NATIONAL OPEN UNIVERSITY OF NIGERIA

FACULTY OF HEALTH SCIENCES

COURSE CODE: NSC504

COURSE TITLE: MONITORING AND EVALUATION OF HEALTH PROGRAMME AND SERVICES

COURSE

GUIDE

NSC504 - MONITORING AND EVALUATION OF HEALTH PROGRAMME AND SERVICES

Course Team   Dr E. M. Joseph-Shehu (CourseDeveloper/Writer**)** - NOUN

Dr E. M. Joseph - Shehu (Course Coordinator) –NOUN

Dr OluwayemisOlagunju (Course Editor) – OAU, Ile-Ife

NATIONAL OPEN UNIVERSITY OF NIGERIA

COURSE GUIDE

COURSE CODE: NSC 504

COURSE TITLE: Monitoring and Evaluation of Health Programme and Services

COURSE UNITS: 3 Credit Units

YEAR: 5

SEMESTER: Second Semester

PRE-REQUISITE COURSES: All courses in the BNSC degree programme in the year 100 to 500 first semester

CON-CURRENT COURSES: NSC 502, NSC 506, NSC 508, NSC 512

SESSION: 2019/2020 **COURSE WEBSITE:** www.noun.edu.ng

COURSE WRITERS

Dr. Elizabeth M. Joseph-Shehu, Faculty of Health Sciences, NOUN, Abuja

COURSE EDITORS:

COURSE COORDINATOR: Dr. E.M. Joseph-Shehu

Table of Contents

GENERAL INTRODUCTION

Hello,

It's great to have you register for NSC 504- Monitoring and Evaluation (M&E) of Health Programme and Services. The principles of Monitoring and evaluation are applied to everyone. It can be applied by an individual to run a home and in any work settings. Monitoring and Evaluation is an integral part of programming for quality service delivery as professional practice demands that nurses use evidence through appropriate data collection method, analysis, and use of such data to inform decision making relating to health care service delivery and programme at all levels of care. Your knowledge on Health Statistics, Introduction to Health Economics, and Research Methods in Nursing in your 400 level will help you understand the course better.

Monitoring and Evaluation (M&E) of Health Programme and Services is a three (3) credits unit course for the students in the Bachelor of Nursing Science degree programme. The course is made up of two (2) modules with eight(8) study units. It is important that you register for the course at the beginning of the Semester. This course will build your capacity to be able to apply the knowledge of data collection and transformation to inform decision making in the process of monitoring and tracking of services and programme that are provided by nurses. The concept of monitoring and evaluation are explored, use of appropriate tool for assessment and the process of developing a monitoring and evaluation plan is also covered. Learners are expected to learn through case studies and practical experiences of monitoring of services and programme provided by nurses. This Course Guide will give you essential information about the course to help you plan to do well in the course. It is important that you read, master and utilize the information in the course guide.

COURSE OVERVIEW

Monitoring and evaluation of health services is an important course in nursing because as nurses you need to assess each of your activities, programme or services. For health intervention programme to be successful, health professionals have to apply the principles of M&E. monitoring and evaluation empowers the recipient of health services and health workers to make informed decision on interventions, and performance; and promote collaboration, transparency, accountability, and sustainability. When you read or hear that the prevalence of low birth weight in a country is 20% or the percentage of married women of reproductive age in a rural area using a modern contraceptive method rose from 52% to 73%, these types of statistics and other similar information result from "monitoring and evaluation" or "M&E" efforts. The course is a practical and training course, it will require you to do more of practical sections.

COURSE AIM

The aim of this course is to update your knowledge and skills in basics programme monitoring and evaluation in the context of population, health, nutrition and some existing control programme.

COURSE OBJECTIVES

At the completion of this course, learners should be able to:

- describe common terms
- discussthe importance of M&E inprogramme management.
- identify the scope of M&E;
- differentiate between monitoring functions and evaluation functions;
- describe the functions of an M&E plan;

- identify the main components of an M&E plan;

- identify and differentiate between conceptual frameworks, results frameworks and logic models;

- describe how frameworks are used for M&E planning;

- identify criteria for the selection of indicators;

- describe how indicators are linked to frameworks;

- identify types of data sources; and

- describe how information can be used for decision-making.

