

2013

HMIS Information Use Training Manual



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MEASURE
Evaluation

HMIS Scale-up Project



SNNP Regional Health Bureau

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Message from the Head, SNNP Regional Health Bureau

The ultimate goal of the Health Management Information System (HMIS) is to generate quality data and use that data for management decisions to improve health service provision. The Regional Health Bureau of Southern Nations Nationalities and People's Region (SNNPR) puts utmost attention to scale up culture of HMIS information use at each level of the health system across the region. Among these, establishing the Performance Review Teams at every health administrative unit and at health facilities level is one of the initiatives taken by the RHB.

In SNNPR, HMIS data is readily available and accessible thanks to the electronic HMIS (eHMIS) developed and rolled out throughout the region with the technical assistance of the MEASURE Evaluation/JSI HMIS Scale-up Project. To further build the skills of the health managers and professionals in using the information generated by HMIS and linking it to program planning and performance monitoring, the RHB jointly with partners have developed the HMIS Information Use Training Manual. The Training Manual is based on the HMIS Information Use Guide (Technical Area 4, Version 2) published by the FMOH and follows the experiential training methodology recommended by FMOH for in-service trainings. This Training Manual is intended for workshop-based trainings and trainings organized through Health Science Colleges in the region.

I am confident that this HMIS Information Use Training Manual will make significant contribution towards making informed evidence based decision for improving the health services delivery in the region. Thus, I will call upon all health sector colleagues and partners in the region to follow the standard training procedures in promoting the culture of HMIS information use throughout the region.



Kare Chawicha Debessa
Head, Regional Health
Bureau

Session 1: Welcome and Introduction to the Training

1.1 Session Objectives

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

- Explain the objectives and agenda of the training
- Relate the training objectives with their work
- Establish network among themselves

1.2 Opening

Greet and welcome the participants in a cordial manner. Underscore that this training is not only about learning how to use HMIS information, but also about networking and interacting with each other to form a lasting friendship that can later be useful for supporting for each other in their work.

1.3 Introduction Exercise

Ask everyone in the room – participants, trainers and observers, to think about their expectations from the training and note them on a sheet of paper from their notebooks. Go around the room and ask each participant to introduce himself/herself providing the following information when they do so:

- Name
- Title, role and organization you work in
- Your work experience
- What do you want to achieve in this training? Indicate top 3 expectations

Once everyone is finished, summarize the most commonly mentioned expectations. Explain that in the subsequent part of the session we will talk about which expectations will be met.

1.4 Training objectives

Show the slide on training objectives and explain that:

At the end of the workshops the participants will be able to:

- Define concepts, roles and functions of HIS and explain data source of HIS
- Discuss determinants of HMIS performance using PRISM framework
- Apply M&E framework, M&E plan and explain relationship of M&E to HMIS
- Explain how HMIS is used for monitoring and improving health programs
- Define data quality and apply data quality assurance tools to improve data quality
- Practice data analysis, interpretation and presentation for evidence based decision making
- Apply Stakeholder analysis matrix to identify and engage HMIS stakeholders
- Describe HMIS forums for evidence based decision making
- Describe actions for sustaining the culture of HMIS information use

1.5 Review Expectation

Refer to the participants' expectation listed on the flipchart and compare it with the training objectives. Relate participants' expectations with the training objectives and explain how their expectations will be met during the course; try to be accommodative as far as possible. Explain to the participants why some of their expectation might not be met in this training.

1.6 Training agenda

Refer to the training agenda provided in the participant's folder and explain how the sessions have been organized for each day.

Session	Session Objective	Activities
	<i>By the end of the session, the participants will be able to:</i>	
Session 1: Welcome and Introduction to the Training	<ul style="list-style-type: none"> ▪ Explain the objectives and agenda of the training • Relate the training objectives with their work • Establish network among themselves 	Plenary discussion Pre-test
Session 2: Health Information System (HIS)	<ul style="list-style-type: none"> ▪ Define concepts, roles and functions of HIS in the context of the health system building blocks ▪ Explain different data sources for HIS 	Large group discussion Brainstorming
Session 3: Health Management Information System (HMIS) for performance management	<ul style="list-style-type: none"> ▪ Define concepts, roles and functions HMIS ▪ Explain determinants of HMIS performance using PRISM framework 	Small group work Plenary discussion Document review
Session 4: Monitoring & Evaluation (M&E) and HMIS	<ul style="list-style-type: none"> ▪ Define M&E and its purpose for decision making ▪ Explain M&E plan and its components ▪ Discuss M&E frameworks and Logic Model ▪ Explain the Relationship between M&E and HMIS indicators 	Review of concepts Case study Individual exercise
Session 5: Relationship of HMIS indicators with Health Programs	<ul style="list-style-type: none"> ▪ Discuss how HMIS is used for monitoring program performance and strategy implementation by emphasizing on the following three programs: <ul style="list-style-type: none"> – Maternal Survival Intervention – Child Mortality and Child Survival Intervention – STOP TB Program 	Group exercise – case study Review of concepts

Session	Session Objective	Activities
	<i>By the end of the session, the participants will be able to:</i>	
Session 6: HMIS Data Quality	<ul style="list-style-type: none"> Define data quality Describe data quality assurance tools Understand the application of data quality assurance tools. 	Exercise how to check data accuracy using Lot Quality Assessment Sampling (LQAS) and Routine Data Quality Assessment (RDQA)
Session 7: Decision Making in the context of Performance Improvement	<ul style="list-style-type: none"> Describe purpose of Ethiopian health system, its mission and vision Analyze, interpret and present health data in the context of using HMIS data for decision-making Apply various techniques of root cause analysis, generating interventions and prioritization 	Exercise on root cause analysis – Fishbone and decision tree; exercise on ranking matrix to prioritize root causes; exercise on evaluation criteria to prioritize interventions and exercise on how to develop implementation plan
Session 8: Forum for HMIS Information use	<ul style="list-style-type: none"> Explain how woreda based planning serves as a one planning forum Describe the purpose and functions of Performance Review Team Elaborate how and why to engage stakeholders in Performance Review Team 	Group exercise
Session 9: Sustaining a Culture of Information Use	<ul style="list-style-type: none"> Define culture of information use. Describe the factors affecting culture of information use Develop action for sustaining the culture of information use. 	Debate on sustaining culture of HMIS information use.

1.7 Training Methodology

Invite the participants to elaborate what they understand by adult learning. Appreciate their responses. Emphasize that the training will be conducted using adult learning principles. Show them the slide on “The Experiential Learning Cycle” and explain that the goal of the training methodology is to build participants’ confidence in their abilities to solve problems and make decisions using HMIS.

Adult Learning Principles:

1. Respect and learn from participants' experience
2. Praise/appreciate the participants
3. Listen to others and understand their perspectives
4. Make participants feel comfortable by valuing their contribution
5. Apply 20/40/80 rule – learn 20% by listening, learn 40 by listening and seeing and learn 80% by listening, seeing and doing.
6. Involve a combination of thinking, feeling and acting
7. Relevance to daily work
8. Immediate results
9. Having fun – entertain and educate

1.8 Setting Ground Rules

This can be accomplished in small or large groups using the flipchart or sticky wall. Seek consensus around the rules that everyone should follow during the training workshop. You can lead the discussion by asking “What do we need to agree to do to be successful in this training workshop; what are our team rules that will guide our behavior?”

The ground rules should be put on the wall. Encourage the participants to cooperate with the facilitators and to help each other to maintain the ground rules throughout the training.

1.9 Pre and Post test

1. Health Management Information System:
 - a. Collects data from service records and administrative records
 - b. Provides signals that can be reviewed frequently to monitor program implementation
 - c. Used for decision making
 - d. a. and c. of the above
 - e. All of the above
2. Why do we need information?
 - a. Make policy and management decisions
 - b. Monitoring and Evaluation
 - c. Project management
 - d. a. and b. of the above
 - e. All of the above

3. Decision making is a process that requires
 - a. Quality data
 - b. Involvement of a variety of relevant stakeholders
 - c. Availability of resources
 - d. a. and b. of the above
 - e. All of the above
4. One of the following is source for routine information
 - a. Census
 - b. HMIS
 - c. Vital registration system
 - d. Demographic Survey
5. Factors that affect HMIS data quality and information use
 - a. Organizational
 - b. Behavioral
 - c. Technical
 - d. All of the above
6. Data Quality refers to
 - a. Relevance, completeness, timeliness, accuracy of the data
 - b. Timeliness and accuracy of the monthly reports
 - c. Timeliness, completeness and accuracy of the data
 - d. None of the above
7. Information management includes
 - a. _____
 - b. _____
 - c. _____
 - d. _____
 - e. _____
8. Monitoring is sometimes referred to as
 - a. Project Evaluation
 - b. Impact Evaluation
 - c. Process Evaluation
 - d. Performance Evaluation
 - e. None of the above

9. Evaluation measures
- The timeliness of a program activities
 - The outcomes and impact of program's activities
 - How closely a program kept to its budget
 - How well the program was implemented
10. Which of the following is NOT considered "Monitoring?"
- Counting the number of people trained
 - Tracking the number of brochure disseminated
 - Attributing change in health outcomes to an intervention
 - Collecting monthly data on clients served in a clinic
11. **Data** refers to factual figures/information recorded on the registers; and **Information** refers to the data that have been aggregated and reported.
- True False
12. HMIS is an integral part of HIS
- True False
13. You can present data using
- Charts and graphs
 - Charts, graphs and tables
 - Charts, tables, and/or statements
 - Percentages, aggregated numbers, diagrams
14. A variable that permits to measure a change of a given condition over time is called
- Baseline
 - Target
 - Indicator
 - Data
 - All of the above
15. Which statement is true about the PRISM tools
- RHIS Diagnostic Tool is used to assess problems in RHIS/HMIS data management
 - PRISM Tools are used to analyze HMIS information for decision making
 - Organizational & Behavioral questionnaire helps to determine the level of competence in performing HMIS tasks
 - None of the above

16. **Evidence-based decision making** - is a process by which public health decisions are informed by using data transparently, and that includes stakeholder consultation
- True False
17. Which one of the following is an example of culture of information use?
- a. Regular meeting of the Health Unit's Management Team
 - b. Timely submission of accurate and complete HMIS monthly reports
 - c. HMIS Focal Person regularly cross-checking data accuracy using LQAS methodology
 - d. Documentation of data review and use by decision makers
18. Good information flow means:
- a. HMIS reports are submitted at timely and regular intervals to the regional health bureau
 - b. Information is shared within a health unit and between the upper and lower health units
 - c. Regular feedback is provided by the upper administrative health units to their respective lower levels
 - d. All health units are connected to a computerized health information system
19. One of the following need data to make evidence based decisions
- a. Computer data entry person
 - b. Health Extension Workers
 - c. Director of Medical Services Directorate
 - d. Program managers
 - e. All of the above
20. Which factors help to sustain a culture of information use?
- a. Leadership
 - b. Policy statement on information use
 - c. Skills to analyze and interpret data
 - d. Availability of HMIS resources
 - e. a. and c. of the above

Session 2: Health Information System (HIS)

2.1 Session Objectives

By the end of the session participants will be able to:

- Define concepts, roles and functions of HIS in the context of the health systems building blocks
- Explain different data sources for HIS

2.2 Health Information System in the context of the six building blocks of health system

Greet the participants and explain the objectives of the session.

Initiate discussion by asking the participants:

- What is the primary purpose or intent of a health system?
- How that is achieved?
- What is required to do that?

Note the responses on flip charts. Invite the participants to summarize their statements by defining “What is a Health System”.

Appreciate their responses and show the slide on WHO’s definition of Health System

A health system consists of all organizations, people and actions whose primary intent is to promote, restore or maintain health. This includes efforts to influence determinants of health as well as more direct health-improving activities.

Explain to the participants that this session focuses mainly on health information system. Start the discussion by asking participants what we mean by health information system? Appreciate the response and compare the response with the following¹:

A well-functioning health information system is one that ensures the production, analysis, dissemination and use of reliable and timely information on health determinants, health systems performance and health status

¹ EVERY BODY’S BUSINESS STRENGTHENING HEALTH SYSTEMS TO IMPROVE HEALTH OUTCOMES: WHO’S FRAMEWORK FOR ACTION. 2007

Conceptual framework – health systems building blocks

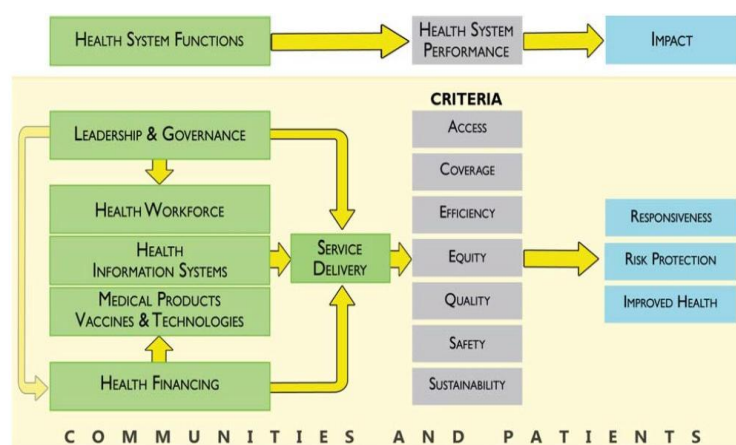


Fig 1: Conceptual framework – health systems building blocks²

Elaborate that the relationship between and among the building blocks is multiple and dynamic. Each building block influences the others; improvements in one area cannot be achieved without contributions from others.

Facilitate brainstorming on how the health information system influences the other building blocks and contributes towards better performance of the health system and achievement of its goals.

Ask the participants:

- What is the essential function of the Health Information System within this framework of the Health System Building Blocks?
- In other words, what are the essential attributes of the products of Health Information System for it to contribute to the well-functioning of the Health System?

Appreciate their responses, show the previous slide and reiterate that:

A well-functioning health information system is one that ensures the production, analysis, dissemination and use of reliable and timely information on health determinants, health systems performance and health status.

² Health Systems 20/20; *The Health System Assessment Approach: A How-To Manual. Version 2.0*, 2012
www.healthsystemassessment.org

Exercise

Share the following statement:

“Reliable and timely health information can make a difference”.

Allow the participants to reflect on the above statement by providing their own examples from their experience to show the importance of reliable and timely information.

Conclude by emphasizing the importance of HIS for timely decision making based on evidence.

2.3 Components of Health Information System (HIS)³

Ask participants if they are familiar with the components of HIS. Appreciate their answers and compare the responses with the following:

Six components of Health Information System (HIS)

- 1 HIS Resources
 - 1.1 Health information system coordination and leadership
 - 1.2 Health information system information policies
 - 1.3 Health information system financial and human resources
 - 1.4 Health information system infrastructure
- 2 Indicators
- 3 Data Source
 - 3.1 Censuses
 - 3.2 Civil registration
 - 3.3 Population surveys
 - 3.4 Individual records
 - 3.5 Service records
 - 3.6 Resource records
- 4 Data management
 - 4.1 Data storage
 - 4.2 Ensuring data quality
 - 4.3 Data processing and compilation
- 5 Information Products
- 6 Dissemination and use

³ Health metrics network (HMN): Framework and Standards for Country Health Information Systems; Second edition, WHO; June 2008

Clarify, if necessary, the terms used for denoting the HIS components. Explain that census, civil registration and population surveys provide population-based data while individual records, service records and resource records provide health institution-based data.

Elaborate that routine information collected from health institution-based data sources is called Routine Health Information System (RHIS) commonly referred to as Health Management Information System (HMIS).

Session 3: Health Management Information System (HMIS) for performance management

3.1 Session Objectives

By the end of this session participants will be able to:

- Define concepts, roles and functions of HMIS
- Explain determinants of HMIS performance using PRISM framework

3.2 Health Management Information System and its Purpose

Start the session by asking participants what are some of the interventions in Ethiopia taken by the government to improve HMIS? Appreciate the response and compare it with the following:

- The government has adopted “One plan, one budget and one report” policy making HMIS as the core information system providing the essential information for health system monitoring.
- The health sector development plans (HSDP) recognizes HMIS and M&E as the backbone of health care delivery in Ethiopia.
- The redesigned HMIS emphasizes on improved HMIS information use, improve data quality, decrease data burden, improved ICT support.

Ask the participants what kind of information is required at different levels such as at service provider, administrative (FMOH, RHBs, ZHOs, WorHO etc.) levels and why.

Appreciate the responses from participants and record them on the flip chart.

Some of the possible responses can be:

- Facility level – need information on the amount and quality of services, resources patients’ satisfaction on the service etc. to help us in planning and managing health services, program’s performance and resources.
- Administrative level – need information on service coverage, burden of disease, disease occurrences, staff performance, resource available etc...for planning, policy formulation, performance management etc.

