unit Nutrition Quarterly Summary and in plenary, discuss how aggregated data is filled in the summary.*
- *Explain the nutrition data elements in HMIS Table 20.*

The Health Unit Nutrition Quarterly Summary captures data under different titles.

Groups	
<b>Under 6 months</b>	Captures nutrition data for children < 6 months for each data category reported
<b>6–59 months</b>	Captures data for children 6 – 59 months for each nutrition data category reported
<b>5–18 years</b>	Captures nutrition data for children and adolescents, 5–18 years reported
<b>Totals</b>	Provides summations of data for all age groups per category of nutrition data to be reported
<b>Pregnant/lactating women</b>	Captures data on nutrition services provided for pregnant and lactating women in a quarter

**Description of Data Elements (indicators)**

<b>N1</b>	Number of clients who received nutrition assessment in this quarter using colour-coded MUAC tapes/z-score chart. These data are generated from all primary contact registers. <b>NOTE:</b> Include clinical assessment.
<b>N2</b>	Clients who received nutritional assessment using Height/Length-for-Age z-scores (Total, stunted). <b>This only applies to two age categories: &lt; 6 months, and 6–59 months.</b> For each quarter, the other column categories (5–18 years, pregnant/lactating women) should be shaded.
<b>N3</b>	Number of clients who received nutritional assessment and had malnutrition (Total, MAM, SAM without oedema, SAM with oedema). <b>NOTE:</b> SAM with oedema should be shaded for pregnant/lactating women.
<b>N4</b>	Number of newly identified malnourished cases in this quarter (Total, HIV positive)
<b>N5</b>	Number of clients who received nutritional supplementary /therapeutic feeds (Total, HIV positive) <b>NOTE: Data elements N2, N3, N4, and N5 include data generated from OPD Register, Child Register, and the INR.</b>
<b>N6</b>	Number of pregnant and lactating women who received MNC (Total, HIV positive)
<b>N7</b>	Number of pregnant and lactating women who received IYCF counselling (Total, HIV positive) <b>NOTE:</b> Data elements N6 and N7 include data generated from the Integrated Maternal Health Registers (ANC, Maternity, PNC). For each reporting period, all columns except 'pregnant and lactating women' should be shaded (not filled) for data elements 6 and 7
<b>N8</b>	Number of HIV-exposed infants who were reported to be exclusively breastfed for the first 6 completed months during the reporting period
<b>N9</b>	Number of HIV-exposed infants who were reported to be breastfed up to 1 year <b>NOTE:</b> Data elements 8 and 9 (on exposed infants) only target children 6–12 months. The shaded regions must not be used. <b>NOTE:</b> Data elements N8 and N9 are obtained from the HIV-Exposed Infant Register.
<b>N10</b>	Number of treated malnourished clients who attained target exit criteria at the end of the quarter (Total, HIV positive), only obtained from the INR

## Session 4.3: The Health Unit Quarterly Report (HMIS form 106a)

### Session Objectives

By the end of this session, participants should be able to:

		Time allocated
a.	Describe the nutrition data elements in the Health Unit Quarterly Report	15 minutes
b.	Demonstrate ability to complete the Health Unit Quarterly Report	15 minutes
	<b>Total</b>	<b>30 minutes</b>

### Materials

- Copies of the Health Unit Quarterly Report (HMIS form 106a)
- Copies of the Health Unit Nutrition Quarterly Summary
- Copies of unit/department quarterly reports from Outpatient, Exposed Infant Register, Pre-ART, ART, child services, maternal services (ANC, maternity, PNC).
- Slides—Session 4.3 The Health Unit Quarterly Report

### Facilitation Steps

- *Distribute copies of the Health Unit Quarterly Report (HMIS 106a).*
- *Ask participants to identify the nutrition quarterly cross-sectional report within HMIS 106a.*
- *Emphasize that the Health Unit Nutrition Quarterly Summary (HMIS Table 20) directly fits into the Health Unit Quarterly Report.*
- *Describe the additional nutrition data elements to HMIS Table 20.*

### Additional nutrition data elements to HMIS table 20

<b>Source register: Pre-ART</b>	N12. Number active on pre-ART care assessed for malnutrition at their visit in quarter N13. Number active on pre-ART who are malnourished at their last visit in the quarter
<b>Source register: ART</b>	N29. Number active on ART assessed for malnutrition at their visit in quarter N30. Number active on ART who are malnourished at their last visit in the quarter

## Session 4.4: Data Extraction and Reporting Practicum

### Session Objectives

By the end of this session, participants should be able to:

		Time allocated
a	Identify data quality aspects in the dummy health facility tools	90 minutes
b	Aggregate facility data using relevant tools	110 minutes
	<b>Total</b>	<b>200 minutes</b>

### Planning for the Practicum

The course coordinator should obtain dummy registers and reports (photos/photocopies) from the highest-level health facility in the area that offers nutrition services. The course coordinator should contact management of the target neighbouring health facilities **at least a week in advance** to seek permission and brief facility In-charges about the materials needed. The briefing should highlight the objectives of the exercise, contact points of interest, the target HMIS tools and required support from facility staff.