DELIVERY MODE

The course will be delivered adopting the blended learning mode, 70% of online interactive sessions and 30% of face-to-face during laboratory sessions. You are expected to register for this course online before you can have access to all the materials and have access to the class sessions online. You will have hard and soft copies of course materials, you will also have online interactive sessions, face-to-face sessions with instructors during practical sessions in the laboratory. The interactive online activities will be available to you on the course link on the Website of NOUN. There are activities and assignments online for every unit every week. It is important that you visit the course sites weekly and do all assignments to meet deadlines and to contribute to the discussion forum. You will be expected to read every module along with all assignedreadings to prepare you to have meaningful contributions to all sessions and to complete all activities.

COURSE REQUIREMENTS AND EXPECTATIONS

NSC 506: Monitoring and Evaluation of Health Programme and Services (2-1-0)

3 UNITS

Monitoring and Evaluation is an integral part of programming for quality service delivery and professional practice demands that nurses use evidence through appropriate data collection method, analysis and use of such data to inform decision making relating to health care service delivery and programme at all levels of care. This course builds capacity of the learners to be able to apply the knowledge of data collection and transformation to inform decision making in the process of monitoring and tracking of services and programme that are provided by nurses. The concept of monitoring and evaluation are explored, use of appropriate tool for assessment and the process of developing a monitoring and evaluation plan is also covered. Learners are expected to learn through case studies and practical experiences of monitoring of services and programme provided by nurses.

COURSE MODE – BLENDED

70% online class sessions; 30% practical of face-to-face working with preceptors. To participate in online sessions, you will need to register for the course as indicated by the School of Health Science Website.

NUMBER AND PLACES OF MEETING (ONLINE AND FACE-TO-FACE)

The details of these will be provided to you at the time of commencement of this course

DISCUSSION FORUM

There will be an online discussion forum. The topics for discussion will be posted to the Learning Management System and you will need to contribute meaningfully. It is mandatory that you participate in every discussion every week. Your participation links

you, your face, your ideas and views to that of every member of the class and earns you some mark.

COURSE EVALUATION

This will be done through group review, written assessment of learning during clinical posting; teacher-learner joint review of clinical posting. Students' evaluation: The students will be assessed and evaluated based on the following criteria.

In-Course Examination:

In line with the university's regulation, in-course examination will come up in the middle of the semester. This would come in the form of three (3) compulsory Tutor Marked Assignment (TMA's);with Group Assignments/projects contributing to 20%. Case studies will constitute 10% of the total mark for the course

Final Examination: The final written examination will come up at the end of the semester comprising essay and objective questions covering all the contents covered in the course. The final examination will amount to 60% of the total grade for the course.

GRADING CRITERIA

The total of 100% for this course shall be made up as follows:

Continuous Assessment - 30%

End of Course Examination - 70%

GRADING SCALE

A = 70-100

B = 60 - 69

C= 50 - 59

F = < 49

GRADE POLICY

A= 70% and above

B= 60-69

C= 50-59.

EQUIPMENT AND SOFTWARE NEEDED TO ASSESS THE COURSE

Students will be expected to have the following tools:

1. A computer (laptop or desktop or a Tablet)

2. Internet access, preferably broadband rather than dial-up access

3. MS Office software – Word PROCESSOR, PowerPoint, Spreadsheet

4. Browser – Preferably Internet Explorer, Moxilla Firefox, Goggle Chrome

5. Adobe Acrobat Reader 8

REFERENCE MATERIALS

Frankel, N., & Gage, A. (2007). M&E fundamentals: A self-guided minicourse. *United States Agency for International Development (USAID), Washington, DC. http://www. cpc. unc. edu/measure/publications/pdf/ms-07-20. pdf*.

Family Health International (FHI) (2011). Core Module1: Monitoring HIV/AIDS Programme: A Facilitator's Training Guide. USAID Resource for Prevention, Care and Treatment.

International Federation of Red Cross and Red Crescent Societies (2002). Handbook for Monitoring and Evaluation. 1st edition. Switzerland

Mokua, C., &Kimutai, G. (2019). Monitoring and Evaluation Systems and Performance of Public Private Partnership Projects in Nairobi City County, Kenya. *International Journal of Current Aspects*, *3*(VI), 124-148.