In the context of the above, ask the participants what is the purpose of HMIS which provides routine health institution based information. Appreciate their response and compare it with the following:

The Purpose of HMIS:

To routinely generate quality health information that provides specific information support for the decision making to monitor and improve performance of the health sector.

Hence, HMIS is more than a system for data collection and generating quality information, and encompasses the continued use of the information for decision making as well.

Ask the participants how HMIS helps to monitor and improve the performance of the health sector. Appreciate their responses and help participants to understand that indicators that are the most important for monitoring sector wide and program performance are included in the reformed HMIS. These indicators measures how well the health sector is performing based on five thematic/ programmatic areas. Share the list of HMIS indicators and explain the five broad program areas covered by HMIS, i.e. Family Health, Disease Prevention and Control, Hygiene and Environment Sanitation, Resources and Health systems.

At this point, ask the participants to explain what an indicator mean? Appreciate the response and explain that:

Indicator

- Is a variable – whose value changes
- Is a measurement that measures the value of the change in meaningful units that can be compared to past and future units
- Focuses on a single aspect of a program or project – i.e., an input, output or the overarching objective.

3.3 Key Performance Indicators

Ask participants what key performance indicators mean and where do we get these indicators and why are they called key indicators? Appreciate the response and explain to the participants as follows by displaying the 21 key HMIS indicators.

Key Performance Indicators

There are 21 HMIS indicators that FMOH selected for routine monitoring of key aspects of the health system performance.

These are from among the five broad categories – Reproductive health, Immunization, Disease prevention and control, Resources utilization and Data Quality.

Every Administrative/ health facility unit displays these indicators as relevant, and routinely reviews during performance review meetings

Key Performance Area	Key Indicator
Reproductive Health	1. Family planning Acceptance Rate
	2. Antenatal Care coverage
	3. Proportion of deliveries attended by skilled health personnel
	4. Proportion of deliveries attended by HEWs
Immunization	5. DPT-3 (Pentavalent-3) coverage (>1 children)
	6. Measles Immunization coverage(>1 children)
Disease prevention and control	7. Malaria case fatality rate amongst patients under 5 years of age
	8. New malaria cases per 1000 population
	9. New pneumonia cases amongst under 5 children per 1000 population of < 5 yrs
	10. TB case detection rate
	11. TB cure rate
	12. Clients receiving VCT services
	13. PMTCT treatment completion rate
	14. PLWHA currently on ART
Resource Utilization	15. Trace drug availability (in stock)
	16. OPD attendance per capita
	17. In patient admission rate
	18. Average length of stay (in – patient)

Key Performance Area	Key Indicator
	19. Bed Occupancy Rate
Data Quality	20. Reporting completeness rate
	21. Reporting timeliness rate

Ask the participants what are the Hospital Key performance Indicators (KPI). Appreciate the response and show the KPI table below and explain that the hospital boards use KPI to understand how the hospital is performing. However, hospital case teams may look into additional indicators that they need to focus on to understand how the different programs are performing.

HOSPITAL KPI

Outpatient Service

- KPI2: Outpatient attendances
- KPI3: Outpatient attendances seen by private wing service

Emergency Services

- KPI6: Emergency room attendances

Inpatient Services

- KPI10: Inpatient admissions
- KPI12: Inpatient mortality
- KPI14: Bed Occupancy
- KPI15: Average Length of Stay
- KPI18: Completeness of inpatient medical records

Maternity Services

- KPI19: Deliveries (live births and still births) attended
- KPI20: Births by surgical procedure (C-section)
- KPI21: Institutional maternal mortality
- KPI22: Institutional neonatal deaths within 24 hours of birth

Referral Services

- KPI23: Referrals made
- KPI24: Rate of referrals

Pharmacy Services

- KPI26: Average stock out duration of hospital specific tracer drugs

Small Group Activity

Divide the participants into 5 small groups

- Provide the list of HMIS indicators to each group and ask the groups to review each indicator in details.
- Ask the participants to take one indicator from the 21 key performance indicators or the Hospital KPIs and discuss about it in the group
- Give an opportunity for each group to explain the indicator they selected: what that indicator means and how it can help to measure health service's or program performance?

Appreciate the participants and inform that we will now shift our attention to understanding the factors that determine the performance of HMIS.

3.4 Determinants of HMIS

Re-capitulate that the overall purpose of HMIS is to generate quality data and using that data in a continued manner for evidence-based decision making.

Ask the participants to reflect on how often they use HMIS information to make decisions at their own levels. Encourage participants to discuss some of the reasons that affect HMIS data quality and the use of HMIS data for evidence based decision making.

Assist the participants to group their responses according to those that have similar characteristics and to explain the basis for such grouping. Assist them to categorize those characteristics into technical, behavioral and organizational groups. Show the participants the slide on the PRISM⁴ framework.

Explain that PRISM stands for:

Performance of Routine Information System Management

Elaborate that PRISM framework helps to understand the inputs and outputs of RHIS/HMIS and the determinants of RHIS/HMIS performance. Relate the framework with the earlier responses provided by the participants and explain how HMIS performance is influenced by organizational, behavioral and technical determinants.

⁴ USAID MEASURE Evaluation: PRISM Tools User Guide (<https://www.cpc.unc.edu/measure/publications/MS-12-51>)

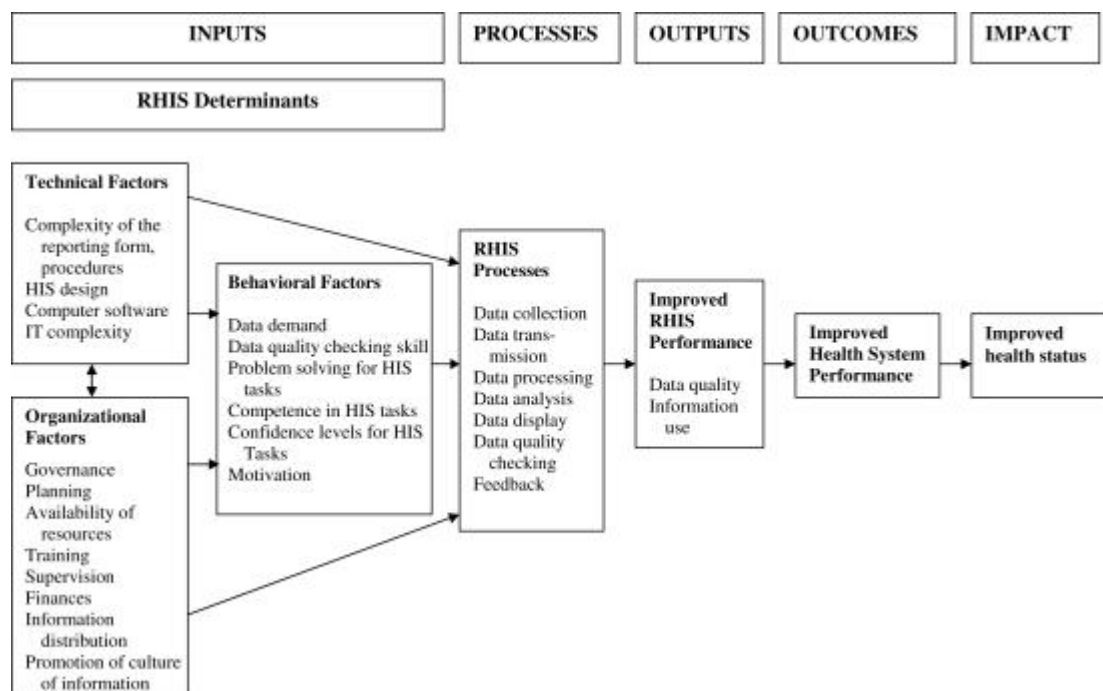


Fig. 2: The PRISM Framework⁴

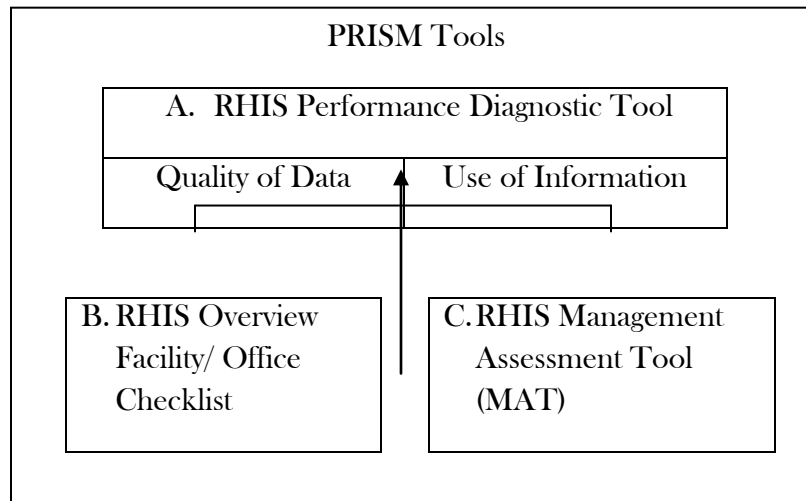
Explain that:

- **Technical determinants:** are the technical aspects of the routine health information system and relate to data collection tools, data management procedures, IT support for data processing etc. Complexity of the HMIS design, unresponsive of the HMIS to meet the information needs of the program managers, complexity of the HMIS software etc can influence the production of quality data and use of HMIS information.
- **Behavioral determinants:** relate to the demand for HMIS data, and confidence, motivation and competence to perform RHIS/HMIS tasks. If the staff or the managers are not aware of or do not appreciate the usefulness of HMIS data then it will negatively affect the data quality and its use. Similarly, lack of skills to ensure data quality and use HMIS information will have adverse affect on HMIS.
- **Organizational determinants:** related to how an organization values the information system and promotes the culture of information use. Allocating resources for HMIS, building capacity to do HMIS/RHIS tasks, nurturing a culture of data demand and use for decision making at every level of health system management influence the HMIS performance directly or indirectly through behavioral determinants.

Show the slide on PRISM Tools and explain that there are tools that help to:

- Diagnose the HMIS performance in terms of quality of HMIS data and the Use of Information (The Diagnostic Tool))

- Understand the various factors (Organizational, Behavioral and HMIS resources) that affect the HMIS Performance



Share with participants the following table to explain the purpose of each tool.

Assessment domains using PRISM TOOLS			
RHIS overview / Diagnostic Tool	Facility /office Checklist	RHIS Management Assessment Tool (MAT)	Organizational & Behavioral Assessment tool (OBAT) examine
Existing information (sub systems)	Available resources, organizational context of RHIS at health facilities and management offices	Status of RHIS management functions	Behavioral factors such as knowledge, skills, problem-solving, confidence level, motivation
Information flow	Role and responsibilities of staff in RHIS processes	Level of development of RHIS	Organizational factors such as promoting culture of information
Level of Data quality & Information use practices		Areas for improvement	

Encourage the participants to review the PRISM Tools Use Guide published by MEASURE Evaluation. Inform them that they can access the guide through the link:

<https://www.cpc.unc.edu/measure/publications/MS-12-51>

Invite questions for further clarification on the topic. End the session by thanking the participants and emphasizing the importance of self-motivation as well as organizational support for making HMIS an effective building block in contributing to the overall health system strengthening.

Session 4: HMIS Data Quality

4.1 Session Objectives

By the end of this session, participants will

- Define data quality
- Describe data quality assurance tools
- Understand the application of data quality assurance tools

4.2 What Do We Mean By Data Quality

Ask participants what kind of information they received that made their participation in the workshop possible.

- Was that information of good quality?
- Why do they think so?

Facilitate the discussion and encourage the participants to discuss how that information relates to the different attributes of the quality information i.e. how that information was relevant, timely, accurate and complete.

Appreciate and record their response. Emphasize that for HMIS data to be useful, the data has to be:

- Relevant
- Accurate
- Timely, and
- Complete

Ask the participants what they understand by each of these different terms used to describe the quality of HMIS data. Encourage them to explain by giving examples.

Elements of Data Quality

- **Relevance** – Data collected and reported by HMIS is relevant to the information needs of the health system for routine monitoring of program performance.
- **Timeliness** – data is collected, transmitted and processed according to the prescribed time and available for making timely decisions.
- **Accuracy** – data that is compiled in databases and reporting forms is accurate and reflect no inconsistency between what is in the registers and what is in the databases/reporting forms at facility level. Similarly, in case of data entered in the computers, there is no inconsistency between the data in the reporting forms and the computer files.
- **Completeness:**
 - At service delivery point, it refers to all the relevant data elements in a patient/client register are filled
 - At Health Administrative unit – data completeness has two meanings:
 1. All the data elements in a database or report are filled
 2. The health administrative unit has reports from all the health facilities and/ or lower level health administrative units within its administrative boundary

Inform the participants that relevance of HMIS data is ensured at the time of the design of the system. It may change over time as the program priorities and interventions change, and thereby the information needs change.

Ask participants how to check report timeliness and report completeness. Appreciate the response and compare it with the following:

- Report timeliness is measured as percentage of HMIS reports that are received on time out of the expected number of reports for an administrative unit
- For Health Facility HMIS Reports - Report completeness is measured as the percentage of data items in Health Facility HMIS reports reported out of the expected number HMIS data items to be reported by the Health Facility.

Encourage the participants to think other definitions of report completeness, e.g. percent of HF reports received; percent of HF reports represented in the aggregate reports at woreda, zonal and regional levels.

Ask participants what some of common sources of data errors are, encourage participants to explain by providing examples? Appreciate the response and explain as follows:

Common sources of data error in HMIS reports	
Error	Example
Missing data	Data items for whole months missing (ex - HIV positive women delivered in facility)
Duplicate data	Multiple counting of a fully immunized child
Thumb suck	When data collection tools are not used routinely, staff just fills in a likely-looking number (often using preferential end digits! /0 & 5/)
Unlikely values for a variable	A man being pregnant; low birth weight babies exceeding number of deliveries
Contradictions between variables	100 births in a month when there are only 2,000 women in childbearing age
Calculation errors	Mistakes in adding
Typing error	Data is wrongly entered into the computer
Capture in wrong box	TB Cured in the place of Treatment Completed

Ask participants what happens when data is not relevant, timely, accurate, or complete? Appreciate the response – explain as follows:

If,

Data is not relevant – it won't have any added value in monitoring the program performance. It only adds burden on data collectors.

Data is not timely – it will not help us to make timely decisions to fix problems.

Data is not accurate – It can prevent us from seeing the actual performance of the program.

Data is not complete – we will not be able to see the complete picture of the performance at different levels.

Overall: the decision making based on evidence will be hampered.

Ask participants how they can track report timeliness. Appreciate the responses and explain it as follows:

Tracking Report Timeliness

HMIS focal person at each administrative should maintain a registry of receipt and transmission of monthly report from and to the respective level/health unit. After the due date for receiving the report is over, the focal person will check the registry (or the electronic Report Tracker in eHMIS) to identify the health facilities that have not submitted the report and communicate with them to ensure timely submission of the report.

Ask participants what is the easiest way of checking the HMIS Health Facility Reports for data completeness and accuracy without using any tools? Appreciate the response and explain as follows

Visual scanning (eyeballing):

- Look across each line and then from top to bottom; it is important to look for missing data values, unexpected fluctuations beyond maximum/minimum values, inconsistencies between linked data elements, and for mathematical errors.

Inform the participants that there are two techniques to check HMIS data accuracy. These are:

- Data accuracy check using Lot Quality Assurance Sampling (LQAS) methodology at Health facility level
- Routine Data Quality Assessment (RDQA) – used at woreda, zone and/or regional levels to understand the level of data accuracy within that woreda, zone or region.

4.3 Data Quality Assurance Tools: LQAS methodology

Ask participants how many of them have used the LQAS method for checking data accuracy at health facilities. Invite one of the participants who have experience of using LQAS methodology to explain the procedure. Appreciate the participant, clarify misconceptions if any. Reiterate that:

Lot Quality Assurance Sampling (LQAS) - is a technique useful for assessing whether the desired level of data accuracy has been achieved by comparing data in relevant record forms (i.e. registers or tallies) and the HMIS reports.

Explain that LQAS is a sampling methodology used in many different setting. Elaborate the basic principles of LQAS methodology:

Basic Principles of LQAS

1. A method for testing hypothesis, e.g. desired level of HMIS data quality is achieved (or not)
2. Small random sample for a lot/supervisory area is used
 - The optimal sample size is 19
 - A sample size of 12 also serves well, particularly if it is consistently used over time for studying the same supervisory area
 - Testing only two possibilities i.e. Yes or No; Present or Absent
3. If the number of sampled items not meeting the standard exceeds a pre-determined criterion (decision rule), then the lot is rejected or considered not achieving the desired level of pre-set standard
4. “Decision rule” table is used for determining whether the pre-set criterion is met or not
5. Aggregating LQAS data from multiple supervisory areas can give us mathematical percentage of the level of achievement.
6. Comparing LQAS results over time can also indicate if there is any change or not

Exercise:

Provide the Handout “LQAS Data Accuracy Check Sheet” to the participants. Allow a few minutes for them to review the sheet.