The target contact points of interest include OPD, maternal services (ANC, Maternity, PNC), child health service points (YCC), Nutrition Unit/corner, ART/TB services (ART, Pre-ART, TB clinic).

Ensure that copies of dummy registers for at least one quarter are obtained from each of the contact points.

### Materials

Copies

- *Health Unit Monthly Report (HMIS form 105)*
- *Nutrition Addendum (HMIS form 009)*
- *Health Unit Nutrition Quarterly Summary (HMIS Table 20)*
- *The Health Unit Quarterly Report (HMIS form 106a)*
- *Nutrition Tally Sheet*
- *Dummy registers: OPD Child, Maternal Services, HIV Care/ART–TB services, Integrated Nutrition*

Slides—Session 4.4 Data Extraction and Reporting Practicum

### Facilitation Steps

- *Divide participants into three groups. Allocate one set of dummy tools (for one month) to each group. Ask each group to review the respective dummy data tools provided.*
  - *Identify the Nutrition data elements in the respective tools.*
  - *Identify the data quality aspects (strengths and gaps) in the data tools*

- *Aggregate and fill in the Health Unite Monthly Report (HMIS 105) and Nutrition Addendum (HMIS 009) using appropriate tools (registers and Nutrition Tally Sheet).*
- *Ask each group to collect the filled monthly report forms from the other two groups and use them to complete a quarterly report.*
- *Each group will present their findings in plenary*
  - *Address any gaps that may arise and emphasize the reporting interface among the various service contact points.*
  - *Discuss challenges attributed to inequality data and suggest possible solutions.*

## Module 5: Nutrition Data Quality

This module has two sessions. It explains importance of monitoring and evaluating nutrition data, and ensuring nutrition data quality improvement.

**Overall objective:** To demonstrate the importance of monitoring and evaluating nutrition data, and use of data for decision making

### Session 5.1: Monitoring and Evaluation for Nutrition

#### Session Objectives

By the end of this session, participants should be able to:

		Time allocated
a.	Define data quality and its importance and attributes	30 minutes
b.	Explain monitoring, evaluation and reporting and their importance	30 minutes
c.	Identify indicators used for monitoring and reporting	30 minutes
	<b>Total</b>	<b>90 minutes</b>

#### Materials

Slides—Session 5.1 Monitoring and Evaluation for Nutrition

#### Facilitation Steps

##### Facilitation Step 1

- *Introduce the session and session objectives (Slides 1 and 2).*
- *Brainstorm: Ask participants what they understand by 'data quality' and record their responses on a flip chart (Slide 3).*
- *Discuss the data quality attributes and importance of each attribute (Slides 4–7).*

##### Facilitation Step 2

- *Brainstorm: Ask participants to define monitoring, evaluation and reporting? Write down their responses on a flip chart and fill in the gaps (Slides 8 and 9).*
- *Brainstorm:*
  - *What are the differences between monitoring and reporting?*
  - *What are the benefits/importance of monitoring, evaluation, and reporting (Slide 10)?*
- *Discuss the differences between monitoring and evaluation, and benefits of monitoring, evaluation, and reporting (Slide 11–13).*
- *Discuss the nutrition monitoring indicators by type of care and typical levels of treatment outcome (Slide 14-16).*

## Session 5.2: Quality Improvement Approaches in Nutrition

### Session Objectives

By the end of this session, participants should be able to:

		Time allocated
a.	Describe the principles of Quality Improvement	30 minutes
b.	Explain the commonly used Quality Improvement models	15 minutes
c.	Demonstrate the use of nutrition data for planning and decision making	45 minutes
	<b>Total</b>	<b>90 minutes</b>

### Materials

- Copies of the Plan-Do-Study-Act (PDSA) Cycle – in Reference Manual
- Copies of QI Documentation Journal – in Reference Manual
- Slides—Session 5.2 Quality Improvement Approaches in Nutrition

