

Module 9 PMTCT Programme Monitoring

SECTION 1 Introduction to the Programme Cycle

SECTION 2 Global, National, and Health Facility PMTCT Indicators

SECTION 3 PMTCT Programme Monitoring at the Health Facility Level

After completing this module, the participant will be able to:

- Describe the PMTCT programme cycle.
- Discuss the purposes of global and national PMTCT indicators.
- Understand and demonstrate how to complete the PMTCT registers and summary forms
- Describe the role of the healthcare worker in monitoring a PMTCT programme

Note: This module is designed to provide introductory information on monitoring PMTCT programmes. Some healthcare workers may benefit from additional training in PMTCT programme monitoring and evaluation.

SECTION 1 Introduction to the Programme Cycle

Introduction

Planning and implementation of a PMTCT programme is part of a larger programme cycle in which healthcare workers play an important role. A successful PMTCT programme requires implementing each step of the programme cycle. The main components of the programme cycle are planning, implementation and evaluation (PIE). Adequate plans based on findings from a needs assessment that identifies health needs and programmes of the target population have to be developed. The plans spell out the programme goal and objectives and a work plan and budget. The implementation includes developing a work schedule and developing monitoring and supervisory schedules. Evaluation assesses the extent to which programme objectives are achieved and the impact of the programme reducing morbidity and mortality from that health problem among others.

Questions answered in a planning cycle

<u>Question</u>	<u>Purpose</u>
Where are we now?	Situation analysis
Where do we want to go to?	Goal and Objectives
How do we get there?	Implementation
How do we know we are getting there?	Monitoring
How do we know that we have reached our destination?	Evaluation

Program monitoring is an ongoing process during the programme cycle. It is very important as it helps determine the extent of attainment of programme targets and level of adherence to standards. Gaps between planned targets and achievements are identified and remedial actions instituted continually without waiting to the end of the project. Indicators, which track programme performance, are usually identified and used for monitoring.

What is an indicator?

Indicators are summary measures to describe a situation. Indicators provide information on the status of activities related to each step of the programme cycle. Appendix 9–A provides examples of PMTCT performance indicators.

This module is designed to provide introductory information and skills for monitoring PMTCT programmes. Some healthcare workers may benefit from additional training on PMTCT programme monitoring and evaluation.

Programme cycle

The *programme cycle* is the process of assessing a situation and then designing, implementing, monitoring, and evaluating a public health programme in response.

Note the parallels between the programme cycle and clinical case management. The five-step process in a nationwide PMTCT programme cycle is similar to the five-step process a healthcare worker follows when caring for a patient. The healthcare worker:

- Assesses the patient's health by taking a medical history, performing a physical exam, and making the diagnosis
- Designs a patient treatment plan
- Implements the treatment plan
- Monitors the patient's progress
- Evaluates the success of the treatment plan using lab tests, re-examination, and patient self-report

Assessing

The first step of the programme cycle is to analyse the problem by conducting a needs assessment. In this case, the needs assessment would indicate:

What the problem is:

- The magnitude and distribution of the problem
- The underlying factors responsible for the problem
- What is being done currently to deal with the problem, who are the people doing it and gaps in what they are doing
- Resources available at all levels, including community to deal with the problem.

In relation to PMTCT assessment will seek to obtain information on:

- The rate of HIV infection in women and rate of mother to child transmission of HIV
- The characteristics of the women and children worse affected from HIV and where the problem is more common (urban/rural etc)
- Factors that promote transmission of HIV to women and from mothers to their babies
- What PMTCT interventions are currently in place and who are providing the interventions
- The gaps in the current PMTCT interventions
- National, local and community resources that can be mobilized for PMTCT

Planning

The next step is to plan the specific PMTCT treatment, care, and support programme that will respond to the needs identified in the assessment. Planning will involve making decisions such as which healthcare facilities will offer PMTCT services in the first phase of the programme; how to expand and scale-up the programme; how many and which staff should be trained; what types of equipment, supplies, and physical space are needed. Planning also requires developing programme guidelines (e.g., specific operational protocols - SOP), a work plan, a budget and a programme management plan.

PMTCT programme goals and targets are also developed during the planning step. For example, the programme might aim to provide pre-test information to 100% of new ANC patients and to provide HIV testing to 95% of new patients. While these goals might not be achievable immediately, setting targets to improve coverage rates within a specific time frame can help the staff reach programme goals.