Inform that this handout has been partially filled-out through following a number of steps. Ask the participants what are the steps for completing the LQAS Data Accuracy Check Sheet. Appreciate their answers and clarify misconceptions, if any.

Reiterate that the steps for completing the check sheet are:

- Step 1. Select the month for which you are doing the data accuracy check.
- Step 2. Pre-fix the level of data accuracy that you are expecting, e.g. 70% or 85% etc.
- Step 3. Put serial numbers against the data elements in the Service Delivery or Disease Report that you want to include in the data accuracy check

- Step 4. Generate twelve random numbers using Excel program. These random numbers represent the serial numbers of the data elements included in the data accuracy check. Note them in Column of the Data Accuracy Check Sheet. This is to ensure representation of all data elements by giving equal chance to all data elements.
- Step 5. List down the selected data elements from the report on to the Data Accuracy Check Sheet in Column 2 and Column 3
- Step 6. Write down the reported figures from the Monthly HMIS Report for the selected data elements in the Column 4 of the Data Accuracy Check Sheet.
- Note: In case of Health Post, figures for the selected data elements from the Tally Sheet will be compared with recounted figures from the Family Folders. Therefore, record the figures for the selected data elements from the Tally Sheet in Column 5.
- Step 7. Recount the figure from the corresponding registers and note the figures on Column 6 of the LQAS check-sheet
- Step 8. If the figures for a particular data element match or do not match put “yes” or “no” accordingly in Column 7 or Column 8 respectively.
- Step 9. Count the total number of “yes” and “no” at the end of the table
- Step 10. Match the total number of “yes” with the LQAS Decision Rule table and determine the level of data accuracy achieving the expected target or not.

Ask the participants to complete the remaining steps on the Handout. Allow time to complete the task.

Ask,

- In their view, what should be the desired HMIS data accuracy level?
- In order for the HMIS report to meet the desired accuracy level, how many data elements would completely match? (Ask them to find the desired number of matches in the “Decision Rule” table)
- How many data elements on the handout show that they match?
- What is the data accuracy level achieved?
- Does that level meet the desired data accuracy level?

Invite questions from the participants and clarify accordingly.

Decision Rules for sample Sizes of 12 and Coverage Targets /Average of 20-95%																
Sample size	Average Coverage (baselines)/Annual Coverage Targets (Monitoring and Evaluation)															
	<20%	20%	25%	30%	35%	40%	45%	55%	60%	65%	70%	75%	80%	85%	90%	95%
12	N/A	1	1	2	2	3	4	5	6	7	7	8	8	9	10	11

Handout: LQAS Data Accuracy Check sheet

Random No.	Reference No. In the Report	Reporting Element	Source & figures			Do figure in Col. 4 or Col. 5 matches with figure in Col 6?	
			Report	Tally	Register	Yes	No
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	A.1.2,1.2.2	Repeat Acceptors	14		14		
2	A.1.5, 1.5.2	Deliveries attended by HEW	68		40		
10	A.3,3.4	Fully Immunized infants<1 yrs of age	12		15		
18	A2 2.1.1	2-5 yrs age group who de-wormed	26		26		
8	A.3, 3.6.4	Measles doses given (all ages)/doses opened	8		8		
20	D.1, 1.2.6	HP visits<5: new female	32		22		
5	A2, 2.1.1	Number of newborns weighed	14		14		
35	A2.2, 2.2.2	Number of weights recorded with severe malnutrition	78		80		
40	A.1.5, 1.5.3	Child death	10		10		
65	A1.10, 1.10	First post natal attendances	4		4		
5	A2, 2.1.2	Vit A supplementation for 6-59 months of age	2		2		
12	A.1.5, 1.9	Early neonatal death	11		14		
Total (Yes or No)							

Inform that Health Facilities will maintain a registry to record the data accuracy check results. The HMIS Focal Persons will also use it for recording the data accuracy check during their supportive supervision visits.

Ask the participants what actions would be necessary if they find that the data accuracy at a health facility is not of the desired level.

Facilitate the discussion and encourage them to involve the health facility staff:

- To correct the errors, if possible
- For understanding the root causes, deciding on solutions and following up the implementation of the solutions.

4.4 Data Quality Assurance Tools: RDQA methodology

Initiate the discussion by reminding the participants that LQAS method for checking data accuracy is use at health facility level. Inform them that there is another tool for checking data accuracy called Routine Data Quality Assessment (RDQA) tool.

Explain to the participants that:

Routine Data Quality Assessment (RDQA) tool helps to:

- Perform data accuracy at administrative level by enabling quantitative comparison of recounted data to reported data
- Assess if intermediate aggregation sites are collecting and reporting data accurately by providing a “Verification Factor” i.e. level of under or over reporting, if any, for the HMIS data items studied.

Exercise

Provide the Handout on RDQA to the participants. Allow a few minutes for them to review the handout.

Inform that this handout has been partially filled-out. Ask the participants what are the steps for completing the RDQA Sheet. Appreciate their answers and clarify misconceptions, if any.

Explain that RDQA is applied at administrative unit level. This can be a region, a zone or a woreda or a cluster of them. Thus, to understand the HMIS data accuracy level in the given administrative area, a sample of 12 health facilities is selected. Each of these selected health facilities is visited to complete the RDQA tool.

Elaborate the steps for completing the RDQA, which are:

1. Select key data elements from the HMIS reports that will be studied (include data elements of 7 to 9 top priority indicators at national level)
2. List the data items in the RDQA table
3. For each of the selected data elements recount the number of cases or events recorded during the reporting period by reviewing the relevant source documents available at the selected sites [A]
4. Copy the number of cases or events for the selected data elements reported by the site during the reporting period from the HMIS reports submitted by the selected sites [B]
5. Add up all the recounted figures for the corresponding data elements from the 12 sites [ΣA]
6. Add up all the figures for the same data elements copied from the HMIS reports of all the 12 sites [ΣB]
7. Calculate the ratio of recounted to reported numbers. [$\Sigma A / \Sigma B$]

This figure gives the Verification: Accuracy Ratio for the respective data element studied. Lower than 1 (or <100%) accuracy ratio indicates over-reporting and higher than 1 (or >100%) accuracy ratio indicates under-reporting. The accuracy ratio (or the Verification Factor) is factored into the reported figure to give the actual figures as recorded in the source document.

Inform the participants that Steps 1-5 are complete on the handout and they have to complete Steps 6-8.

Allow time for the participants to calculate the VF for each data item.

Ask what the VF is for “New Acceptors”. Appreciate that it is 1.01 ($\Sigma A = 179$; $\Sigma B = 177$; therefore $\Sigma A / \Sigma B = 1.01$)

Ask what does this mean. Appreciate that this means that the Figures for “New Acceptors” is under reported in the administrative unit where the assessment was done.

Tell the participants that if this handout represents the situation of a zone then as Regional Health Bureau Planning Process Owner, how they would use this information.

Appreciate that they can:

- Correct the reported figure for New Acceptors from that zone by multiplying the reported figure with the Verification Factor i.e. 1.01 in this case.

- Set an acceptable range of VF variation e.g. 0.8 to 1.2. If the reported figures are within that range then accept the reported figures as they are; however, if the reported figures are beyond the acceptable range then correct the figures using the Variation Factor

Ask participants which of the indicators from RDQA Exercise are under-reported and which ones are over-reported.

Appreciate the response and explain that for:

- Institutional maternal deaths: $\Sigma A = 204$; $\Sigma B = 193$; therefore $\Sigma A / \Sigma B = 1.06$. This represents that data is under-reported
- Early Neonatal death: $\Sigma A = 317$; $\Sigma B = 308$; therefore $\Sigma A / \Sigma B = 1.03$. This is also under-reporting
- 1st ANC: $\Sigma A = 226$; $\Sigma B = 232$; therefore $\Sigma A / \Sigma B = 0.97$ which indicates over-reporting. Thus, the reported figures for ANC-1 can be corrected to match the recounted figures by multiplying the reported figure by the Verification Factor viz. 0.97 in this case.

Handout for RDQA Exercise:

HMIS Data Element		Health Facility												Total	V.F
		1	2	3	4	5	6	7	8	9	10	11	12		
New Acceptor	Recounted figure (A)	10	9	11	20	7	30	41	22	3	19	5	2	$\Sigma A =$	$\Sigma A / \Sigma B =$
	Reported figure (B)	10	5	14	20	5	31	41	20	5	19	5	2	$\Sigma B =$	
Institutional maternal death	Recounted figure (A)	12	22	15	9	17	27	45	22	2	7	21	5	$\Sigma A =$	$\Sigma A / \Sigma B =$
	Reported figure (B)	11	22	14	7	8	30	42	22	7	7	18	5	$\Sigma B =$	
Early Neonatal death	Recounted figure (A)	2	24	11	33	32	10	55	44	32	11	55	8	$\Sigma A =$	$\Sigma A / \Sigma B =$
	Reported figure (B)	4	24	7	33	32	10	55	40	32	15	50	6	$\Sigma B =$	
1 st ANC	Recounted figure (A)	14	8	6	34	12	21	56	2	33	10	22	8	$\Sigma A =$	$\Sigma A / \Sigma B =$
	Reported figure (B)	14	6	6	32	14	21	58	2	33	14	22	10	$\Sigma B =$	

Thank and appreciate the participants and explain to the participants that we have finished talking about data quality we will be moving to performance improvement framework in the next session.

Session 5: Monitoring & Evaluation (M&E) and HMIS

5.1 Session Objectives

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

- Define M&E and its purpose
- Explain M&E plan and its components
- Discuss M&E frameworks and Logic Model
- Explain the Relationship between M&E and HMIS indicators

5.2 What is M&E and its purpose⁵

Start the session by asking participants what M&E means and its purpose. In other words, what kind of question does M&E helps to answer? Appreciate the response and explain as following:

Monitoring & Evaluation: is the process of data collection and analysis for informing policy, program planning and project management.

M&E helps to answer program related questions such as

- Is the program being implemented as planned
- Did target population benefited from the program
- Can improved health outcomes attributed to program efforts
- Which program activities are more effective and which are less effective

Emphasize that M&E is important because:

- What gets measured gets done
- If you're not measured you don't count

Show the following questions and ask the participants: What will you do – Monitoring or Evaluation?

- MOH wants to know if the ICCM program implemented in “Region B” is reducing infant death in that region
- RHB wants to know how many children have been vaccinated this year in their region

⁵ Nina Frankel et al: M&E Fundamentals – A Self-Guided Mini course; USAID / MEASURE Evaluation. 2007 [Most of the contents of this session are taken/adapted from this resource document]

- The Delivery Case Team Coordinator wants to know if the delivery care provided in the health centers in “ZONE Y” meets national standards of quality

Appreciate their answers and clarify misconceptions; make sure that the participants understand that the first one is Evaluation because it is concerned with measuring the impact of a program; the second activity is “Monitoring” because it is concerned with counting the number of children vaccinated; and the third one is also “Monitoring” because it is concerned with tracking something (the standards of quality in this case).

Explain that:

Monitoring

- Is an ongoing, continuous process of collection of routine data that measures program progress towards achieving program objectives
- Is used to track changes in program performance over time
- Is used to determine if activities need adjustments during the intervention to improve desired outcomes
- Permits decisions regarding effectiveness of the program and efficient use of resource
- is also referred to as “ PROCESS EVALUATION”

And,

Evaluation

- Measures how well the program activities have met expected objectives and/or
- It measures the extent to which changes in outcomes can be attributed to the program or intervention

Clarify that Program elements that can be monitored include:

- Service coverage
- Number of vaccine doses administered monthly
- Quality of services
- Supply inventories
- Patient outcomes

Provide the Handout “M&E Terminology Quiz” and ask the participants to match the M&E terminologies with their respective definitions.

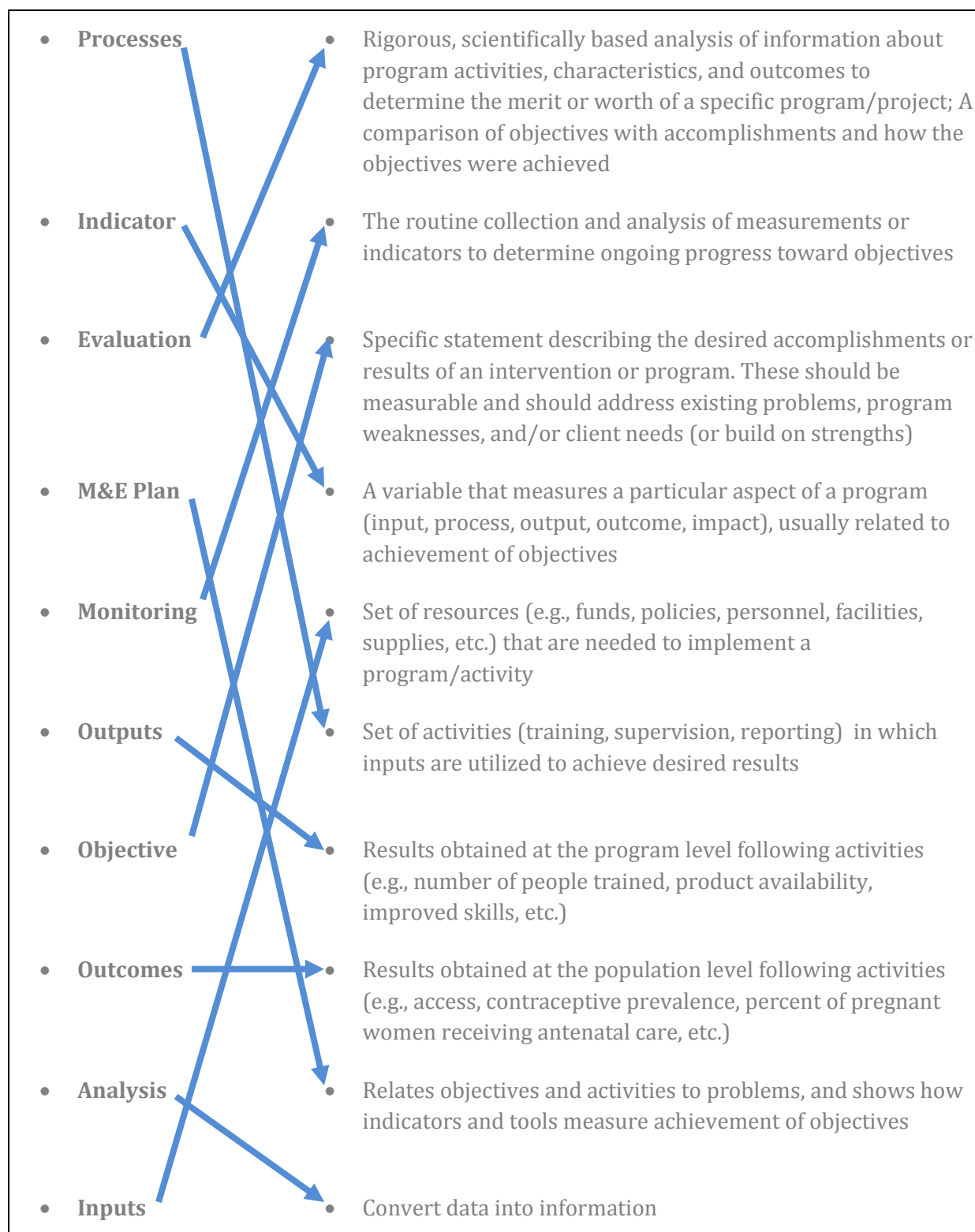
Handout: M&E Terminology Quiz⁶

• Processes	• Rigorous, scientifically based analysis of information about program activities, characteristics, and outcomes to determine the merit or worth of a specific program/project; A comparison of objectives with accomplishments and how the objectives were achieved
• Indicator	• The routine collection and analysis of measurements or indicators to determine ongoing progress toward objectives
• Evaluation	• Specific statement describing the desired accomplishments or results of an intervention or program. These should be measurable and should address existing problems, program weaknesses, and/or client needs (or build on strengths)
• M&E Plan	• A variable that measures a particular aspect of a program (input, process, output, outcome, impact), usually related to achievement of objectives
• Monitoring	• Set of resources (e.g., funds, policies, personnel, facilities, supplies, etc.) that are needed to implement a program/activity
• Outputs	• Set of activities (training, supervision, reporting) in which inputs are utilized to achieve desired results
• Objective	• Results obtained at the program level following activities (e.g., number of people trained, product availability, improved skills, etc.)
• Outcomes	• Results obtained at the population level following activities (e.g., access, contraceptive prevalence, percent of pregnant women receiving antenatal care, etc.)
• Analysis	• Relates objectives and activities to problems, and shows how indicators and tools measure achievement of objectives
• Inputs	• Convert data into information

Allow time for every participant to complete the task. Invite one of the participants and ask his/her match to one of the M&E terms given in the handout. Appreciate the correct answer, invite others if it is not the correct match and clarify if necessary. In this manner, ask the matches for all the terms mentioned in the handout.