### Facilitation Steps

- *Distribute copies of the Documentation Journal to each participant.*
- *Describe the Quality Improvement principles.*
- *Discuss the steps in Quality Improvement.*
- *Ask each participant to identify a nutrition implementation gap in their respective work stations and address it based on PDSA Cycle and the Documentation Journal.*
- *Let one of the participants from same level facilities/organizations present his or her journal and allow others to discuss. Allow participants from the same level input during respective presentations.*
  - *Implementing partners*
  - *Regional Referral Hospitals*
  - *Hospitals*
  - *HCIVs*
  - *HCIIIs*

## Appendices

### Appendix I: Pre- and Post-test

#### TRAINING IN THE HEALTH MANAGEMENT INFORMATION SYSTEM FOR NUTRITION

#### PRE- AND POST-TEST

Secret code (to be provided) .....

Circle the correct answer to each of the questions below.

1. In Uganda, to assess for nutritional status for a child < 6 months, we use:
  - a) Weight-for-length
  - b) Length-for-age
  - c) Mid Upper Arm Circumference (MUAC)
  - d) BMI for age z-score
  - e) All the above
  - f) a, c, and d only
  - g) a and b only
2. The **most** appropriate index used to determine nutritional status of an adult (excluding pregnant and lactating women) is:
  - a) Mid-Upper Arm circumference (MUAC)
  - b) Weight-for-age
  - c) Height-for-age
  - d) Body Mass Index (BMI)
3. When summarizing total number of clients assessed for nutritional status using weight for height /BMI for age z-score the following are counted:
  - a) < -2SD
  - b) < -3 SD
  - c) > +2SD
  - d)  $\geq -2SD \leq +2SD$
  - e) All the above
4. When summarizing the number of clients who received nutritional assessment and had acute malnutrition, using MUAC/z-score chart, the following is considered:
  - a) MAM
  - b) SAM without oedema
  - c) SAM with oedema
  - d) Stunting
  - e) Overweight
  - f) All the above
  - g) a, b, and c only
5. Which of the following clients are registered in the Integrated Nutrition Register?
  - a) Clients who are assessed for nutritional status
  - b) All malnourished clients

- c) Clients with acute malnutrition
  - d) All the above
  - e) b and c only
6. The number of clients assessed for nutritional status can be obtained from which of the following tools?
- a) OPD Register
  - b) Child Health Register
  - c) ANC Register
  - d) Maternity Register
  - e) HIV Care/ART Card/EID Clinical Chart
  - f) All the above
7. Pre-primary data sources include all **except** one of the following:
- a) EID Clinical Chart
  - b) HIV Care/ART Card
  - c) Child Health Card
  - d) TB Card
  - e) OPD Register
8. The following are Maternal Health Services registers **except** one:
- a) The Integrated ANC Register
  - b) The Integrated Maternity Register
  - c) The Integrated Postnatal Register
  - d) The MCH Register
  - e) All the above
9. The HIV service area has the following data tools that capture nutrition data except one:
- a) HIV-Exposed Infant Clinical Chart
  - b) HIV-Exposed Infant Register
  - c) HIV Care/ART Card
  - d) Pre- ART Register
  - e) ART Register
  - f) None of the above
10. The following are routine nutrition data reporting forms except:
- a) Outpatient Monthly Report
  - b) The Health Unit Quarterly Report
  - c) Integrated Nutrition Register
  - d) None of the above
11. The following are key Quality Improvement principles:
- a) Client focus
  - b) Focus on systems and processes
  - c) Leadership
  - d) Testing changes and emphasizing the use of data
  - e) Teamwork

- f) All the above
  - g) a, b, d, and e only
  - h) a, b, c, and e only
12. The health facility logistics management tools include:
- a) Stock Card
  - b) Dispensing Log
  - c) Dispatch Form
  - d) Order Form
  - e) a, c, and d only
  - f) a, b, and d only
13. Which of the following is true about the Daily Dispensing Log?
- a) Used for issuing medicines from stores to pharmacy/dispensing unit
  - b) Used for recording medicines dispensed to each individual patient
  - c) Used for issuing medicines from stores to all user departments
  - d) Each patient receives a copy of the form
  - e) All the above
14. Which of the following is true about the Stock Card?
- a) Used to track the movements and balance of all commodities stored at the health facility store
  - b) Used to track commodities that have been stored for more than a week
  - c) Filled only when commodities are brought to the health facility
  - d) Only one card used per item
  - e) Card kept in the health facility store
  - f) a, d, and e only
  - g) All the above
  - h) None of the above
15. Data quality refers to the following:
- a) Completeness
  - b) Timeliness
  - c) Relevance
  - d) Accuracy
  - e) Precision
  - f) All the above
  - g) None of the above
16. Which of the following is true about the Nutrition Tally Sheet?
- a) Used to collect daily information on nutrition
  - b) Used in summarizing information on indicators
  - c) Only one copy is used where nutrition services are provided
  - d) More than one sheet can be used in a health facility
  - e) The tally sheets from the different units/corners are compiled into one.
  - f) b, d, and e
  - g) All the above
  - h) None of the above
17. The Health Unit Quarterly Report (HMIS form 106a) is generated every quarter and copies are sent to:

- a) The district
- b) The Health Sub-district
- c) The Ministry of Health
- d) Stays at the Health Unit
- e) All the above
- f) a, b, and d only

18. Monitoring (M) and Evaluation (E). Put either **M** or **E** against the following statements.

STATEMENTS	Write M or E
a) Is done continuously to keep track of daily activities	
b) Accepts project/program's objectives and targets through in-depth study	
c) Is done once or periodically; takes long-range view	
d) Questions pertinence and validity	
e) Checks progress toward output targets	
f) Stresses conversion of inputs to outputs project/program's objectives and targets	
g) Provides an in-depth assessment of performance for future feedback objectives	
h) Reports on current progress at short term	
i) Emphasizes achievement of overall goal	
j) Measures performance in terms of objectives intervals for immediate	

**Thank you**

## Appendix II: Pre- and Post-test Answers

### TRAINING IN THE HEALTH MANAGEMENT INFORMATION SYSTEM FOR NUTRITION

#### PRE- AND POST-TEST ANSWERS

Circle the correct answer to each of the questions below.

1. In Uganda, to assess for nutrition status for a child < 6 months, we use:

**Answer (g)**

2. The **most** appropriate index used to determine nutritional status of an adult (excluding pregnant and lactating women) is:

**Answer (d)**

3. The When summarizing total number of clients assessed for nutritional status using weight-for-height/BMI-for-age z-score the following are counted:

**Answer (e)**

4. When summarizing the number of clients who received nutritional assessment and had acute malnutrition, using MUAC/z-score chart, the following is considered:

**Answer (g)**

5. Which of the following clients are registered in the Integrated Nutrition Register?

**Answer (c)**

6. The number of clients assessed for nutritional status can be obtained from the following registers:

**Answer (f)**

7. Pre-primary data sources include all **except** one of the following:

**Answer (e)**

8. The following are Maternal Health Services registers **except** one:

**Answer (d)**

9. The HIV service area has the following data tools that capture nutrition data except one:

**Answer (f)**

10. The following are routine nutrition data reporting forms except:

**Answer (c)**

11. The following are key Quality Improvement principles:

**Answer (g)**

12. The health facility logistics management tools include:

**Answer (f)**

13. Which of the following is true about the Daily Dispensing Log?

**Answer (b)**

14. Which of the following is true about the Stock Card?

**Answer (f)**

15. Data quality refers to the following:

**Answer (f)**

16. Which of the following is true about the Nutrition Tally Sheet?

**Answer (f)**

17. The Health Unit Quarterly Report (HMIS form 106a) is generated every quarter and copies are sent to:

**Answer (f)**

18. Monitoring (M) and Evaluation (E). Put either **M** or **E** against the following statements

STATEMENTS	Write M or E
a) Is done continuously to keep track of daily activities	<b>M</b>
b) Accepts project/program's objectives and targets through in-depth study	<b>E</b>
c) Is done once or periodically; takes long-range view	<b>E</b>
d) Questions pertinence and validity	<b>E</b>
e) Checks progress toward output targets	<b>E</b>
f) Stresses conversion of inputs to outputs project/program's objectives and targets	<b>M</b>
g) Provides an in-depth assessment of performance for future feedback objectives	<b>E</b>
h) Reports on current progress at short term	<b>M</b>
i) Emphasizes achievement of overall goal	<b>E</b>
J) Measures performance in terms of objectives intervals for immediate corrective	<b>M</b>