School of Geography and Environment (2014). A step by step guide to monitoring and evaluation. Higher Education Innovation Fund at the University of Oxford. Retrieved from:

(http://www.geog.ox.ac.uk/research/technologies/projects/monitoringandevaluation.html)
Accessed: December 2019

Umhlaba Development Services (2017). Introduction to Monitoring and Evaluation Using
the Logical Framework Approach. Retrieved from:
http://eeas.europa.eu/archives/delegations/ethiopia/documents/eu_ethiopia/ressources/m_
e_manual_en.pdf. Accessed: January 02, 2020

MODULE 1   OVERVIEW OF MONITORING AND EVALUATION OF HEALTH PROGRAMME AND SERVICES

Monitoring and evaluation (M&E) are essential management tools to assess health programme and services. It helps to ensure that health activities are implemented as planned and to assess whether desired results are being achieved. Monitoring progress and evaluating outcomes of health care services are important to improve the performance of those responsible for implementing the services. The process of M&E show whether a service or programme is accomplishing its goals. It identifies programme weakness and strength, if there are areas that need revision, and aspect of the service or programme that meet or exceed expectations.Monitoring and evaluation can sometimes seem like an unaffordable luxury, an administrative burden, or an unwelcome instrument of external oversight. But if used well, M&E can become a powerful tool for social and political change.

OBJECTIVES
At the end of this unit,learners should be able to:

- Describe the concept of Monitoringand Evaluation of health programme and services

- Identify situations that calls for Monitoring and Evaluation

UNIT 1   MONITORING OF HEALTH PROGRAMME AND SERVICES

CONTENTS

1.0   INTRODUCTION

Monitoring is a continuing function that uses the systematic collection of data on specified indicators to inform management and the main stakeholders of the extent of progress andachievement of results in the use of allocated funds. Monitoringof a programme or an intervention involves the collection of routine data that measure progress toward achieving programme objectives. It involves counting what is being done, and routinely looking at the quality of the services. It is used to track changes in programme performance over time. The purpose of monitoring is to permit stakeholders to make informed decisions regarding the effectiveness of programme and the efficient use of resources. It is an ongoing, continuous process; that requires the collection of data

at multiple points throughout the programme cycle, including at the beginning to provide a baseline; and can be used to determine if activities need adjustment during the intervention   to improve desired outcomes.

2.0   OBJECTIVES

At the end of this unit, learner should be able to:

- describe   monitoring of health programme and services
- identify the purpose of monitoring
- describe monitoring process
- discuss the levels of monitoring
- discuss information requires in a   monitoring system

3.0   MAIN CONTENTS

3.1.1   Monitoring

Monitoring and Planning   goes together, one of the reasons for monitoring a project/programme/intervention/service is to ensure that programmeare implemented as planned. The plan should specify what needs to be done, who is going to do it, and when it is to be done. Inadequacy in planning will result in inadequacy in monitoring. Monitoring is sometimes referred to as process evaluationi.e the ongoing assessment of the programmeprogress. This is because it focuses on the step by step implementation of the process and asks key questions:

- To what extent are planned activities actually realized?
- What programme are provided, to whom, when, how often, for how long, and in what context?

- How well has the programme been implemented?
- How much does implementation vary from site to site?
- What is the quality of the programme provided?
- Did the programme benefit the intended people? At what cost?
- Is the programme making progress toward achieving our objectives?
- Is the programme consistent with each design or implementation plan?
- Is the programme directed toward the specified   target group?

3.1.2   Purpose of Monitoring

i.   It helps in setting norms of performance
ii.   It helps in measuring the level of performance
iii. It helps in comparing performance level with standards or norms
iv.   It helps in identifying deviations and explain the reasons for the deviation for taking necessary correctiveaction

3.1.3   Monitoring Process

Monitoring process is a continuous cycle that involves constant feedback. There are four steps in monitoring process:

i.   **Collecting and Analyzing Data:** the first step in the monitoring process is measuring, recording, collecting data with emphasis on specific indicators, and analyzing data on actual implementation of the programme

ii.   **Detecting Deviations from Plans:** following data analysis, any deviations from the plan is identified and communicated to the programme managers

iii. **Diagnosing Causes for Deviations:** the programme manager detects the causes of the deviation after analysis

iv. **Taking Corrective Action:** corrective actions are plan taking to get rid of the "deviation" and implementations of these plans to achieve the desired goal(s), then the cycle begins again