⁶ M&E Basics: Goals, Objectives, Activities, Frameworks, Indicators, and Data Collection Tools. JSI (John Snow Inc.) M&E 101 ppt. Feb 11, 2009.

Answer sheet: M&E Terminology Quiz:



Show the slide⁷ comparing monitoring and evaluation and elaborate that:

Dimension	Monitoring	Evaluation
Frequency	Periodic, occurs regularly	Episodic
Function	Tracking / oversight	Assessment
Purpose	Improve efficiency, provide information for reprogramming to improve outcomes	Improve effectiveness, impact, value for money, future programming, strategy and policymaking
Focus	Inputs, outputs, processes, work plans (operational implementation)	Effectiveness, relevance, impact, cost-effectiveness (population effects)
Methods	Routine review of reports, registers, administrative databases, field observations	Scientific, rigorous research design, complex and intensive
Information source	Routine or surveillance system, field observation reports, progress reports, rapid assessment, program review meetings	Same sources used for monitoring, plus population-based surveys, vital registration, special studies
Cost	Consistent, recurrent costs spread across implementation period	Episodic, often focused at the midpoint and end of implementation period

Facilitate recap of the discussion on M&E by sharing slide on the following⁸:

⁷ 2011 The Global Fund to Fight AIDS, Tuberculosis and Malaria Monitoring and Evaluation Toolkit - Part 1: The Global Fund M&E requirements, 4th Edition

1. Monitoring is sometimes referred to as:
 - a. Evaluation
 - b. Impact Evaluation
 - c. Process Evaluation
 - d. Performance Evaluation
2. Evaluations measure:
 - a. The timeliness of a program's activities
 - b. The outcomes and impact of a program's activities
 - c. How closely a program kept to its budget
 - d. How well the program was implemented
3. At what stage of a program should monitoring take place?
 - a. At the beginning of the program
 - b. At the mid-point of the program
 - c. At the end of the program
 - d. Throughout the life of the program
4. Which of the following is NOT considered "monitoring"?
 - a. Counting the number of people trained
 - b. Tracking the number of brochures disseminated
 - c. Attributing changes in health outcomes to an intervention
 - d. Collecting monthly data on clients served in a clinic.

Answer: 1c; 2b, 3d, 4c

Clarify as necessary. Inform the participants that in the next part of the session we will discuss on M&E Plan and why it is important.

5.3 M&E plan and its components

Show the slides on M&E Plan and inform the participants that like any program planning, monitoring and evaluation activities also need a well-thought plan. Elaborate that:

⁸ M&E Fundamentals – A Self-Guided Mini course; USAID / MEASURE Evaluation

Monitoring & Evaluation Plan

- Is a fundamental document of any program
- It relates the objectives and activities to the problems the program is trying to address and shows how indicators and tools measure achievement of objectives
- It states how a program will measure its achievements and therefore provide accountability

Reiterate that:

The Functions of M&E Plan are to:

- State how the program is going to measure what it has achieved (ensure accountability)
- Document consensus (encourage transparency and responsibility)
- Guide M&E implementation (standardization and coordination)

Divide the participants into 5 groups. Provide them then following case scenario and ask them to develop an M&E plan accordingly:

Case Scenario:

Your organization (RHB, ZHD or WorHO as applicable) is implementing a malaria program (or any other program that you are familiar with and feel comfortable to work on its M&E Plan). Based on your knowledge of the program develop an M&E Plan for that program.

Allow 60 minutes for the participants to formulate the M&E plan.

Once completed, invite each group representative to present the group work. After presentation of each group, allow comments from other participants, Note their comments and responses on a flip chart.

After all the groups have presented, show the slide on M&E Plan components. Compare how each group has included these components in the plan.

Component of M & E Plan

- Introduction: Purpose of the program, stakeholders motivation, commitment & participation
- Program description and framework
- Detailed description of the plan indicators
- Data collection sources and data collection plan
- Plan for monitoring
- Plan for evaluation
- Plan for the utilization of the information gained
- Mechanism for updating the plan

Inform them that the most fundamental component of the M&E Plan is the Program Framework that:

- Describes the underlying assumptions on which the achievement of the program goal depends
- Describes the anticipated relationship between activities, outputs and outcomes
- Helps to determine the indicators to be selected for monitoring and evaluation, their data sources, and how that data will be used to monitor and evaluate various aspects of the program.

Refer back to the presentations made by the groups. If any one or more of the groups have presented a Program Framework, pick that/those frameworks. Appreciate their work and relate how that framework is linked to indicator selection and the monitoring and evaluation plan.

Reiterate that:

A program framework is a key component of the M&E plan and which helps to:

- Clearly understand program/project goals and measurable, long-term, short-term, and intermediate objectives
- Clearly define relationships between program/project inputs, processes, outputs, and outcomes, and between program/project activities and the external context (environmental factors)
- Select the indicators for monitoring and evaluation, their data sources, and how that data will be used to monitor and evaluate various aspects of the program

5.4 Program frameworks

Inform the participants that there are a number of Program Frameworks that are applied depending on the context. The commonly used frameworks are:

1. Conceptual framework
2. Results framework
3. Logic Model

Explain that⁵:

- **Conceptual framework**

Sometimes called a “research framework,” is useful for identifying and illustrating the factors and relationships that influence the outcome of a program or intervention. It helps to understand the relationships between all relevant systemic, organizational, individual, or other salient factors that may influence program/project operation and the successful achievement of program or project goals

- **Results framework**

Sometimes called “strategic framework,” results framework diagrammatically shows the direct causal relationships between the incremental results of the key activities all the way up to the overall objective and goal of the intervention. This clarifies the points in an intervention at which results can be monitored and evaluated. Results frameworks include an overall goal, a strategic objective (SO) and intermediate results (IRs).

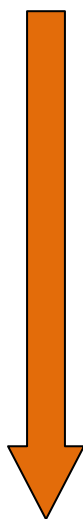
- **Logic model**

Sometimes called an “M&E framework,” illustrates the linear relationships flowing from program inputs, processes, outputs, and outcomes

Relate the M&E frameworks (if any) presented earlier by the participants with one of the above mentioned frameworks.

Elaborate that the Logic Model has five essential components⁵:

Logic Model



Input – the resources invested in a program e.g. technical assistance, computers, training

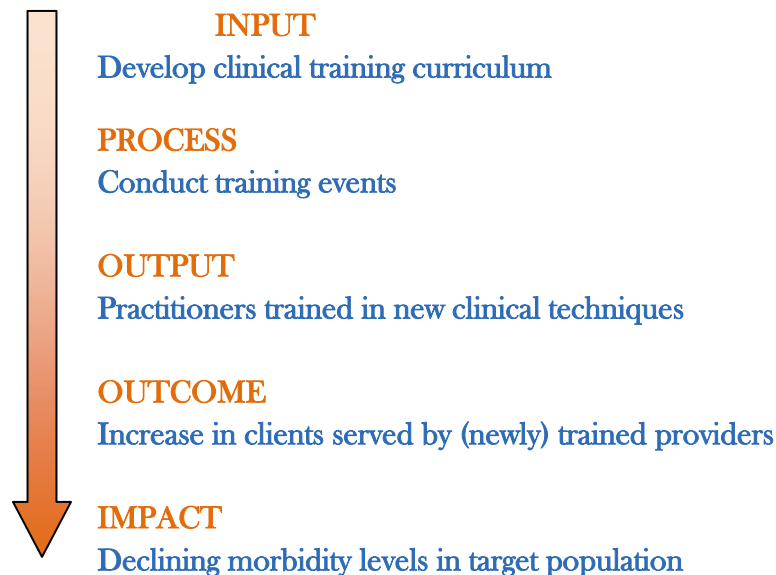
Process – the activities carried out to achieve the program’s objectives

Outputs – the immediate results achieved at the program level through the execution of activities

Outcomes – the set of short term and intermediate results at the population level achieved by the program through the execution of activities

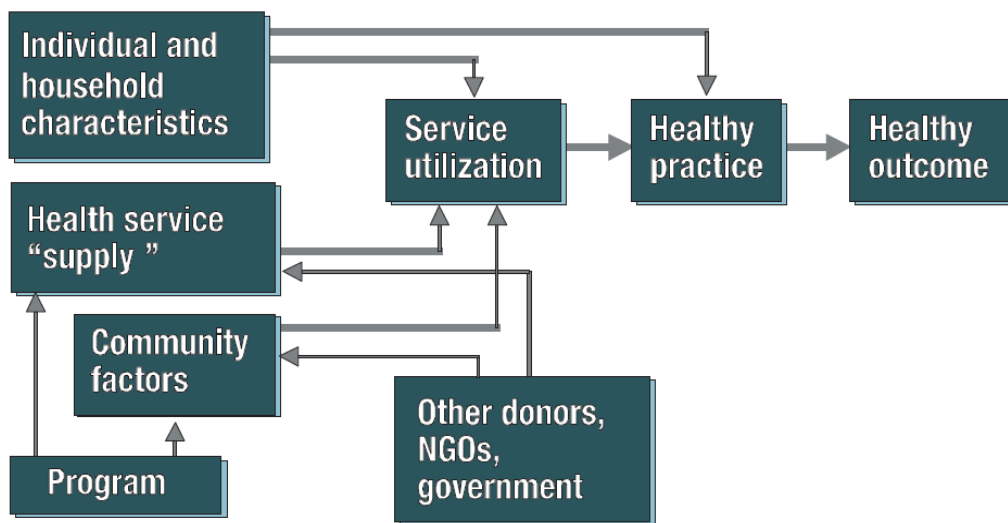
Impacts – the long term effects or end results of the program activities, e.g. changes in the health status

Show examples of Logic Model and explain that the Logic Model does not try to explain all the factors that may influence the project output and outcome/impact. Rather, this model provides a simplistic view of the project design and helps the managers and M&E planners to focus and plan monitoring and evaluation activities.

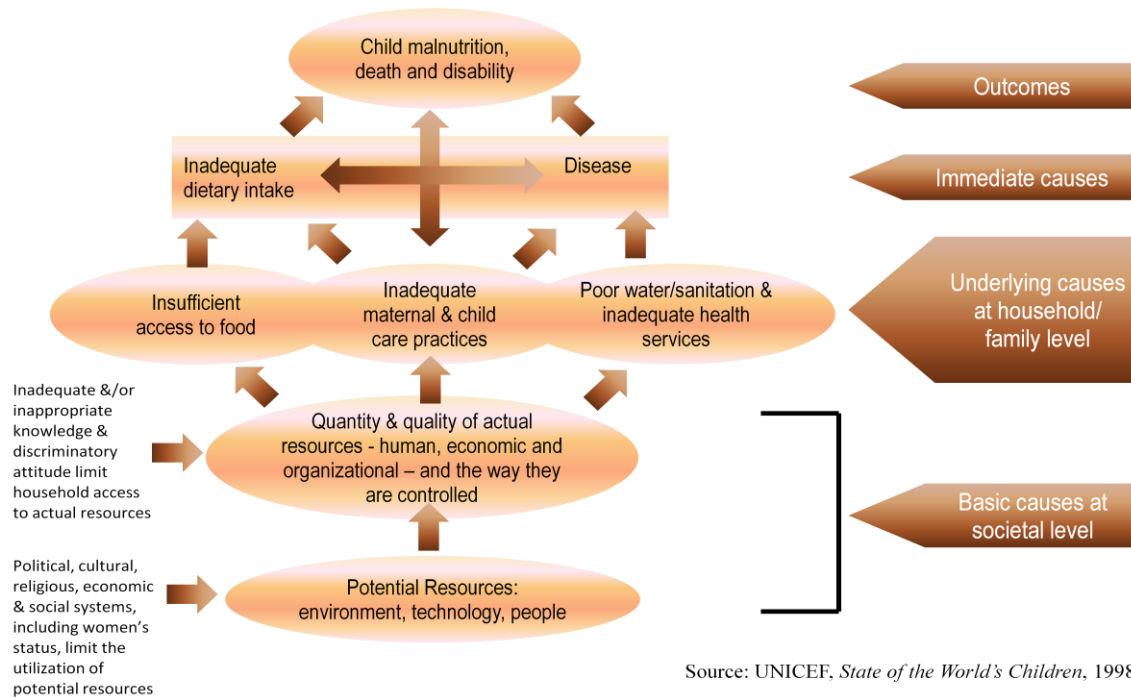


Briefly show examples of other frameworks and mention that conceptual framework is most useful for research purposes, and Results frameworks are mostly used by USIAD for project/program designs.

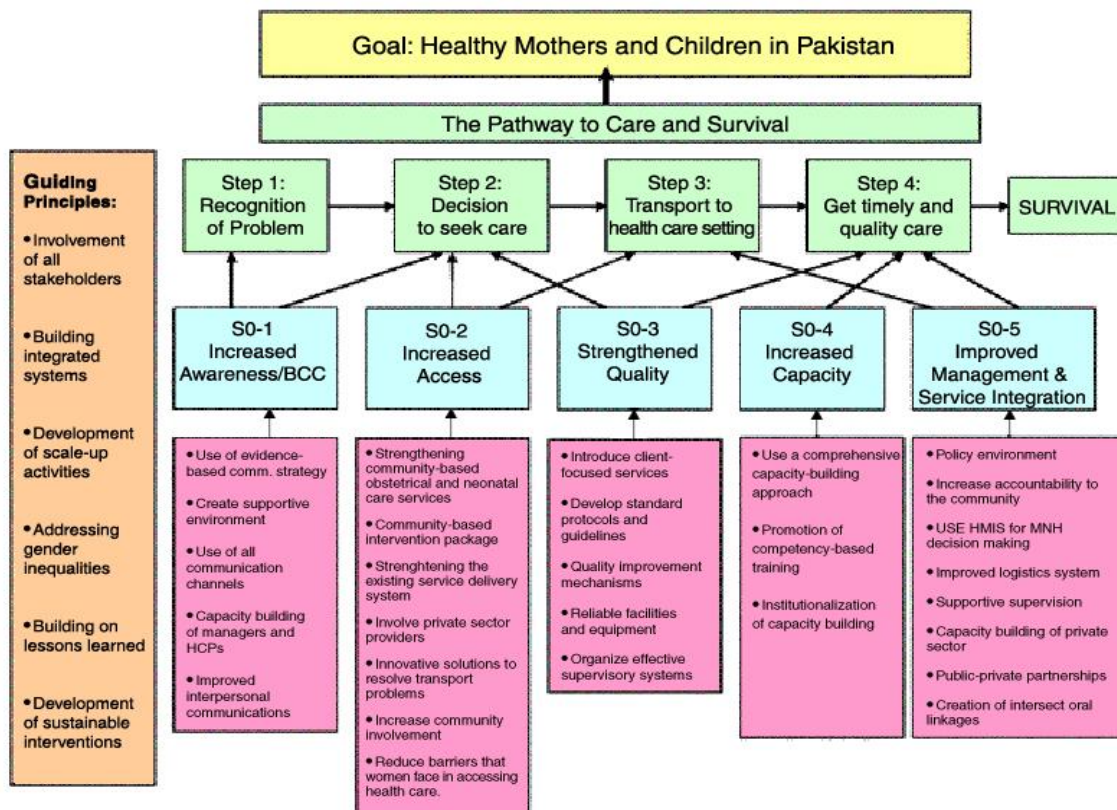
Conceptual Framework: Promoting Healthy Outcomes⁵



Conceptual Framework: Child Malnutrition, Death & Disability



Results Framework: Pathway to Care and Survival (USAID-PAIMAN Project)



Summarize the discussion on the M&E frameworks by going through and explaining the **Summary of Frameworks⁵**:

Type of Framework	Brief Description	Program Management	Basis for Monitoring and Evaluation
Conceptual	Interaction of various factors	Determine which factors the program will influence	No. Can help to explain results
Results	Logically linked program objectives	Shows the causal relationship between program objectives	Yes – at the objective level
Logic model	Logically links inputs, processes, outputs, and outcomes	Shows the causal relationship between inputs and the objectives	Yes – at all stages of the program from inputs to process to outputs to outcomes/ objectives

Session 6: Relationship of HMIS indicators with Health Programs

6.1 Session Objectives

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

- Explain how HMIS is used for monitoring program performance and strategy implementation by emphasizing on the following three programs:
 - Maternal Survival Intervention
 - Child Mortality and Child Survival Intervention
 - STOP TB Program

6.2 Relationship between M&E and HMIS indicators

Remind participants that the Logic Model (discussed in the previous session) forms the basis of selecting indicators for monitoring and evaluation of the program/project from inputs to processes to outputs to outcomes.

Inform the participants that we will be doing a case study to help understand how HMIS indicators are related to various programs.