Implementing

The third step is the implementation of PMTCT services according to the decisions made in the planning phase. Implementation involves developing work schedules, training staff, establishing standard procedures for healthcare workers, and integrating the programme into ongoing MCH services. Often, there is a pilot phase when a new programme is introduced at

a healthcare facility. During the pilot phase, initial problems can be identified and solved before the programme is fully implemented.

Monitoring

The next step in the programme cycle, monitoring the PMTCT programme, involves asking questions about the services and the implementation process in order to assess whether needs are being met and standards are adhered to. Questions about the performance of the programme might include:

- How many patients is the programme reaching?
- What percentage of ANC patients receives HIV testing?
- What percentage of mothers, who are HIV-infected and delivered at a PMTCT site, are receiving ARVs for PMTCT?

Evaluating

The final step is evaluating the PMTCT programme by asking questions about the impact of the programme. Such questions could include:

- What are the barriers to full uptake of the programme?
- How many infants did the programme prevent from getting HIV infection?
- How might the programme be improved in order to reach its targets and goals more quickly?

Comparing outcomes to previously outlined goals is important for measuring the programme's success.

Steps of the programme cycle occur as part of an ongoing process. Evaluation findings should lead to new planning and implementation. This approach provides a broad perspective on effective monitoring and evaluation, and improves the feasibility of plans and sustainability of projects.

SECTION 2 Global, National, and Health Facility PMTCT Indicators

Indicators for PMTCT programmes

Global indicators

Global indicators generally are limited to the final step of the programme cycle and a few key outcomes. They are based on national indicators. Global indicators:

- Reflect, in a few summary numbers, the current worldwide situation regarding PMTCT efforts
- Provide a picture of how countries, on average, are addressing PMTCT
- Help donors understand how to assess the results of past spending and prioritise future funding

Example of a global PMTCT indicator: Percentage of pregnant women who are HIV-positive and received a complete course of ARV prophylaxis to reduce the risk of MTCT

National indicators

National indicators usually address several steps of the programme cycle. They are estimated from information provided at the local level. National indicators:

- Reflect the goals, objectives, and activities of the national HIV/AIDS programme
- Assess the effectiveness of the national response to PMTCT
- Include the WHO global PMTCT indicators

Example of a national indicator: Percentage of pregnant women in the country making at least one ANC visit who have received an HIV test result and post-test counselling

Healthcare facility indicators

Healthcare facility indicators—information collected at healthcare facilities—are essential for monitoring and evaluation, and to providing quality healthcare services to patients. National and global indicators are reported based on healthcare facility indicators.

Healthcare facility indicators:

- Help set targets and track progress towards reaching all women and infants who need PMTCT services
- Help identify progress, problems, and challenges
- Aid in finding solutions to the problems of increasing coverage and improving quality of care.

Example of a healthcare facility indicator: Percentage of women who received HIV pre-test information during ANC and accepted HIV testing

Exercise 9.1 Understanding indicator requirements: small group discussion	
Purpose	To discuss the information needed to measure and track a specific indicator, and how to collect and compile data. To understand the importance of shared definitions of terminology in data collection.

Exercise 9.1 Understanding indicator requirements: small group discussion	
	To review monitoring forms of the national and health facility levels.
Duration	30 minutes
Instructions	<p>In your group, pretend to be a member of the national PMTCT monitoring team that advises the FMOH on PMTCT monitoring indicators. Focus on the percentage of pregnant women who were HIV–infected and received ARV prophylaxis as recommended in the national guidelines, then address the following questions:</p> <ul style="list-style-type: none"> ▪ What is the definition of the indicator? (What does it measure?) ▪ What information is needed to fully understand this indicator? (such as knowing the PMTCT protocol, drugs used for ARV prophylaxis, etc) ▪ Why is the indicator important? ▪ What healthcare facility information is used to calculate this indicator? <p>One member of the group will record the answers on a flipchart and present them to the larger group.</p>

SECTION 3 PMTCT Programme Monitoring at the Health Facility Level

What is monitoring?

Monitoring is regular tracking of key programme elements.

Monitoring of the PMTCT programme will help to:

- Assess programme performance
- Detect and correct performance problems
- Make more efficient use of PMTCT programme resources

Because monitoring data provide much of the information needed to track programme performance and make programme changes, this session focuses on monitoring data that are routinely collected through record-keeping at the healthcare facility.