3.1.4 Levels of Monitoring

i. *Managers at the Top Level:* They have to develop health plans based on objectives, goals, devise strategy and allocate necessary resources

ii. *Managers at the Middle Level:* They are more concerned with whether they are getting desired output from the inputs that are being utilized

iii. *Managers at the Operational Level:* They have to supervise actual operations and to ensure that planned activities are being carried out as per schedule

These managers are classified in a hierarchy of authority, and perform different tasks. In many organizations, the number of managers in every level resembles a pyramid. There are responsibilities for each level;

Top-level Managers

These are board of directors, president, vice-president, and CEO. These managers are responsible for controlling and overseeing the entire organization. They develop goals, strategic plans, company policies, and make decisions on the direction of the business. They have a significant role in the mobilization of outside resources.Top-level managers are accountable to the shareholders and general public.

Middle-level Managers

These are General managers, branch managers, and department. They are accountable to the top management for their department's function.

Middle-level managers devote more time to organizational and directional functions than top-level managers. Their roles can be emphasized as:

i. Executing organizational plans in conformance with the company's policies and the objectives of the top management;

ii. Defining and discussing information and policies from top management to lower management; and most importantly

iii. Inspiring and providing guidance to low-level managers towards better performance.

Some of their functions are as follows:

i. Designing and implementing effective group and intergroup work and information systems;

ii. Defining and monitoring group-level performance indicators;

iii. Diagnosing and resolving problems within and among work groups;

iv. Designing and implementing reward systems supporting cooperative behavior.

Low-level Managers

These are supervisors, section leads, and foremen. These managers focus on controlling and directing.

Low-level managers usually have the responsibility of:

i.   Assigning employees tasks;

ii.   Guiding and supervising employees on day-to-day activities;

iii.   Ensuring the quality and quantity of production;

iv.   Making recommendations and suggestions; and

v.   Up channeling employee problems.

Also referred to as first-level managers, low-level managers are role models for employees. These managers provide:

i.   Basic supervision;

ii.   Motivation;

iii.   Career planning;

iv.   Performance feedback; and

v.   Staff supervision.

3.1.5   Domains of Information Required in a Monitoring System

1. *Inputs*—Resources going into conducting and carrying out the project or programme. These could include staff, finance, materials, and time.

2. *Process*—Set of activities in which programme resources (human and financial) are used to achieve the results expected from the programme (e.g., number of workshops or number of training sessions).

3. *Outputs*—Immediate results obtained by the programme through the execution of activities (e.g., number of commodities distributed, number of staffs trained, number of people reached, or the number of people served).

Examples of situations that calls for monitoring:

A country director wants to know how many sex workers have been reached by your programme this year. This is **monitoring** because it is concerned with counting the number of something (sex workers reached).

A country director is interested in finding out if the post-abortion care provided in public clinics meets national standards of quality. *This is also **monitoring** because it requires   tracking something (quality of care).*

4.0   CONCLUSION

Monitoring is the   day-to-day management task of collecting and reviewing information that reveals how an operation is proceeding and what aspects of it, if any, need correcting. It should be conducted at every stage of the programme, with data collected, analyzed and used on a continuous basis.

5.0   SUMMARY

In this unit, you have learnt:

- The definition of monitoring;
- The purpose of monitoring;
- Monitoring process
- Levels of monitoring
- Domains of information required in a monitoring system

6.0   ONLINE DISCUSSION AND ASSIGNMENT

1. Cite two examples of situations that calls for monitoring
2. Describe   monitoring of health programme in the Primary health Care where you had your community postings and services
3. Highlight the process you will take in monitoring the vaccination for covid-19 in your ward.

6.1.1   SELF ASSESSMENT

1. Why do you think Monitoring is important for nursing programme? Describe your nursing roles at the different levels of monitoring?