Case study improving family and community practices

For the last few years there were substantial efforts to improve infant and child health and nutrition in town “A”. However, one out of five babies born in the town in a given year dies before they reach their 5th birthday, many of them during the first year of life. The Zonal Health Department recognized that improving the quality of care for sick children at the health facility alone would have a limited impact on reducing child mortality. Town A was, therefore, chosen as a pilot site for the development and implementation of a household and community-based approach to promote key household practices for child survival, growth and development.

Group Exercise: Divide the participants into four small groups. Each group will:

- Develop goal and objectives for a program aimed at improving family and community practice in town “A”.
- Develop a logic model for the program to improve infant and child health and nutrition in town “A”.
- List some of HMIS indicator that will help track the progress of this program.

Allocate 45 minutes to do the exercise and 10 minutes for presentation. One person from each group will make the presentation.

Reiterate that HMIS is a source of routine data that is necessary for monitoring different aspects of various health programs implemented in the country.

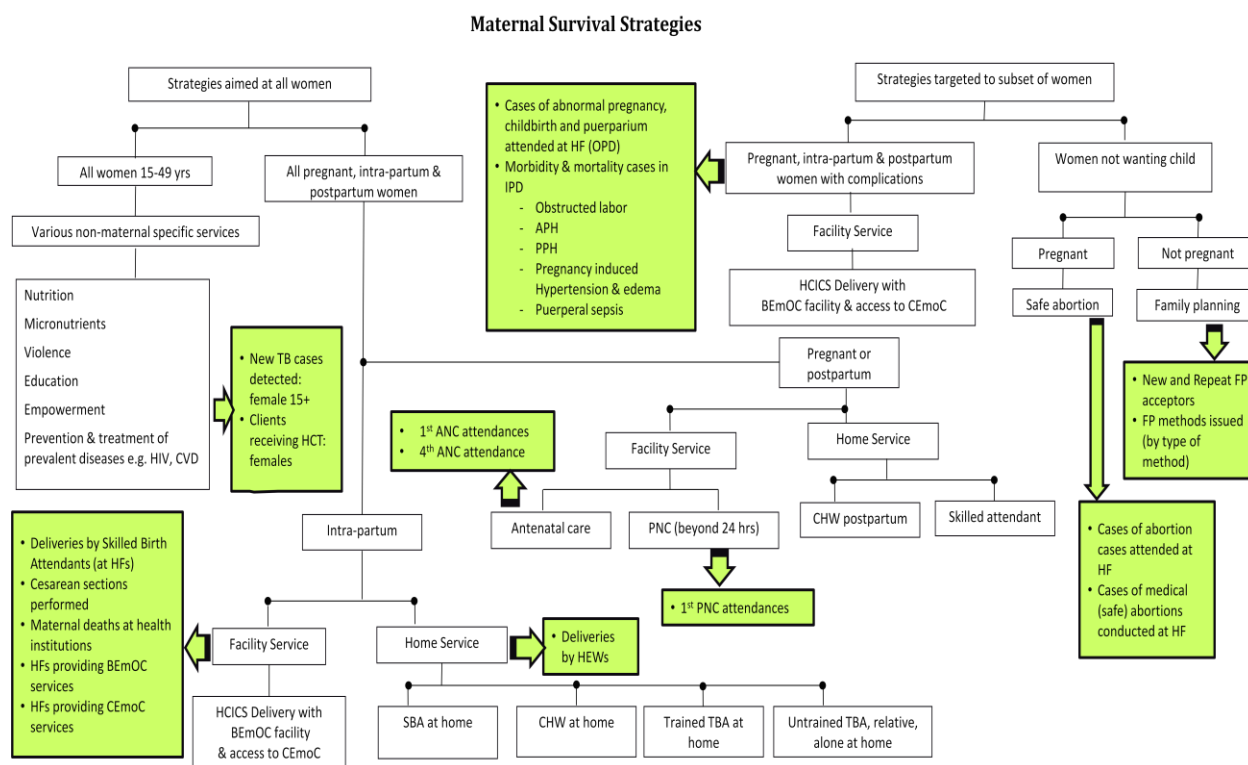
Inform the participants that in the next part of the session we will look into examples of some program frameworks and see how HMIS indicators are used for monitoring, and to some extent even evaluating, those programs.

6.3 HMIS and Maternal Survival Intervention

Ask participants if they are familiar with Maternal Survival Strategy and what it helps to achieve. Appreciate their answer and explain it as follows:

Maternal Survival Strategy is a framework for achieving the Millennium Development Goal (MDG) of reducing maternal mortality by implementing a package health facility oriented interventions.

Step wise display the slides on the different components of the Maternal Survival Strategy. As you explain the strategy encourage participants to identify the kind of interventions useful for the specific target group. Once interventions for target groups are identified, ask participants to identify HMIS indicators that will help to monitor the progress of the interventions.



Appreciate the responses. Show the slides that illustrate the relation of various interventions with HMIS indicators listed below:

HMIS Indicators for monitoring of Maternal Survival Strategies

- New and Repeat FP acceptors
- FP methods issued by type of method
- Cases of abortion cases attended at HF
- Cases of medical abortions conducted at HF
- 1st PNC attendances
- 1st ANC attendances
- 4th ANC attendances
- Deliveries by HEW
- New TB cases detected: female 15+
- Clients receiving HCT: females
- Deliveries by skilled birth attendants at HFs
- C- section performed
- Maternal deaths at health institutions
- HFs providing BEmOC services
- HFs providing CEmoC services
- Cases of abnormal pregnancy, childbirth and puerperium attended at HF
- Morbidity & mortality cases in IPD
- Obstructed labor, APH, PPH, Pregnancy induced hypertension & edema , Puerperal sepsis

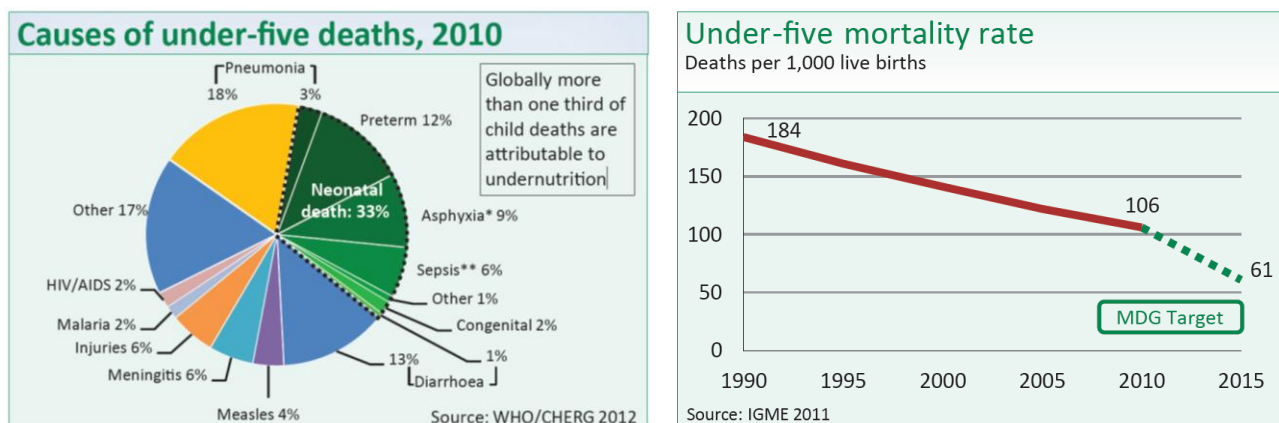
Encourage the participants to give some examples of how they can use these indicators for monitoring and evaluation of Maternal Survival Strategies.

Inform that participants that next we will see how HMIS is used to monitor the progress of child survival interventions.

6.4 HMIS & Child Survival Intervention

Show the slide on major causes of child-mortality and the under-5 mortality reduction target for Ethiopia⁹.

⁹ Countdown to 2015: Maternal, Newborn and Child Survival. Ethiopia Maternal and Child Health Data http://www.countdown2015mnch.org/documents/2012Report/2012/2012_Ethiopia.pdf



Ask participants if they can name some of the preventive and curative interventions that can help in achieving MDG of reducing under-5 mortality.

Appreciate their responses and explain that Ethiopia is implementing interventions targeting under-5 year old children through:

- Universal Immunization Coverage,
- nutrition program,
- Integrated Management of Childhood Illnesses and the Community Case Management of Childhood Illnesses
- Through Health Development Army to
 - improve water, sanitation and hygiene
 - Malaria prevention through Integrated Household Spraying and distribution of Insecticide Treated Nets (ITN)

Ask the participants to brainstorm and list the related HMIS indicators that show the progress in child survival interventions. Compare the results with the following table

HMIS Indicators to monitor Child Survival Interventions.

- Number of treatment of children under five – diarrhea, dysentery, pneumonia, measles, malaria, neonatal tetanus
- Number of infants immunized of measles
- Latrine coverage
- Safe water coverage
- Households with ITN

Appreciate the participants and invite them to review the TB Program and related HMIS indicators.

6.5 HMIS and STOP TB program

Ask participants if they are familiar with STOP TB Program and its purpose.

Appreciate their responses and explain it as follows:

STOP TB program is aimed in achieving the MDG goal of dramatically reducing burden of TB by 2015 through universal access to high quality care (diagnosis and patient treatment) for all people with TB including those co-infected with HIV and those with drug resistance TB.

Show the slide on STOP TB program. Ask participants to identify the HMIS indicators that are related to STOP TB program. Appreciate the responses and compare them with the HMIS indicators.

HMIS Indicators to Monitor STOP TB Program

- TB patients on DOTS
- Number of new smear pulmonary TB cases enrolled in the cohort
- TB Case Detection
- Number of New smear positive pulmonary TB cases detected
- Number of new smear negative pulmonary TB cases detected
- Number of new extra pulmonary TB cases detected
- HIV - TB - Co-infection
- Proportion of newly diagnosed TB cases tested to HIV
- HIV+ new TB patients enrolled in DOTS
- TB Treatment outcome
- Treatment completed PTB+
- Cured PTB+, Defaulted PTB+, Deaths PTB+

Session 7: Decision-making in the context of Performance Improvement

7.1. Session Objectives

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

- Describe purpose of Ethiopian health system, its mission and vision
- Analyze, interpret and present health data in the context of using HMIS data for decision-making
- Apply various techniques of root cause analysis, generating interventions and prioritization

7.2. What is the purpose of the Ethiopian Health System and what are we striving for?

Inform the participants that in this session we will be discussing decision-making for performance improvement in the overall context of the Ethiopian Health System.

Ask the participants what do they think is the overall purpose of the Ethiopian Health System. Note their responses on a flip chart. Appreciate their responses and reiterate that:

Overall Mission of the Ethiopian Health System

To reduce morbidity, mortality and disability and improve the health status of the Ethiopian people through providing and regulating a comprehensive package of promotive, preventive, curative and rehabilitative health services via a decentralized and democratized health system.

Ask the participants to elaborate the Vision statement for the Ethiopian Health System as mentioned in HSDP document, which is:

Vision of Ethiopian Health Sector

To see healthy, productive and prosperous Ethiopians

Distribute copies of the Handout on excerpts from the 'Ethiopian Health Sector Strategy' to the participants. Allow 15 minutes to the participants for going through the handout.

Handout: Ethiopian Health Sector Strategy *(taken from Ethiopian Health Sector Development Program (HSDP) IV documents)*

3.4.2 Strategic themes and strategic results

The strategic themes of the HSDP-IV are the focus areas where the health sector should excel to achieve its objectives and targets.

Strategic themes of the health sector:

- Excellence in health service delivery and quality of care
- Excellence in leadership and governance
- Excellence in health infrastructure and resources

Table 8. Summarised priorities and targets of HSDP-IV

Priorities	Impact	Outcome	Vehicles	Blood lines
Maternal & Newborn Health	MMR 267/100,000	CPR= 66% Deliveries attended by skilled birth attendants= 62%	Health Post 1: 3000-5000 population	<ul style="list-style-type: none"> • Health Extension Program • Health Development Army • Supply chain management • Regulatory system • Harmonisation & Alignment • Health Care Financing • Human Resource Development • Health Information System • Continuous quality improvement program • Referral system
Child Health	U5MR 68/1000 IMR 31/1000	Fully Immunised= 90% Pneumonia treatment = 81%	Health Centre 1: 15,000-25,000 population (rural) 1: 40,000 urban	
HIV/AIDS	HIV incidence 0.14	ART =484,966 PMTCT= 77%	Primary Hospital 1: 60,000-100,000 population	
TB	Mortality from all forms of TB = 20/100,000	TB case detection (All forms) 75%	General Hospital 1: 1,000,000-1,500,000 population	
Malaria	Lab confirmed Malaria incidence <5 per 1000	Pregnant women who slept under LLIN the previous night =86% Increase proportion of U5 children who slept under LLITN the previous night = 86%.	Comprehensive Specialised Hospital 1: 3,500,000-5,000,000 population	
Nutrition	Stunting prevalence 30%			

3.6.3 Performance indicators, targets & initiative by strategic objective

SO C1: Improve access to health services

SO C.1.1: Maternal, neonatal, child & adolescent health

Targets:

1. Decrease maternal mortality ratio from 590/100,000 live births to 267/100,000
2. Decrease institutional maternal death to <1
3. Increase FP use (CPR) from 32% to 66%
4. Decrease unmet need for FP from 34% to 10%
5. Reduce Adolescent fertility rate from 17% to 5%
6. Increase ANC coverage at least one visit from 68% to 90% & ANC coverage at least four visit from 31% to 86%
7. Increase deliveries attended by skilled birth attendants from 18.4 to 62%
8. Increase postnatal care coverage from 34% to 78%
9. Increase proportion of deliveries of HIV+ women that receive full course of ARV prophylaxis from 8% to 77%
10. Decrease under-five mortality rate from 101/1000 live births to 68/1000
11. Decrease infant mortality rate from 77/1000 live births to 31/1000
12. Increase Protection at Birth (PAB) against neonatal tetanus from 42% to 86%
13. Increase Pentavalent 3, Measles, Full immunisation, Rotavirus &
- Pneumococcal immunisation coverage from 82%, 77%, 66%, 0%, & 0%, to 96%, 90%, 90%, 96% & 96% respectively.
14. Increase proportion of asphyxiated newborns that are resuscitated from 7% to 75%, & newborns with neonatal sepsis that get treatment from 22% to 74%, respectively.
15. Roll out community case management for common childhood illnesses in all health posts & increase proportion of health centres & hospitals that implement IMNCI to 100% from 52% & 62% respectively.
16. Increase availability of adolescent & youth friendly RH services to 100% of hospitals & health centres.

Emphasis of HSDP IV

Increase skilled attendance of delivery through:

- Accelerated training of midwives and emergency surgeons.
- Equip HC with BEmONC
- Equip all Hospitals including Primary Hospital to provide CEmONC.
- Improve availability of safe blood and pharmaceutical supplies.
- Improving referral system.

PMTCT will be enhanced through:

- Integration with MNCH
- Link with HEP.
- Community mobilisation.
- Improving ANC and institutional delivery coverage
- Routine HIV testing during ANC.
- Improving service accessibility.
- Public private partnership.
- Ensuring male involvement.
- Involving PLHIV

Initiatives:

1. Strengthen & expand community- & facility-based maternal, newborn, child & adolescent health services.

- 1.1 Scale up family planning programme (community based FP services, social marketing, facility based & outreach long acting & permanent FP service provision)
- 1.2 Scale up of midwife training.

- 1.3 Scale up BEmONC, CEmONC.

- 1.4 Conduct maternal death Auditing

- 1.5 Service Integration with emphasis on RH-HIV integration, (in particular FP-HIV prevention linkages through common messages & dual protection) & harmonised approach among all partners.

- 1.6 Referral system including paediatric referral system.

- 1.7 Routine immunisation & wild polio eradication.

- 1.8 Establish newborn corners and ICU in PHCU

- 1.9 Expand community & facility IMNCI.

- 1.10 Enhanced Youth Friendly services.

- 1.11 Capacity building on program management for maternal & child health services.