What is evaluation?

Evaluation is measuring the changes in a situation resulting from an intervention.

A *formal evaluation* of the PMTCT programme will demonstrate to what extent the programme contributed to changes in the indicators. Formal evaluations should be conducted intermittently to try to examine the ways in which the PMTCT programme is causing these changes.

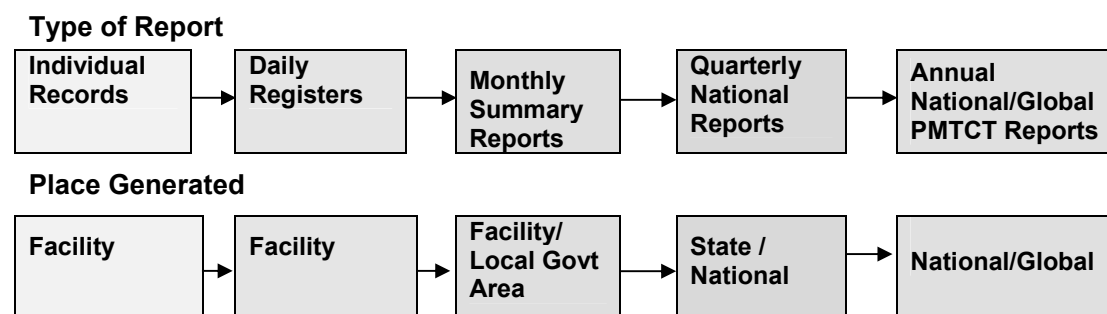
What is a monitoring system?

A monitoring system is a group of components used to track programme activities. PMTCT programme monitoring should include all activities aimed at providing the minimum package of services for preventing mother-to-child transmission including:

- HIV testing and counselling for pregnant women
- ARV treatment and prophylaxis to prevent MTCT
- Counselling and support for safe infant-feeding practices
- Family planning counselling or referral

Typically, data on these activities are recorded at the healthcare facility, compiled at a district level, and forwarded to the national level for aggregation as illustrated in Figure 9.1.

Figure 9.1 Flow of Recordkeeping Data



Characteristics of a PMTCT programme monitoring system

A PMTCT monitoring system includes:

- Clear definitions of indicators
- Standard tools, data source, and methodologies
- Clear guidelines and protocols

Examples of guidelines and protocols might address:

- What data quality assurance procedures should be implemented?
- How often and to whom will reports be sent?
- How will reports be used and disseminated?

Ideally, staff members will record the PMTCT services provided in standard ANC and maternity ward registers as part of routine MCH data collection. Periodic summary reports summarise register information for local programme management and reporting.

See Appendix 9-B for Nigeria's ANC, VCT, partner, mother follow-up, child follow-up and delivery registers and sample ANC and L & D monthly summary forms.

In every healthcare facility where PMTCT services are delivered, it is important to designate staff and outline their responsibilities in the monitoring process. Clear roles and responsibilities should be defined for staff involved in:

- Data collection
- Data collation
- Analyses
- Reporting
- Dissemination
- Data use

Using monitoring information for intervention-related decision-making

Monitoring information should be reviewed periodically to assess programme performance and improve programme procedures. Monitoring information is used for decision-making about the PMTCT programme at local, national, and global levels.

Consider an example of decision-making based on a healthcare facility-level indicator:

Percentage of women who deliver at a PMTCT site who know their HIV status

If decision-makers at the healthcare facility offering PMTCT services see that a low percentage of women know their HIV status, they should first try to understand the causes before making recommendations to remedy the situation. They might further investigate:

- Of the women who do not know their HIV status at delivery, what percentage attended ANC?
- Is the ANC clinic reaching its HIV testing targets?
- Is HIV testing and counselling during labour being offered to women according to protocol?