7.0   REFERENCES/FURTHER READING

Frankel, N., & Gage, A. (2007). M&E fundamentals: A self-guided minicourse. *United States Agency for International Development (USAID), Washington, DC. http://www. cpc. unc. edu/measure/publications/pdf/ms-07-20. pdf.*

Family Health International (FHI) (2011). Core Module1: Monitoring HIV/AIDS Programme: A Facilitator's Training Guide. USAID Resource for Prevention, Care and Treatment.

International Federation of Red Cross and Red Crescent Societies (2002). Handbook for Monitoring and Evaluation. 1st edition. Switzerland

School of Geography and Environment (2014). A step by step guide to monitoring and evaluation. Higher Education Innovation Fund at the University of Oxford. Retrieved from: (http://www.geog.ox.ac.uk/research/technologies/projects/monitoringandevaluation.html)

Management Level; a hierarchical View available on:

https://courses.lumenlearning.com/boundless-business/chapter/types-of-management/

Unit 2Overview of Evaluation of Health Programme and Services

CONTENTS

1.0   INTRODUCTION

2.0   OBJECTIVES

3.0   MAIN CONTENTS

      3.1.1   Evaluation

      3.1.2   Uses of evaluation

      3.1.3   Drawback to evaluation

      3.1.4   Types of evaluation

4.0   CONCLUSION

5.0   SUMMARY

6.0   ONLINE DISCUSSION AND ASSIGNMENT

7.0   REFERENCES/FURTHER READING

1.0   INTRODUCTION

Evaluation is the   systematic and objective assessment of an on-going or completed operation, programme or policy, its design, implementation and results. The aim is to determine the relevance and fulfilment of objectives, as well as efficiency, effectiveness, impact (overall Goal) and sustainability. An evaluation should provide information that is credible and useful, enabling the incorporation of lessons into management decision-making.

2.0   OBJECTIVES

At the end of this unit, learner should be able to:

- Describethe evaluation of health programme and services
- Discuss uses of evaluation
- Discuss drawbacksto evaluation of health programme and services
- Describe types of evaluation

3.0   MAIN CONTENTS

3.1.1 Evaluation

Evaluation is a systematic way of learning from experience and using the lessons learnt to improve current activities and promote better planning by careful selection of alternatives for future action. It measures how well the programme activities have met expected objectives and/or the extent to which changes in outcomes can be attributed to the programme or intervention. Evaluation is also the use of social research methods to systematically investigate a programme effectiveness. It is a fundamental exercise to help decision-makers understand how and to what extent, a programme is responsible for particular measured results. The difference in the outcome of interest between having or not having the programme or intervention is   known as it's "impact," and measuring this difference and is commonly referred to as "**Impact Evaluation**."

Evaluations require a well-planned   study design, data collection at the start of a programme (to provide a baseline) and again at the end, rather than at repeated intervals during programme implementation and a control or comparison group in order to measure whether the changes in outcomes can be attributed to the programme.

Evaluation Questions

The following questions when addressed will make for effective evaluation;

1. What outcomes are observed?

2. What do the outcomes mean?

3. Does the programme make a difference?

Here are some of the questions that could be answered with a process evaluation when implementing an initiative to address a syphilis outbreak among men who have sex with men (MSM):

1. How did Disease Intervention Specialists (DIS) and STD programme management collaborate with community-based organizations (CBOs) or other partners to reach MSM who engagein high-risk behaviours?

2. How many CBO outreach workers received STD training?

3. What activities did these partners implement to address the problem?

4. When were these activities conducted?

5. Where were these activities conducted?

6. Was the target population reached?

7. What were the problems encountered in reaching the target population?

3.1.2 Uses of Evaluation

1. To assess the changes in the target group (e.g., changes in risk behaviour)

2. To assess the extent to which objectives have been met. It is the process of determining the effectiveness of a programme or a project.

3. To review the implementation of the programme and/or services provided by health programme so as to identify problems and recommend necessary revisions of the programme.

4. To assess progress towards desired health status at national or state levels and identify reasons for the gap, if any

5. Evaluation contribute towards better health planning

6. To document results achieved by a project funded by donor agencies

7. To know whether desired health outcomes are being achieved and identify remedial measures

8. To improve health programme and the health infrastructure

9. Allocation of resources in current and future programme

10. To track the outcomes and impacts of programme or projects at the larger population level, as opposed to the programme or project level:

    a. Outcomes—Short-term or intermediate results obtained by the programme through the   execution of activities

    b. Impact—Long-term effects (e.g., changes in health status). This can be through special studies with wide district, regional, or national coverage.