- 1.12 Health Extension Programme

- 1.13 Special, locally relevant & effective maternal & child health intervention to pastoralist areas

SO C.1.3: Hygiene & environmental health

Targets:

1. Increase proportion of households using latrine from 20% to 82%
2. Increase proportion of villages (Kebeles) free of open defecation from 15% to 80%
3. Increase proportion of households using household water treatment & safe storage practices from 7% to 77%

SO C.1.2: Nutrition

Targets

1. Increase proportion of severely malnourished under-5 children that are adequately managed from 23% to 91%.
2. Achieving malnutrition cure rate > 75%, defaulter rate < 15% & mortality rate < 5% in Therapeutic feeding programmes (TFPs) (inpatient & outpatient therapeutic programme).
3. Increase proportion of children 6-59 months old given Vit-A supplements every 6 months from 95% to 99%
4. Increase proportion children 2-5 years receiving de-worming every 6 months from 86% to 96%
5. Increase proportion of pregnant women supplemented with iron during their pregnancy from 10% to 86%
6. Decrease wasting prevalence among children under-5 from 11% to 3%; & stunting prevalence from 47% to 30%
7. Increase proportion of newborns breastfed within one hour of birth (initial breastfeeding) from 69% to 92%
8. Increase proportion of 0-6 month old infants on exclusive breast feeding from 49% to 70%
9. Increase percentage of 6-9 month old infants on complementary food & continued breastfeeding from 54% to 65%
10. Reduce prevalence of anaemia in women of childbearing age (15-49) from 27% to 12%
11. Increase households using iodised salt from 4% to 95%

Initiatives

1. Sustain Enhanced Outreach Strategy (EOS) with Targeted Supplementary Food (TSF) & transition EOS into HEP
2. Health facility nutrition services
3. Community-Based Nutrition (CBN).
4. Micronutrient interventions
5. Essential Nutrition Actions/Integrated Infant & Young Feeding counselling services
6. Institutional strengthening for nutrition policy & programme implementation & monitoring.
7. Health Extension Programme

Initiatives:

1. Proper & safe excreta disposal system
2. Proper & safe solid & liquid waste management
3. Water supply safety measures
4. Food & hygiene safety measures
5. Healthy home environment
6. Arthropods & rodent control
7. Personal hygiene
8. Health Extension Programme

SO C.1.4: Prevention & control of major communicable diseases

Reduce incidence & prevalence of HIV/AIDS

Targets:

1. Provide HCT (VCT+PITC) to 9.27 million people annually
2. Increase percentage of people aged 15-24 using condom consistently with non-regular partners from 59% to 95%
3. Increase proportion of eligible children who are receiving ART to 95%
4. Increase proportion of eligible pregnant women receiving ART to 95%
5. Increase proportion of eligible adults receiving ART from 53% to 95%
6. Increase number of patients ever started on ART from 246,347 to 484,966
7. Increase number of STI cases treated from 39267 to 180,000.
8. Reduce incidence of HIV in adults from 0.28% to 0.14%
9. Increase proportion of population aged 15-49 years with comprehensive knowledge of HIV/AIDS from 22.6% to 80%

Targets:

1. Increase TB case detection rate (All forms) to 75%
2. Increase TB treatment success rate from 84% to 90%
3. Put 100% of confirmed MDR TB cases on correct second line Anti-TB treatment regimen
4. Increase proportion of PLHIVs screened for TB from 15% to 80%
5. Increase Tuberculosis Cure Rate from 67% to 85%

Initiatives

1. Expansion of Community DOTS through maximum use of HEP
2. Strengthen case detection & management:
 - 2.1 Ensure early case detection, & diagnosis through quality-assured bacteriological diagnosis.
 - 2.2 Provide standardized treatment with supervision, & patient support.
 - 2.3 Ensure effective drug supply & management.
3. Addressing TB/HIV, MDR-TB & Leprosy;
 - 3.1 Scale-up collaborative TB/HIV activities.
 - 3.2 Scale-up prevention & management of multidrug-resistant TB (MDR-TB).

Emphasis of HSDP IV

TB Case detection will be enhanced through;

- Effective use of HEP as a vehicle to detect new cases, contact tracing & treatment follow up.
- Strengthened laboratory network.
- Improving information systems, including notification & referral routines.
- Correct estimation & regular updating of the TB burden.

- 3.3 Address needs of TB contacts, & of poor & vulnerable populations.
- 3.4 Strengthen early detection of leprosy at community & facility level
4. Engaging all care providers,
 - 4.1 Involve all public, voluntary, corporate & private health care providers.
 - 4.2 Promote the use of the International Standards for Tuberculosis Care (ISTC).
5. Enabling & promoting research.
 - 5.1 Implementation of operational research on the effectiveness of DOTS expansion & TB/HIV collaborative strategies
6. Health Extension Programme

Reduce incidence & prevalence of malaria

Targets:

1. 85% of children under 5 years old with fever in last 2 weeks who received diagnosis within 24 hours from onset of fever
2. Reduce lab confirmed (RDT/Microscopy) malaria case fatality ratio to less than 2%
3. Reduce lab confirmed (RDT/Microscopy) malaria incidence per year to less than 5 per 1000 population per year
4. Increase proportion of households in malarious areas who own at least one LLITN from 65.6% to 90%.
5. Increase proportion of pregnant women who slept under LLITN the previous night from 42.5% to 86%.
6. Increase proportion of U5 children who slept under LLITN the previous night from 41.2% to 86%.
7. Proportion of households in IRS-targeted areas that were sprayed in the last 12 months from 55% to 77%.

Initiatives

1. Early diagnosis & treatment of cases
 - 1.1 Improve the capacity of health workers in the diagnosis & case management of Malaria at health post level according to the national Guideline.
 - 1.2 Improve the capacity of health workers in the management & diagnosis of severe malaria at health centre & hospital levels according to national guidelines.
 - 1.3 Ensure the availability of essential commodities for the diagnosis & treatment of malaria
2. Selective vector control (LLITN, IRS, Environmental management)
 - 2.1 Geographical targeting & flexible distribution strategies for LLITN
 - 2.2 Procurement, distribution & storage of insecticide & spray materials & implementation of IRS via Health Extension Program; & ensure public acceptance, practice, & participation in IRS programs
 - 2.3 Environmental compliance
3. Health Extension Programme

SO P1: Improve quality of health services

Targets

- | | |
|---|--|
| 1. Increase customer satisfaction index from 50% to 100% | 4. Increase outpatient attendance per capita from 0.2 to 0.7 |
| 2. Increase bed occupancy rate from 50.8% to 85% | 5. Increase % of emergency patient receiving emergency care in less than 5 minutes from 50% to 100%. |
| 3. Decrease average length of stay from 6.7 days to 5 days. | |

Initiatives

- | | |
|--|--|
| 1. Strengthen emergency management system. | Infection Prevention, Medical record standard, etc. |
| 2. Implement Quality management such as Nursing standard, laboratory standard, | 3. Provision of safe & adequate blood for transfusion |
| 4. Establishing a well functional referral system | 6. Performance monitoring & quality standard operational procedures process |
| 5. Regulatory service to both public & private sector institutions | 7. Integrate related health programs at management & service delivery levels |

Ask the participants to answer the following questions from the handout.

- Q1. What is one of the initiatives at health center level to reduce incidence & prevalence of malaria?
- Q2. What are the four priority areas under Health Sector Development Program (HSDP)?
- Q3. What are the targets for maternal health initiatives that would lead to reduction in maternal mortality?
- Q4. What are the strategic themes of the Ethiopian Health Sector?
- Q5. For which of the HSDP indicators data come from HMIS?

Appreciate the responses and clarify, if necessary.

7.3. Managing Health Systems' Performance for Improving Health

Reiterate that the HSDP document clearly lays down the performance targets for the health sector.

Ask how we will know that the health system is realizing its vision or achieving its targets.

Appreciate that this can be done by comparing the existing status with the expected results or outcome targets.

Divide the participants into 4 or 5 groups. Distribute the following exercise to each group. Assign one region to each group.

Exercise

You want to assess the performance of maternal health program in your assigned region.

- 1. What are the key maternal health program related questions in your mind that you want to be answered?

You have been provided the following data sets.

Maternal Health Program Data

HSDP IV Core Performance Targets:

- MMR – 267/100,000
- CPR – 66%
- Deliveries by SBA – 62%

	EFY	Tigray	Afar	Amhara	Oromia	SNNPR	National
Total Number of Expected Pregnancies	2004						
	2005	175,232	46,160	517,218	1,200,299	670,540	2,915,257
Total Number of Expected Deliveries	2004	173,475	27,395	622,134	1,192,621	641,936	2,983,813
	2005	163,842	44,083	493,944	1,192,235	639,027	2,828,460
		157,704	24,904	565,577	1,117,212	583,578	2,780,631

Number of Deliveries attended by SBA							
		Tigray	Afar	Amhara	Oromia	SNNPR	National
EFY 2003	Baseline	32,881	3,586	87,319	206,742	76,200	485,809
		18.4%	7.4%	13.0%	17.7%	11.7%	16.6%
EFY 2004 Target	Deliveries to be attended by SBA	122,012	11,707	227,576	348,579	203,390	1,067,705
EFY 2004 Achieved	Deliveries attended by SBA	48,679	6,194	85,793	290,300	89,044	615,256
EFY 2005	Deliveries to be attended by SBA	95,939	9,694	339,064	521,665	230,651	1,363,300
The most recent live births in last 5 years (DHS 20011 – i.e. 2003 EC)		11.6%	7.2%	10.1%	8.1%	6.1%	10.0%

Contraceptive Acceptance Rate							
		Tigray	Afar	Amhara	Oromia	SNNPR	National
EFY2003	Baseline	625,285	19,461	3,244,944	3,460,349	2,129,629	9,956,168
		66.7%	6.4%	88.6%	61.7%	70%	61.7%
Target	EFY 2004	747,221	112,360	3,531,980	4,707,190	2,748,264	13,075,505
		78.7%	38.8%	90%	81.6%	81.2%	76.5%
Achieved	EFY 2004	550,762	63,623	3,176,229	3,502,801	2,315,101	10,043,469
		56.8%	20.1%	84.7%	60.8%	74%	60.4%
Target	EFY 2005	817,402	144,207	3,474,536	4,633,812	2,643,588	13,077,017
		79.9%	38.4%	88.9%	80.6%	75%	76.7%
CPR (currently using contraceptive as of 2011 DHS i.e. 2003 EC)		22.2%	9.5%	33.9%	26.2%	25.8%	28.6%

Antenatal Care							
		Tigray	Afar	Amhara	Oromia	SNNPR	National
Baseline	EFY2003	156,367	12,785	581,242	925,358	551,610	2,403,088
		87.6%	26.4%	86.2%	79.3%	84.7%	82.1%
Target	EFY 2004	157,709	22,334	445,152	1,015,407	595,258	2,482,306
Achieved	EFY 2004	185,004	15,537	594,973	1,017,215	646,725	2,681,422
Target	EFY 2005	173,475	15,114	575,272	1,079,325	622,678	2,701,441
DHS 2011, i.e. 2003 EC		50.1%	32.3%	33.6%	31.3%	27.3%	33.9%

Postnatal Care (at least one PNC within 42 days after delivery)							
		Tigray	Afar	Amhara	Oromia	SNNPR	National
Baseline	EFY2003	84,206	1,489	226,720	485,623	297,564	1,230,433
Target	EFY 2004	107,948	17,005	309,132	663,376	443,445	1,708,906
Achieved	EFY 2004	91,678	1,593	307,304	503,856	361,180	1,338,418
Target	EFY 2005	115,456	5,741	405,945	790,994	439,548	1,929,528

Data sources

- HSDP IV: Woreda-based Health Sector Annual Core Plan EFY 2004 page 20
- HSDP IV: Woreda-based Health Sector Annual Core Plan EFY 2005 page 21

2. Analyze the data given above and organize them as graphs, tables or narrative
3. Answer the following:
 - a. What are your key findings?
 - i. What is the situation in your assigned region?
 - ii. What important key question(s) remained unanswered?
 - iii. What additional data do you need to answer those unanswered questions?
 - iv. From where or how can you get those additional data?
 - b. How do you interpret or explain your findings?
 - i. What do you think are the reasons for such a situation in the region?

Allow 90 minutes for the participants to complete their task.

Reconvene in plenary session.

7.3. 1. Identifying questions of interest and prioritizing them¹⁰

Ask the participants, what were their key questions that they wanted to know in order to say that the maternal health program in their assigned region was doing good or not?

List the questions on a flip chart and ask which of these questions they were able to answer using the given data? Did these answers provided them sufficient understanding of the program to decide whether the program was working well or not?

Pick one of the unanswered questions from the list and ask

2. How that question could lead to better understanding of the program performance?
3. What indicator would they use to answer that question?
4. What would be the data source(s) for that indicator?

Facilitate discussion and inform the participants that it is important to give priority to those key programmatic questions that are relevant, could be easily answered using available data sources and would lead to actions.

¹⁰ USAID / MEASURE Evaluation: 7 Steps to Use Routine Information to Improve HIV/AIDS Program

Invite each group to present their findings and the conclusions they have derived from the analysis. Allow each group 15 minutes to present their findings and conclusions. At the end of all the presentations, appreciate the groups on how they have used different techniques to present their findings and how such presentations have helped them to come to a conclusion.

7.3. 2. Analyzing Data using Data Presentation Techniques

Ask the participants what were some of the procedures they carried out to analyze their data? Appreciate that calculating percentages, comparing the achievement with the baseline and the target, comparing the performance with other regions or with the national average were some of the procedures that help in transforming raw data into information that is meaningful, relevant and understandable.

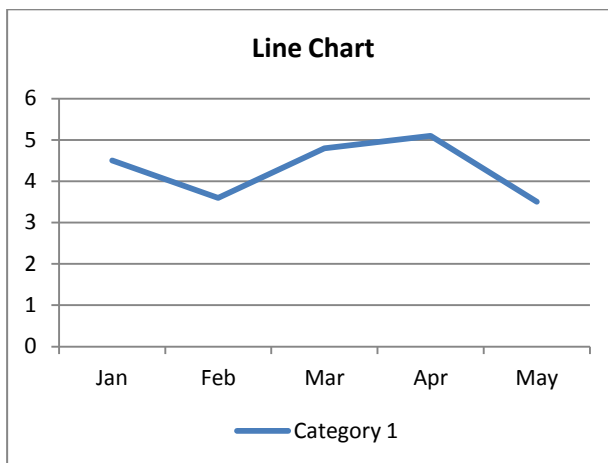
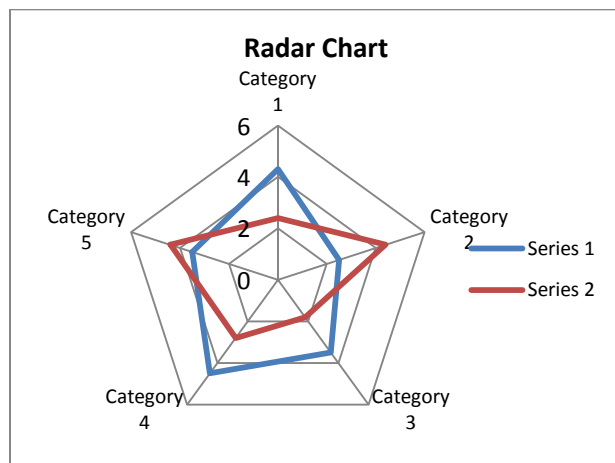
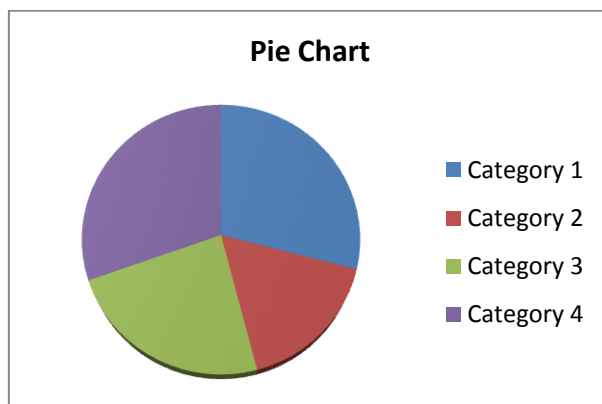
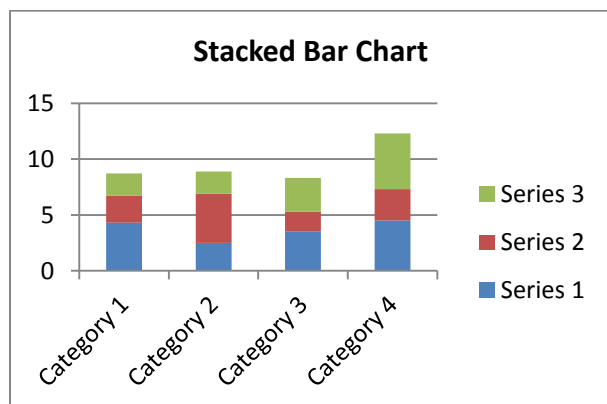
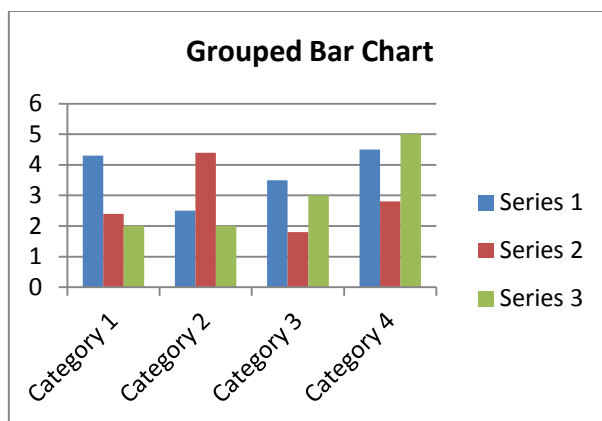
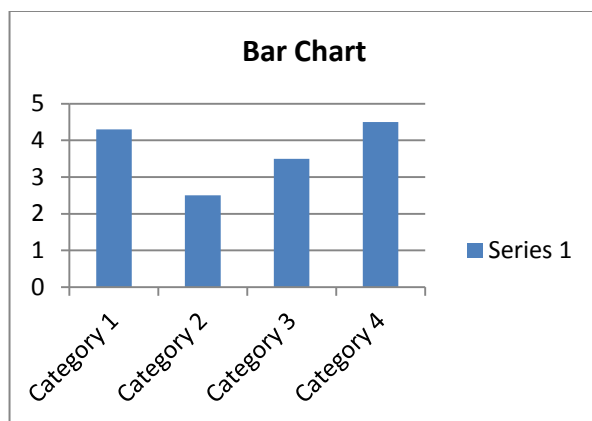
Reiterate that for the purpose of data analysis, graphs or charts are very helpful in visualization trends, comparing similar data sets or representing proportions. However, sometime tables or narratives can transmit the message or finding in way that is easily understandable.