Depending on the answers to these or similar questions, possible interventions or recommendations might include:

- Improving outreach to pregnant women to increase ANC attendance
- Modifying ANC procedures to increase testing and counselling coverage

- Increasing maternity ward staffing resources in an effort to increase HIV testing rates during labour

Exercise 9.2: Using indicators: small group discussion	
Purpose	To interpret monitoring data from a PMTCT service and consider recommendations to improve performance.
Duration	15 minutes
Introduction	<p>For this exercise, you are upper-level administrators and clinicians working in a busy PMTCT on the outskirts of the national capital. The clinic executive director calls you into a meeting to help him interpret the annual PMTCT monitoring data. He starts the meeting by writing the following on a flipchart in the front of the meeting room:</p> <p><i>Number and percentage of pregnant women receiving ARV prophylaxis</i></p> <p>The executive director reports that the FMOH has discovered that nationwide only 25% of pregnant women who are HIV-infected received ARV prophylaxis in 2003. He writes 25% on the flipchart, just to emphasise his point. The executive director continues by saying that your healthcare facility is among those administering ARV prophylaxis to the lowest percentage—with only 18% of pregnant women who are HIV-infected receiving ARV prophylaxis; he writes 18% on the flipchart. He explains to the group that he called the meeting to find out from "my best and brightest clinicians and administrators from the PMTCT Clinic" why the numbers are so low. He waits for a response.</p> <p>With the others in your small group, discuss the following topics:</p> <ul style="list-style-type: none"> ▪ What is your interpretation of the monitoring data, i.e., why do you think so few women receive ARV prophylaxis? ▪ Identify any additional information needed to better understand the data. ▪ Choose the most plausible interpretation that your group produced. Determine a set of recommendations your staff can follow to address the gap between guidelines and practice. ▪ Ask one member of each group to record the answers on a piece of flipchart paper for presentation to the larger group.

How can healthcare workers ensure data collected is useful?

Ensuring optimal use of data for decision-making and effective management of the PMTCT programme requires accurate and timely data. The accuracy of the information is also critical to providing quality healthcare services.

The information from a monitoring system is only as useful as the quality of the information collected in clinic registers or on patient forms.

Healthcare workers who are responsible for recording PMTCT services and patient health information are strongly advised to adhere to the following procedures:

- *Understand the data to be collected.* Before you record information, make sure that you understand the data requested.

- *Record the data every time.* Record on the appropriate form each time you perform a procedure, see an HIV-positive patient, prescribe an ARV drug, receive a test result, provide a referral, or engage in any other PMTCT activity.
- *Record all the data.* Make sure you have provided all the information requested on the monitoring form. Doing so might even require noting when you did *not* provide a service.
- *Record the data in the same way every time.* Use the same definitions, the same rules, and the same tests for reporting the same piece of information over time. Sometimes, however, doing so will not be possible, particularly when tests and definitions change as a result of new treatments and technologies. When it is not possible to record the data in the same way, make a note that describes the change.

Healthcare workers are responsible for knowing who is accountable for the monitoring activities, recording data reliably and accurately, and knowing how and when to report information and indicators.

Healthcare workers can contribute to making the overall monitoring process as accurate and reliable as possible by providing feedback about:

- How the system is working
- Useful methods for sharing information
- Whether the monitoring tools are easy to complete accurately and reliably

Feedback

It is important that feedback is provided to healthcare workers on the data generated. The feedback could be in the form of:

- Bulletins
- Newsletters
- Reports

It is important to provide the healthcare worker with feedback about the impact of the data in improving programme performance. This understanding both motivates the healthcare worker and fosters appreciation of the value of the data in process improvement.

Exercise 9.3 Completing local PMTCT forms	
Purpose	To understand the use of local PMTCT forms.
Duration	15 minutes
Activities	<ul style="list-style-type: none"> ▪ As the facilitator reviews the PMTCT forms that will be used in your area, participate in the discussion about the information needed to complete these forms and ways to obtain these data. ▪ Practise completing them.

Module 9: Key Points

- Program cycle steps include:
 - Assessing
 - Planning
 - Implementation
 - Monitoring
 - Evaluation
- Global, national, and facility level indicators measure progress toward programme goals
- Monitoring is the routine tracking of programme information
- Accurate facility registers and records provide essential information for monitoring PMTCT programmes
- Timely reporting is critical for monitoring and evaluation

Appendix 9-A National PMTCT indicators

Indicators for the National PMTCT program include the following:

Geographic Coverage Indicators

1. Number of states reporting PMTCT service
2. Number of facilities reporting PMTCT services

PMTCT Service Indicators

1. Proportion of antenatal clients receiving any pre-test counselling
2. Proportion of antenatal clients who receive individual pre-test counselling
3. Proportion of antenatal clients who accept an HIV test
4. HIV prevalence among women tested for HIV at the antenatal clinic
5. Proportion of women who received an HIV test who return for post-test counselling
6. Proportion of HIV-positive women who are counselled on infant feeding choices
7. Proportion of HIV-positive women who agree to partner notification
8. Proportion of pre-test counselled partners who accept an HIV test
9. Proportion of partners who received an HIV test who return for post-test counselling
10. Proportion of women delivering at reporting facilities who are HIV-positive
11. Proportion of HIV-positive women appearing for delivery who have received appropriate ARV (i.e. triple therapy, ZDV, other) during their antenatal period
12. Proportion of HIV-positive women appearing for delivery who receive appropriate ARV prophylaxis (Nevirapine; ZDV; other) at delivery
13. Proportion of HIV-positive women delivering that adopt exclusive breast feeding at the time of delivery
14. Proportion of HIV-positive women delivering that adopt exclusive replacement feeding at the time of delivery
15. Number of HIV-exposed children delivered alive
16. Proportion of HIV-exposed children alive for discharge
17. Proportion of HIV-exposed children given nevirapine at birth



Partner Register

Hospital Name: _____	Centre No: _____	Month: _____ Year: 20____
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Enter for the partners of women who test positive for HIV

S/N	Date dd/mm/yy	ANC Reference No.	Hospital Reg. No.	Partner age	Pre-test counselled		Partner accepts HIV test		HIV test result			Post-test counselled		FP ARV	Other specify	Referred To
					yes	no	yes	no	Pos	Neg	Ind.	yes	no			
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Delivery Register

Hospital Name _____	Centre No: _____	Month: _____ Year: 20____
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Enter only for all HIV Positive women

Date of delivery dd/mm/yy	Hospital Reg. No.	ANC No.	Time of HIV diagnosis Past ANC Labour	ARV Therapy			From-Delivery interval <4hr ≥4hr	Mode of Delivery			G A wks	Episio- tomy yes no	Vaginal Tear yes no	Feeding Choice E EB BF MS Other	Maternal outcome alive dead	Child given NVP yes no	Child status SB NND Alive
				In ANC TRI. ZDV other	In Labour NVP ZDV other	Vag. El. Em. other C/S C/S											



Voluntary Counseling and Testing (VCT) Summary Form

Hospital Name: _____ Centre No.: _____
Type of Facility: _____ Month of Report: _____
City/Town: _____ Year of Report: _____ State: _____

Enter Summary data from General ANC, VCT and Partner registers

	Variables	Number
1.	New ANC clients	
2.	Group pre-test counselled	
3.	Individual pretest counselled	
4.	Accepted HIV test	
5.A.	HIV test result----positive	
5.B.	HIV test result---negative	
5.C.	HIV test result---indeterminate	
6.a.	Post-test counselled----positive	
6.b.	Post-test counselled----negative	
7.	Counselled on Infant Feeding	
8.a.	ARV therapy received----- current NVP	
8.b.	ARV therapy received ---- current ZDV	
8.c.	ARV therapy received ---- others	
9.	Agreed to partner notification	
10.	Partners pretest counselled	
11.	Partners accepted HIV test	
12.a.	Partners HIV test result----positive	
12.b.	Partners HIV test result---negative	
12.c.	Partners HIV test result---indeterminate	
13.	Partners post-test counselled	

Completed by: _____ Date Completed: _____

Verified by: _____ Date Verified: _____



Delivery Summary Form

Facility Name: _____ Month of Report: _____ Centre No: _____
 Type of facility _____ Year of Report: _____ State: _____
 City/Town _____

Enter data from both Facility and PMTCT Delivery register

Variables	Number
Total Deliveries during reporting period	
Number HIV positive women during reporting period	
Time of HIV diagnosis	
Past	
ANC	
At Labour/ delivery	
Given ARV therapy in ANC	
Triple therapy	
ZDV	
Others	
Given ARV therapy in Labour	
NVP	
ZDV	
Others	
Intending to exclusively breastfeed	
Intending to give exclusive breast milk substitute	
Other feeding choices	
HIV-exposed child (sum of still birth +NND +alive)	
Child given NVP	

Completed by: _____ **Date Completed:** _____

Verified by: _____ **Date Verified:** _____