11. To render health activities more relevant, more efficient and more effective

3.1.3 Drawback to Evaluations

1. Rigorous study design that includes a comparison or control group

2. Finding a way to measure the effects of your project or programme separate from other projects and programme in the same target group or geographic area

3. Insufficient staff (who can coordinate and guide evaluation design and implementation, including when evaluation is conducted by an external body)

4. Lack of skill in evaluation design, data collection methods (both quantitative and qualitative), analysis, write-up, and dissemination

5. Insufficient financial resources (NGOs face a multitude of pressing priorities and may not be able to spare or raise the extra money needed).

3.1.4 Types of Evaluation

Formative Evaluation evaluates a programme during development in order to make early improvements. It also helps to refine or improve a programme. It ensures that a

programme or programme activity is feasible, appropriate, and acceptable before it is fully implemented. It is usually conducted when a new programme or activity is being developed or when an existing one is being adapted or modified.

Formative Evaluation is used:

1. When starting a new programme
2. To assist in the early phases of programme development
3. for behavior change projects and community engaged projects

Examples of Formative Evaluation:

1. How well is the programme being delivered?
2. What strategies can we use to improve this programme?

Summative Evaluation: Provides information on programme effectiveness and is conducted after the completion of theprogramme design

Uses of Summative Evaluation:

1. To help decide whether to continue, end, or expand a programme

Examples of Summative Evaluation:

1. Should funding continue for this programme?
2. Should service expand to other after-school programme in the community?

Process/ Implementation Evaluation determines whether programme activities have been implemented as intended. Results of a process evaluation will strengthen your ability to report on your programme and use information to improve future activities. It

allows you to track programme information related to Who, What, When and Where questions:

1. To whom did you direct programme efforts?

 Example:

    a. What types and how many target population members received STD services?

2. What has your programme done?

Examples:

    a. Did the programme staff distribute the STD screening protocols to clinics?

    b. Did medical staff counsel, screen, and appropriately treat clinic patients for STDs?

    c. How many professional development workshops were provided for disease intervention specialists (DIS) on protocols for interviewing clients and conducting case management?

    d. Did the programme staff collaborate with the stakeholders or other partners in designing a screening programme?

3. When did your programme activities take place?

 Example:

    a. How many days after interviewing index cases were contacts treated prophylactically?

4. Where did your programme activities take place?

 Example:

    a. Where was outreach conducted to reach the target population(s)?

5. What are the barriers/facilitators to implementation of programme activities?

Outcome / Effectiveness evaluation measures programme effects in the target population by assessing the progress in the outcomes or outcome objectives that the programme   is to achieve.

Outcome evaluation   reflects the intended changes in the programme/service/project target population (knowledge, awareness, attitudes, skills, and behaviour) as well as potential changes in programme policies that you hope to achieve.

Some questions that can be addressed with an outcome evaluation include:

1. Were medical providers who received intensive STD training more likely to effectively counsel, screen and treat patients than those who did not?

2. Did the implementation of STD counselling in community-based organizations result in changes in knowledge, attitudes, and skills among the members of the target population?

3. Did the programme have any unintended (beneficial or adverse) effects on the target population(s)?

4. Do the benefits of the STD activity justify a continued allocation of resources?

Some of the questions you could address with an outcome evaluation in addressing a syphilis outbreak in the MSM community are:

5. As a result of the syphilis initiative, was there any change in the awareness of the syphilis outbreak among MSM who engage in high-risk behaviours?

6. Was there any change in attitudes toward condom use among MSM who engage in high-risk behaviours?

7. Was there any change in intention to use condoms among MSM who engage in high-risk behaviours?

8. Was there any change in syphilis incidence rates among MSM who engage in high-risk behaviours?

9. Did the benefits of the activity justify continued allocation of resources?

Impact Evaluation assesses programme effectiveness in achieving its ultimate goals. ItFocuses on long-term sustained changes as a result of programme activities, both positive and negative or intended and   unintended

Uses of Impact Evaluation

1. To influence policy
2. To see impact in longitudinal studies with comparison groups

Examples ofImpact Evaluation

1. What changes in your programme participants' behaviours are attributable to your programme?
2. What effects would programme participants miss out onwithout this programme?