Show the slide below and elaborate:

Type of data analysis	Type of Chart/Diagram Used	Data Needed
Frequency of occurrence: Simple percentages or comparisons of magnitude	Bar chart Pie chart Pareto chart	Tallies of category (data can be attribute data or variable data divided into categories)
Trends over time	Line graph Run chart	Measurements taken in chronological order (attributes or variable data can be used)
Distribution: Variation not related to time	Histograms	Large number (40 or more)of measurements (not necessarily in chronological order, variable data)
Association: Looking for a correlation between two things	Scatter diagram	Large number (40 or more)of paired measurements (measures of both things of interest, variable data)

(Taken from: QA Monograph – A Modern Paradigm for Improving Healthcare Quality: USAID Quality Assurance Project).

- Line graphs: are usually used to show time trends; provide a picture of variation in some events over time; e.g. prevalence of malaria over 5 years
- Bar charts: are used to compare categories of data; e.g. prevalence of malaria in different regions of Ethiopia



- Pie charts: are used for presenting relative proportion of various data items to the whole; e.g. proportion of households in a woreda having ITNs
- Radar graph: is a useful way of displaying three or more quantitative variables in one visual medium. It has its zero starting point in the center and each variable represented in one of the axes protruding out from that center. Radar graph can be used to demonstrate the relative status/performance of various program components.

7.3.3. Data interpretation

Elaborate that data interpretation is a participatory process where relevant stakeholders are engaged to review the findings and draw a conclusion and meaning of the analysis within the respective institutional context, the program strategies and the cultural, community and environmental perspective. The process of data interpretation helps in relating the findings with the factors that could have influenced the program performance and in determining its root causes.

Use the conclusions drawn by each group as examples and discuss how they have used their contextual knowledge to derive a meaning of the findings and to conclude.

Ask the participants what would be the logical next step once we have derived a conclusion from the data. Appreciate the responses and reiterate that:

- If the findings show that there is no particular problem or issue and the program is progressing well towards achieving its targets, we may simply continue with the activities as it is. Alternately, we may still want to document and learn lessons from the success of the program.
- If the findings show that the program is not progressing well, we would like to know why it is so, understand the factors influencing the performance, decide on solutions and monitor the implementation of the solutions and the progress of the program performance.

Re-emphasize that in the exercise we did not look into only one maternal health program indicator, rather different key indicators were reviewed to provide a better understanding of the overall program performance rather than only one aspect of the program.

For example, high antenatal care coverage with lower percentage of deliveries attended by SBAs will have a different meaning than if we only try to access the program using SBA coverage as the only indicator. Adding more of the key indicators in the analysis can help in appreciating the situation better.

7.3.4. Root Cause Analysis and Prioritization

Ask the participants what do we they understand by “Root Cause” analysis. Appreciate their responses and explain that root-cause analysis is a procedure to dig down the main reason(s) that are causing gaps in the program performance.

Ask the participants if they know some of the processes for root cause analysis. List them on the flip chart and appreciate that there are a number of ways to carry out root cause analysis. Some of those procedures are:

- Tree Diagram – 5 WHYS
- Fish-bone Diagram

Emphasize that a particular problem or event may be the result of a particular cause, but quite often many factors come into play giving create a particular problem or a desired state. These two

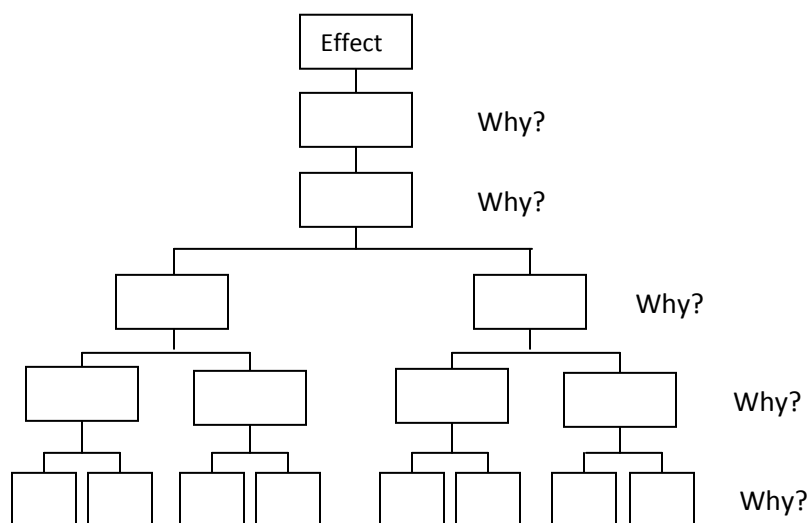
methods allow generating and sorting assumptions about the possible causes of a particular problem or event. Such exercises of hypothesizing the cause-and-effect relationship are most useful when carried out in a participatory manner engaging the stakeholders. This allows reflection of everyone's knowledge and their wisdom about a particular program and promotes consensus building. Thus, during a Performance Review Team meeting such methods can be applied to find possible root cause of an issue identified through data analysis. However, further exploration of facts may be necessary to confirm the ideas put forward in these diagrams.

Tree Diagram – 5 WHYS

Ask the participants if they are familiar with the Tree Diagram. Encourage them to explain how it works. Appreciate their responses and reiterate that:

The Tree Diagram (Chain of causes) starts with laying down the immediate or major causes of the effect/problem. Each major cause is then further explored by asking “Why did this happen?” The second layer of causes is further explained by repeating the question “Why did this happen?” Such questioning continues for looking in-depth to find the root cause. The root cause is the one that is convincing and can explain the effect directly or through a series of events initiated by it, is amenable to action and addressing it will solve or reduce the problem.

The Tree Diagram



Fishbone diagram

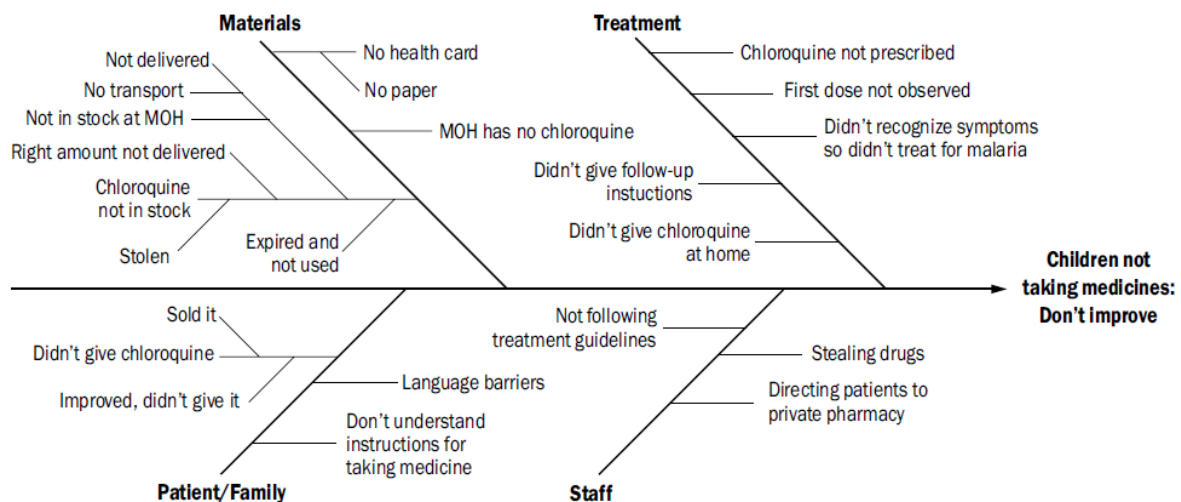
Show the slide on fishbone diagram and invite the participants to explain how the fishbone exercise works. Appreciate their responses and elaborate that:

Fish bone diagram helps to organize the causes according to various categories. The type of categories chosen depends on the context. For example, for Balanced Scorecard four categories are assessed:

- Environmental - those factors outside the influence of the organization, such as governmental regulations, the economic cycle, local, national and global politics, etc.
- Organizational - systems inside the organization such as organizational strategy, human resources, financial and other resources, policies, procedures, organizational structure, pay, etc.
- Group or departmental - work processes, group relationships, work responsibilities, work assignments
- Individual - personality, management style, skills, behaviors.

For health programs, people, families and/or community are also considered as one of the categories.

Show the example of a fishbone diagram used to find the causes of children not improving following malaria treatment. (Taken from: *QA Monograph – A Modern Paradigm for Improving Healthcare Quality: USAID Quality Assurance Project*).



Tell the participants that in this context where treatment of malaria was a concern, the categories used for cause-and-effect analysis were materials, treatment procedure, staff skills and behavior and patient/family.

Emphasize that selection of the categories should be done in a participatory manner through consensus using prior knowledge and understanding of the program.

Exercise: Root Cause Analysis

Ask the participants to re-organize in their groups. This time each group will brainstorm on the possible root-causes of the gaps they found in the maternal health program in their respective assigned region. The group can use any of the technique to do the root-cause analysis.

Allow 45 minutes for the group work.

Reconvene in plenary session. Ask each group to present their work. Allow time for review and discussion of each group's work in the plenary.

Appreciate the groups and inform them that in the next session the participants will use data from eHMS to conduct data analysis and performance review.

7.3. 5. Deciding solutions/interventions

Ask the participants what is the next logic step once a root cause has been identified. Appreciate that the next step is to decide on solution(s) or intervention(s) to resolve the problem.

Inform that formulating solutions and deciding which one to choose is also a participatory process and involves engaging the stakeholders. Sometimes the cause of the problem is straightforward and deciding on a solution does not need much discussion. However, in many occasions the issue is complex and various alternative solutions may be put forward to address the problem. In such a situation prioritizing the solutions and selecting the most appropriate one or ones is necessary.

Inform that there are many ways to prioritize the solutions. Decision makers use various criteria to prioritize and select the solutions.

Show the following table and explain that in this the criteria used for prioritization are:

- Time required to implement the solution
- Cost of implementation
- Potential for improving the situation
- Availability of resources

Criteria (Rank 1-3)	Action 1	Action 2	Action 3
Time to implement 1= most; 3 =least time			
Cost to implement 1=highest; 3= least cost			
Potential for improving in the long term 1= least; 3= most potential			
Availability of resource 1=least; 3= most available			
Total			

The high scoring intervention is selected for implementation.

Tell the participants that another example of prioritization criteria is as follows:

Potential Solutions	Magnitude <i>Large scale = 4</i> <i>Medium scale = 3</i> <i>Low Scale = 2</i> <i>Very Low Scale = 1</i>	Feasibility <i>Highly feasible = 4</i> <i>Good feasibility = 3</i> <i>Low feasibility = 2</i> <i>Not at all feasible = 1</i>	Cost <i>Low Cost = 4</i> <i>Medium Cost = 3</i> <i>High Cost = 2</i> <i>Very High = 1</i>	Other Resources Needed <i>Minimal = 4</i> <i>Few = 3</i> <i>Several = 2</i> <i>Significant = 1</i>	Capacity <i>Excellent Capacity Exists = 4</i> <i>Good Capacity Exists = 3</i> <i>Fair Capacity Exists = 2</i> <i>Little Capacity Exists = 1</i>	Total

From: "7 Steps to Use Routine Information to Improve HIV/AIDS Program" (USAID/MEASURE Evaluation)

Ask the participants what are the next steps once we identify and prioritize the interventions. Appreciate their responses and explain that the next steps are:

- formulating an Action Plan for the implementation of the interventions,
- implementing the Action Plan and
- monitoring the implementation of the Action Plan, as well as
- monitoring and evaluation of the program performance

7. 4. Using Electronic HMIS (eHMIS¹¹) data for performance review and decision making

Ask participants if they are familiar with e-MHIS or DSS – Decision Support System and its purpose. Appreciate their responses and explain it as follows:

eHMIS: is a computerized system that helps to accurately and timely enter, aggregate , store, analyse and evaluate health related data from health facility to federal level.

Based on the principle that COMPARISON is one the most powerful analytical methods, eHMIS allows the following comparisons:

- **Spatial:** by health facility, woreda, zone, region
- **Time:** trends by month, quarter, year, etc.
- **Indicators:** among various indicators related to same program, e.g. ANC coverage and skilled birth attendance
- **Benchmark:** expected versus achieved

¹¹ eHMIS is an electronic application developed by and implemented in the Southern Nations Nationalities and Peoples' Region in Ethiopia by the USAID-funded MEASURE Evaluation HMIS Scale-up Project since 2010.

Further elaborate the important features of the eHMIS which are as following:

a. Health System Reference Database:

In addition to the complete health facility list, the Health System Reference Database (HSRD) provides population denominators for various catchment areas, health facility information and human resource information. Data for the whole region is entered into the system and is readily available for updating and use. One important utility of HSRD is that it provides the necessary data on various denominators for the calculation of HMIS indicators.

b. Data entry module

The Data Entry into eHMIS can be done in two ways: (1) the manual data entry and (2) scanning which uses intelligent character recognition to populate the HMIS database. The scanning of facility reporting forms is especially set to reduce the time the RHB spends manually entering data by a significant margin. This solution is expected to shift this current clerical task to more advance roles such as analyzing data for decision making and working on improving data quality.

The offline manual data entry empowers the woreda health offices to enter their own data as soon as HMIS reports are received from the health facilities so that the monthly HMIS data is promptly available & accessible to district and zonal managers for review. The entered monthly report data is uploaded into Regional server through internet.

c. Data synchronization

This features allows synchronization of HMIS data either entered at woreda level or at regional health bureau level

d. Date Aggregation Module

The Aggregation Module is an application that dynamically aggregates data entered via the Data Entry Module to provide woreda, zonal and regional aggregation for the month, quarter and year. Thus both aggregated data and data disaggregated up to Health Post level are readily available to the managers and decision makers.

The aggregation software is adding significant time savings and improvement to quality by reducing the time it takes to aggregate reports to a matter of seconds and virtually eliminating calculation errors that might occur if the task was to be done manually.

e. HMIS Report Status Tracker

This feature allows tracking the receipt and processing of HMIS monthly reports. It also lists the names of missing health facilities to enable the HMIS focal person follow-up with those facilities to submit their reports.

f. Performance Reporting

This feature provides a quick snapshot of woreda, zonal and regional level performance with regard to HMIS indicators and comparisons with targets set by the region.

g. Decision Support System (DSS)

The DSS is the dashboard that provides decision makers' access to HMIS data that can be easily analyzed for effective and timely decision making. The DSS employs simple and yet powerful charting tools such as line graph, bar chart and maps to communicate information in a way that makes the thousands and millions of records in the database represented in simple user-friendly charts. In addition to the desktop DSS application, top level management can benefit highly from the Mobile Executive Decision Support System (MEDSS).

The DSS uses the HMIS Indicator definition module which has been in-built into the system as a quick reference to how each indicator is calculated.

Exercise:

Inform the participants that in this session they will work in groups, use the data available in eHMIS for going through the following steps. Inform that they will be using Malaria related data for this exercise. Each group should pick one zone in SNNPR for which they will do the data analysis. However, they can use data of other zones for comparison.

Steps for using eHMIS data:

1. Formulate key program related questions
2. Identify the data needs
3. Extract/Export the data from eHMIS
4. Organize the data as charts and/or tables
5. Interpret the data and draw conclusions
6. If as a result of data analysis more questions arise, identify the data needs to answer those questions and repeat Steps 2-5
7. Identify performance gaps, conduct root-cause analysis and decide/prioritize solution
8. Implement the solutions and continue monitoring the key program performance indicators

Inform the participants that all these above steps should be carried out in real life situation. However, for the purpose of the exercise we will do Step 1-7.