**The end**

## Appendix III: List of HMIS Data Tools

	Name of Data Tool	HMIS Number
1.	ART Register	HMIS form 081
2.	Child Register	HMIS form 073
3.	Daily Dispensing Log	HMIS form 016
4.	Drug Resistant (DR) TB Register	HMIS form 096b
5.	Exposed Infants Clinical Monitoring Chart	
6.	Facility HIV Care (Pre-ART) Register	
7.	Health Unit Nutrition Tally Sheet	HMIS form 077a
8.	Health Unit Nutrition Quarterly Summary	HMIS table 20
9.	Health Unit Outpatient OPD Monthly Report	HMIS form 105
10.	Health Unit Quarterly Report	HMIS form 106a
11.	Health Unit TB Register	HMIS form 096a
12.	HIV Care/ART Card	
13.	HIV-Exposed Infant Register	HMIS form 082
14.	Integrated Antenatal Register	HMIS form 071
15.	Integrated Maternity Register	HMIS form 072
16.	Integrated Nutrition Register	HMIS form 077
17.	Integrated Postnatal Register	HMIS form 078
18.	Nutrition Addendum	HMIS form 009
19.	Order form for EMHS	HMIS form 085
20.	Outpatient Register	HMIS form 031
21.	Pre-ART Register	HMIS form 080
22.	Quarterly Household Summary	HMIS form 097a
23.	Requisition and Issue Voucher	HMIS form 017
24.	Stock Card	HMIS form 015
25.	VHT/ICCM Quarterly Report	HMIS form 097b
26.	VHT/ICCM Register	HMIS form 097

## Appendix IV: Generic Training Agenda

Time	Monday	Tuesday	Wednesday	Thursdays	Friday
8:30–9:30 am	Climate setting, Admin remarks	Basics of Nutrition cont'd.	Recap	Recap	District Health Information System 2
09:30–10:00 am	<i>Opening remarks</i>		Integrated Nutrition Register	Monthly Report and Nutrition Addendum	
		Community Data Tools	INR, cont'd. (INR case scenarios)		
10:00–10:30am	Pre-test	Primary Health Facility Data Tools		Monthly Report and Nutrition Addendum, <i>cont'd.</i>	
<b>10:30–11:00</b>					
11:00–12:00 pm	Health Management Information System	Group Work	Nutrition Tally Sheet	Table 20 and the Health Unit Nutrition Quarterly Summary	Introduction to M&E
12:00–1:45	Introduction to Nutrition Situation in Uganda	Group Work, cont'd.			Nutrition Data Quality
<b>1:45–2:45pm</b>					
2:45–3:15 pm	Basics of Nutrition	Group Presentations, Discussions	EMSH	Data Extraction and Reporting (practicum)	QI Approaches
3:15–4:00 pm					Action Planning Post-test, End-course Evaluation
4:00–4:30 pm	Daily Evaluation	Daily Evaluation	Daily Evaluation	Daily Evaluation	Closing Remarks
4:30–5:00pm	Evening Tea <b>(All)</b>	Evening Tea <b>(All)</b>	Evening Tea Daily Evaluation <b>(All)</b>	Evening Tea <b>(All)</b>	Evening Tea, Departure <b>(All)</b>
5:00–6:00pm	Facilitators' Meeting	Facilitators' Meeting	Facilitators' Meeting	Facilitators' Meeting	Facilitators' Meeting (1hr)

## Appendix V: Daily Training Evaluation Forms

### Health Management Information System for Nutrition Daily Training Evaluation Form

Venue \_\_\_\_\_

Dates \_\_\_\_\_

**Instructions:** Please rate each session's content, methodology, and facilitation by circling the appropriate option based on the following scale:

1 – Very poor

2 – Poor

3 – Satisfactory

4 – Very good

5 – Excellent

Session No./Title	Content	Methodology	Facilitation	Comments
Session	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
Session	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
Session	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
Session	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	
Session	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	

**Additional comments**

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*Thank you*

## Appendix V: End-Course Evaluation Form

### Health Management Information System for Nutrition

#### Course Evaluation Form

Venue \_\_\_\_\_ Start Date \_\_\_\_\_ End Date \_\_\_\_\_

**Instructions:** For each question, tick the box that best suits your reaction on the training.

	Disagree Completely (1)	Disagree (2)	Neither Agree or Disagree (3)	Somewhat Agree (4)	Fully Agree (5)
<b>Content</b>					
1. I feel the content and experiences provided were relevant to the topic.					
2. The training met my expectations.					
3. The training was responsive to my training needs.					
4. The training objectives were met.					
<b>Methodology</b>					
1. The training was presented in a professional manner.					
2. The facilitator encouraged participation and questions.					
3. I felt comfortable with the support material that was received as part of the training.					
<b>Schedule</b>					
1. Topics were adequately addressed.					
2. Allotted time was adequate for the training.					

**GENERAL**

1. What did you like best about the training and why?

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2. What did you find least useful in this training?

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3. What concrete feedback do you have regarding the training?

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4. What parts of the training would you improve?

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5. Do you feel that the content of this training material may be valuable to your organization/facility?

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If so how will you introduce the material?

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6. Overall comments

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*Thank you for participating.*



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