Types of Evaluation (and when to use them)

Evaluation Types	When to use	What it shows	Why it is useful
Formative Evaluation Evaluability Assessment Needs Assessment	• During the development of a new programme. • When an existing programme is being modified or is being used in a new setting or with a new population.	• Whether the proposed programme elements are likely to be needed, understood, and accepted by the population you want to reach. • The extent to which an evaluation is possible, based on the goals and objectives.	• It allows for modifications to be made to the plan before full implementation begins. • Maximizes the likelihood that the programme will succeed.
Process Evaluation Programme Monitoring	• As soon as programme implementation begins. • During operation of an existing programme.	• How well the programme is working. • The extent to which the programme is being implemented as designed. • Whether the	• Provides an early warning for any problems that may occur. • Allows programme to monitor how well their programmeplans and activities are

		programme is accessible an acceptable to its target population.	working.
Outcome Evaluation Objectives-Based Evaluation	• After the programme has made contact with at least one person or group in the target population.	• The degree to which the programme is having an effect on the target population's behaviours.	• Tells whether the programme is being effective in meeting its objectives.
Economic Evaluation: Cost Analysis, Cost-Effectiveness Evaluation, Cost-Benefit Analysis, Cost-Utility Analysis	• At the beginning of a programme. • During the operation of an existing programme.	• What resources are being used in a programme and their costs (direct and indirect) compared to outcomes?	• Provides programme managers and funders a way to assess cost relative to effects. "How much bang for your buck."
Impact Evaluation	• During the operation of an existing programme at appropriate intervals. • At the end of a programme.	• The degree to which the programme meets its ultimate goal on an overall rate of STD transmission (how much has	• Provides evidence for use in policy and funding decisions.

		programme X decreased the morbidity of an STD beyond the study population).	

Examples of situations that calls for evaluation:

The National Council of Population and Development wants to know if the programme being carried out in province A are reducing unintended pregnancy among adolescents in that province. *This is **evaluation** because it is concerned with the impact of particular programme.*

4.0   CONCLUSION

Evaluation is the use of social research methods to systematically investigate a programmeeffectiveness. It requires study design and a control or comparison group which involves and measurements over time special studies. Evaluations are usually conducted at the end of any programme. However, they should be planned for at the start because they rely on data collected throughout the programme, with baseline data being especially important.

5.0   Summary

In this unit, you have learnt:
- Definition of evaluation
- Uses of evaluation
- Types of evaluation

6.0   ONLINE DISCUSSION AND ASSIGNMENT

Cite two examples of situationsthat calls for monitoring

6.1.1 SELF ASSESSMENT

1. Give five (5) different definitions of evaluation.
2. Highlight the benefits of evaluation to any programme targeting reduction of infant mortality rate in your State.
3. Which of the types of evaluation will you recommend for an ongoing programme.
4. Highlights the types and uses of evaluation.
5. Describe the challenges to evaluation of two health programme / services at the health care setting where you work.

7.0 REFERENCES/FURTHER READING

Frankel N & Gage A (2007). M&E Fundamentals: A Self-Guided Minicourse. U.S. Agency for International Development (USAID)

Family Health International (FHI) (2011). Core Module1: Monitoring HIV/AIDS Programme: A Facilitator's Training Guide. USAID Resource for Prevention, Care and Treatment.

International Federation of Red Cross and Red Crescent Societies (2002). Handbook for Monitoring and Evaluation. 1st edition. Switzerland

School of Geography and Environment (2014). A step by step guide to monitoring and evaluation. Higher Education Innovation Fund at the University of Oxford. Retrieved from: (http://www.geog.ox.ac.uk/research/technologies/projects/monitoringandevaluation.html)

MODULE TWO: CONDUCTING MONITORING AND EVALUATION

Monitoring and   evaluation (M&E) are important management tools to track the progress of services and facilitate decision-making process. It is an essential component of any intervention, project, or programme. It provides organizers, government officials, development managers, and civil society with better means for learning from past experience, improving service delivery, planning and allocating resources, and demonstrating results as part of accountability to key stakeholders. It is aprocess of measuring, recording, collecting and analyzing data on actual implementation of the programme and communicating it to the programme managers so that any deviation from the planned operations are detected, diagnosis for causes of deviation is carried out and suitable corrective actions are taken. M&E is a continuous process that occurs throughout the life of a programme. For a programme or service to be most effective, M&E should be planned at the design stage of a programme, with the time, money and personnel that will be required calculated and allocated in advance.