Session 8: Forum for HMIS Information use

8.1. Session Objectives

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

- Explain how woreda based planning serves as a one planning forum
- Describe the purpose and functions of Performance Review Team
- Elaborate how and why to engage stakeholders in Performance Review Team

8.2. Woreda based planning as a forum for one planning and performance monitoring

Initiate the discussion by asking the participant what are the planning activities carried out at woreda, zonal and or regional levels. Appreciate that there is a national planning exercise called Woreda-based Health Sector Planning.

Elaborate that:

In Ethiopia, the MOH has adopted a “One Plan, One Budget and One Report” policy. According to this policy, “One Plan” is the idea that all the major activities happening at various levels of the health system are included in one joint plan.

“One plan” means that all stakeholders (government, donor, NGOs and the community) agree to be part of a broader sector plan¹². This annual woreda-based plan is a sub-set of the country-wide and agreed-upon health sector strategic plan – the Health Sector Development Program (HSDP)¹³. HSDP is the main medium for translating the health component of the National Growth and Transformation Plan (GTP). To ensure one plan principle, the planning exercise is undertaken by a top-down and bottom-up approach and horizontal alignment¹².

Based on the broader objective, priorities and the targets of the five-yearly HSDP an indicative annual plan is formulated at the Federal level. The indicative plan is important to give direction and align the plans at all levels with the health sector priorities. The Federal level indicative plan is shared with the Regions who accordingly prepare their own Regional Indicative Plan. Based on this Regional indicative plan the zonal indicative plan is prepared and sent to the woredas. The Woreda Health Offices prepare Woreda Plans using evidence-

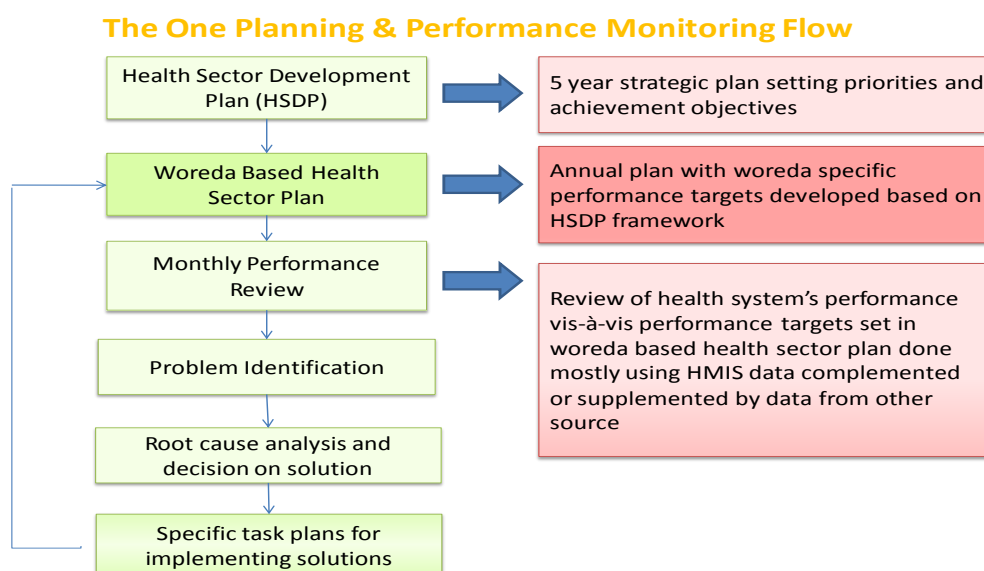
¹² Federal Democratic Republic of Ethiopia, Ministry of Health: Woreda-Based Health Sector Planning (WB-HSP); Training Material version 2

¹³ “The health sector will have one country-wide shared and agreed strategic plan (HSDP) developed through extensive consultation. All other regional, zonal, woreda and facility plans are local sub-sets of this strategic plan and should be consistent with the latter.” Federal Democratic Republic of Ethiopia, Ministry of Health: The HSDP Harmonization Manual (HHM) First Edition 2007EC

based planning approach and Balanced Scorecard planning framework¹⁴. These HSDP Woreda Plans are aggregated to the regional and national levels. Hence issues at grass root level are reflected at the national level.

The Woreda-based Health Sector Planning is an evidence-based result-oriented planning exercise. Most of the indicators used for the planning and monitoring the implementation of the plan come from HMIS.

Show the slide on “One Planning and Performance Monitoring Flow, and explain that the Woreda-based Health Sector Plan and the performance objectives set within that plan will become the basis of the monthly, semi-annual and annual performance review meetings.



Reiterate that during Woreda-based Planning, performance targets are set for all the key performance areas identified in HSDP.

Ask the participants to tell the major performance areas included in woreda-based planning. Appreciate their responses and show the list:

¹⁴ Federal Democratic Republic of Ethiopia, Ministry of Health: Health Sector Development Program (HSDP)-IV – Woreda Based Annual Core Plan EFY 2003 (2010/11)

Annual Woreda Based Plan Indicators

Program Area	Indicator
C1. Improve Access to Health Services	
C1.1 Maternal, newborn, Child and Adolescent Health service	
Family Planning	Contraceptive Acceptance Rate (CAR)
Pregnancy & Delivery Care	ANC 1+
	Deliveries attended by HEWs
	Deliveries attended by skilled birth attendants
	PNC
	Abortion care
	PMTCT counseled & treated
	PMTCT (prophylaxis + treatment)
Immunization of Infants	Penta 3 coverage
	PCV-3
	Measles Immunization
	Children <1 Fully Immunized
	PAB from NNT
HCs eligible services	BEmONC at HCs
	YFS at HCs
	IMNCI at HC
	ICCM at HPs
C1.2 Nutrition	Vit-A for 6-59 months children
	Deworming for 2-5 yrs children
C1.3 Hygiene & Environmental Health	HHs with Latrine
	Kebeles declared "Open Defecation Free"
C1.4 Prevention and Control of Diseases	

C1.4.1 Major Communicable Diseases	
HIV/AIDS	Condoms distributed
	STI cases managed
	HIV Testing & Counseling
	Currently in Pre-ART Care
	PLHIV currently on ART
	Children <15 with HIV receiving ART
TB and Leprosy	TB detection rate (all forms)
	TB treatment success rate
	TB cure rate
	DOTs at HPs
	Leprosy case detection rate
Malaria	LLINs distributed
	HHs covered with IRS
C2 Community Ownership	Model HHs graduated
P1 Quality of health services	OPD per capita
P2 Public Health emergency Management	Epidemics reported within 24 hours
P3 Pharmaceutical Supply & Services	Essential Drug Availability
P4 Regulatory System	Food & drinking establishments inspected
P5 Evidence Based Decision Making – Harmonization & Alignment	Report timeliness
CB1 Health infrastructure	HCs newly constructed
CB2 Human capital & Leadership	HEWs received IRT

Inform the participants that once the Woreda-based Plan is approved, the Health Facilities, WorHOs, ZHDs and RHB are responsible for implementing the plan and to monitor the performance.

Inform that the forum for monitoring the health unit's performance, identifying performance gaps and their root causes and deciding on solutions is the Performance Review Team.

8.3. Performance Review Team – for monitoring performance

Inform the participants that there will be a role play. Invite four volunteers from the participants.

Explain the role-play setting to the remaining participants and inform them that they should carefully observe the play; at the end of the play they will be asked to express their views on:

- How did the meeting go? What problem was discussed in the meeting? How the problem was identified? What could be a more systematic way of identifying health problems in the community?
- What were the good things and lacking in how the meeting was conducted (participation, procedure of the meeting, the way decisions were taken)?
- Was the decision appropriate, on what basis was that decision taken?
- Who else should have participated in the meeting?
- What needs to be improved?

Among the four volunteers, one will be the Head of the WorHO and the other three are the P/M&E Officer, HPDP Coordinator and PHEM Coordinator.

Role Play

The Setting:

The Head of the WorHO has come to know from one of his friends that people are talking about many children suffering from rashes and fever; even in one village a child died after having rashes and severe cough.

The Play:

Scene 1:

The Head of the WorHO calls his P/M&E Officer to organize a management committee meeting. He tells the P/M&E Officer that due to his already set appointment with ZHD Head he will not be able to attend the meeting and so he delegates it to P/M&E Officer to conduct the meeting and departs for the ZHD.

Scene 2:

The P/M&E Officer, HPDP Coordinator, HIV Coordinator and PHEM Coordinator turn out for the meeting. They discuss the news received by the WorHO Head. They agree on the need for making people more aware of giving measles vaccination to their children. The four of them decide that there should be awareness campaign at every Health Post in the woreda.

The meeting ends by HSDP Coordinator being given the responsibility to communicate to all the Health Posts for strengthening their awareness-creating activities in the community.

Ask the participants to share their observation, focusing particularly of the questions explained before the role-play.

Ask participants, what in their view the role of a Performance Review Team is. Appreciate their responses and explain that a Performance Review Team:

Meets every month to ensure result based monitoring and evidence based decision making for improving the health sector's performance by focusing on implementation of Woreda Based Health Sector Plan, national or local health priorities (e.g. Health Development Army) and health problems identified through regular review of HMIS data.

Ask participants, in their opinion, who should be the members of Performance Review Team at their respective Administrative Health Unit, viz. Zonal Health Department, Woreda Health Office, and Health Facility.

List the responses on a flip chart.

Inform the participants that we will do an exercise on who are the stakeholders for the respective administrative health unit and, therefore, should be considered for Performance Review Team membership.

Exercise

Divide the participants into four groups. (If the participants belong to different administrative health units, group them according to their respective level; e.g. participants from ZHD in one group, from WorHO is another group and from Health facilities in a different group.)

Distribute the Stakeholder Matrix and ask the participants to list all those organizations, groups or individuals who have a particular interest in monitoring the performance of the health services or programs implemented by their respective health unit.

Allow 20 minutes for the group work. Ask each group to present their work. Compare the names of the stakeholders listed in the Matrix with the names initially listed on the flip chart.

Table - Stakeholder Analysis Matrix¹⁵

Program Issue: Health Services/Program Monitoring and Performance Improvement						
Proposed Activity: Convene stakeholders to review health services/program performance on the basis of available data and to develop an action plan for performance improvement						
Date:						
Name of Stakeholder	Stakeholder Description	Potential Role in the Issue or Activity	Level of Knowledge of the Issue	Level of Commitment	Available Resources	Constraints
<i>Organization, Group, or Individual</i>	<i>Primary purpose, affiliation, funding</i>	<i>Vested interest in the activity</i>	<i>Specific areas of expertise</i>	<i>Support or oppose the activity, to what extent, and why</i>	<i>Staff, volunteers, money, technology, information, influence</i>	<i>Need funds to participate, lack of personnel, political or other barriers</i>

Appreciate the work and reiterate that through using this systematic approach for identifying the stakeholders, we get clarity on who should be the member of the Performance Review team, and at the same time we have clarity about the rational for inviting them for Performance Review Team meetings.

Inform the participants that once the stakeholders are identified, it is also important to understand how to engage those stakeholders.

Distribute the Stakeholder Engagement Plan matrix¹⁵ and ask the participants to work in their groups to develop the engagement plan.

¹⁵ USAID / MEASURE Evaluation: 7 Steps to Use Routine Information - A Guide for HIV/AIDS Program Managers and Providers

Program Issue: Health Services/Program Monitoring and Performance Improvement			
Proposed Activity: Convene stakeholders to review health services/program performance on the basis of available data and to develop an action plan for performance improvement			
Date:			
Stakeholder Organization, Group, or Individual	Potential Role in the Activity	Engagement Strategy <i>How will you engage this stakeholder in the activity?</i>	Follow-Up Strategy <i>Plans for feedback or continued involvement</i>

Allow 20 minutes for the groups to complete their work. Invite each group to present their Stakeholder Engagement Strategy. Appreciate that different stakeholders will need different strategies for their engagement.

Show the participants the slide on the Performance Review Team membership. Inform them that this is a prescribed standard membership structure for the Performance Review Teams; however, based on the stakeholder analysis and engagement plan, the Woreda Administration, kebele council, HEWs, heads of the health offices from higher or lower tiers and the community itself are some of the important stakeholder who should be engaged at some point of time, if not every month, in the performance review exercise to obtain a wider involvement of various organizations, groups or individuals in improving the reach and /or quality of health services in the community.

Who Participates in Performance Review Team (PRT) Meetings	
RHBs, ZHO, WorHOs - administrative level	Health Facility level
Heads of Administrative units	Hospital Managing Director, HC/PHCU
All management members	All case team coordinators
M & E process owners	HMIS focal person
	Health Extension Workers (HEW) - need base

Ask participants what are the good practices for successfully managing the Performance Review Meetings. Appreciate response and explain as follows:

Performance Review Meeting Best Practices

- Setting an agenda – selecting priority program/management area
- Communicating the agenda, time and place of meeting to the stakeholders in time
- Ensuring that the meeting is chaired by the designated chairperson
- Proceeding the meeting according to the set agenda
- Reviewing/following-up the decisions of the previous meeting(s)
- Reviewing performance using Performance Improvement framework which includes
 - Identifying performance gaps based on HMIS
 - Identifying root causes
 - Deciding solutions and developing action plans with specified actions, timelines and responsibilities
 - Allocating/mobilizing resources
- Recording the meeting proceedings and timely communicating to all stakeholders

Invite questions for further clarification, if any. Thanks the participants for their active participation and conclude the session.

Session 9: Sustaining a Culture of Information Use

9.1. Session Objectives

By the end of this session, participants will be able to

- Define culture of information use.
- Describe the factors affecting culture of information use
- Develop action for sustaining the culture of information use.

9.2. Debate: Sustaining a culture of information use

Preparing for the debate: informing the participants a day before the debate session

One day before this debate session takes place, inform the participants that in this session they will be debating on the following topic:

“Sustaining the culture of information use is the responsibility of the Regional Health Bureau – if the RHB managers use HMIS for monitoring and decision making, others at zonal, woreda and health facility levels will follow their practice.”

Invite six to eight participants to volunteer to take part in the debate. Divide them into two groups and randomly assign the groups to debate in favor or against the motion.

Overnight, each group will prepare their arguments in favor or against the topic. Within each group, they will select one group leader. The team leader from each group will be the last one to speak from the respective group. Encourage the speakers to have concrete arguments with evidence and to maintain harmony within the group when presenting their arguments.

Conducting the debate

At the beginning of the debate invite one participant to be the moderator. Ask the audience to vote in favor or against the motion. They can do so by writing on a piece of paper from their note books and submit it to the moderator. The moderator will compile the result and keep it with him (the results will be disclosed at the end of the debate).

The first speaker in favor of the motion is invited to place his arguments followed by the first speaker from the group against the motion. The first speaker from the group against the motion will not only argue against the topic but also place an alternative proposal.

The second and subsequent speakers from each group will come alternately and put forward their arguments in favor of their views while countering the views of the opposing group. Each speaker may support his team mates but should also bring new arguments in front of the audience and avoid repeating any of the arguments presented earlier by his team mate.

The team leaders will summarize their stand points.

During the whole process, each speaker will be allowed 5 minutes. The moderator will alert the speaker e.g. by ringing a bell or putting up a placard. At the end of allotted 5 minutes time, the speaker must stop or else the moderator can deduct the time allocation from the next speaker of his/her group.

At the end of the debate, the participants in the audience are asked to vote again. Their votes are counted and the moderator displays the before and after results.

Applaud the speakers and the participants. Reiterate that:

Culture is a way of life of a group of people, how they behave, their values and beliefs that is passed from generation to generation through social learning. Similarly, within an organization, there is organizational culture – how staff within that organization or institution behave, what they value and practices that are acquired by the staff as the organization's norm or discipline.

Emphasize that we can say that there is culture of information use¹⁶ within the organization when:

- People within the organization value the information and information quality as a critical component of decision-making, and
- Using information provided by HMIS and other data sources to make decisions for strategic and operational management with the overall goal to improve health is the “norm” that is practiced not by a few key individuals in the organization, but rather practiced by individuals, either collectively or individually, throughout every tier of the organization

9.3. Factor influencing culture of information

Invite the participants to brainstorm on various constraints and enabling factors that influence a long-lasting behavior change within an organization for demanding quality information and using HMIS and other data for making evidence-based decisions.

Encourage them to think in terms of technical, organizational and behavior factors promoting, sustaining or affecting the culture of information use.

List the factors on flip charts. Discuss what could be done to strengthen the enabling factors that are already there and to overcome some of the barriers.

Inform that when the participants go back to their respective administrative health unit, they should organize similar discussion meeting with the staff in that unit, identify the enablers and constraints and develop plan for addressing those issues.

¹⁶ Developing a culture of information as a key determinant of sustainable quality information availability and use - RHINO Online Forum: Moderated by Dr. Stephanie Posner - April 1-8, 2002 (http://rhinonet.org/index.php?option=com_content&view=article&id=134:rhino-forum-quality-information-culture&catid=45:rhino-forum-summary&Itemid=133)

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