OBJECTIVES
At the end of this module learners should be able to:

- Describe the importance of monitoring and evaluation
- Describe resources needed for monitoring and evaluation
- Conduct monitoring andevaluation of a health service in an identified health institution.

UNIT 1: GUIDE FOR CONDUCTING EFFECTIVE MONITORING AND EVALUATION

CONTENTS

1.0   INTRODUCTION

Monitoring and evaluation is an important tool in achieving greater accountability in the use of resources, achievement of results and making a clear decision regarding health programme, project or services. This unit will introduce you to basic steps and principles guiding monitoring and evaluation.

2.0   OBJECTIVES

At the end of this unit, learner should be able to:

- Describe the principles of effective monitoring and evaluation
- Identify the importance of monitoring and evaluation
- Discuss the tools of monitoring and evaluation
- Describe the resources for monitoring and evaluation
- Describe the types of monitoring and evaluation

3.0   MAIN CONTENTS

3.1.1 Principles of Effective Monitoring and Evaluation of Health Programme and Services

Right Indicators: Well formulated indicators are the basis for clear and comprehensive monitoring. There is a need for specific, measurable, qualitative, and quantitative data. Reporting on progress towards indicators should go beyond limitations which indicators sometimes contain. It should provide the monitoring body and the public with all information they might look for in the context of each indicator.

Adequate and Timely Report: All   the officers responsible for the implementation of a certain action should be responsible for reporting on progress. Officers at each level should ideally report at least twice a year to ensure public scrutiny of progress. Any paper-based reporting requires templates. For ease of following the numerous activities, a system of enumeration of objectives and activities is recommended in action plans, and the same enumeration should be followed in the reports. Information from other sources should serve to complement and countercheck the data submitted by state bodies. Reports should contain quantitative data on the overall level of implementation, combined with a matrix on the quantitative and qualitative status of each action.

Usage of Information Technology Tools: IT-solutions facilitate structured input, render paperwork obsolete, provide data in real-time, and allow for easy public reporting. Ideally, the monitoring body is connected through a web application with all reporting entities. Whenever an online reporting system is not available, offline software can support the aggregation and analysis of all institutional reports. As an alternative, reports should still be in electronic format sent by email to be consolidated into one table, or such tables could be shared online.

Incentives for Reporting: Incentives should be available to facilitate reporting. This includes clear institutional and individual responsibility for reporting; clear instructions; high-level endorsement; public availability of progress reports; IT-support; and the possibility of on-site audits by the monitoring group.

Monitoring Bodies: Monitoring bodies – if a collegial body – should comprise of a diversity of stakeholders, including civil society, or – if an agency – ensure input from various stakeholders; should meet at least as often as is the frequency of reporting; should have political weight by its location or level of members; should employ staff with relevant expertise, and should promote its work to the public.

Public Access: Public access to progress reports can increase pressure and demand for change. It provides a strong incentive for public bodies to comply with benchmarks contained in indicators. It furthermore allows the public at large to scrutinise how the programme/services meet its goals. Public access means putting all progress reports online in machine-readable format to allow for keyword search or for migrating part of the data for further analysis by civil society organisations. This is also true for evaluation reports.

Participation of Civil Society Inclusion   of civil society in monitoring and evaluating strategies ensures ownership of the process by a large societal basis. Civil society

representatives should be included in any monitoring/coordination commission and its working groups (e.g. for on-site audits), should have access to progress reports, and the monitoring/coordination commission as well as implementing state bodies should take their comments on the implementation of the programme/services

Coordination: Monitoring is not just taking note of progress reports; monitoring bodies also have to steer activities into the right direction. To this end, the monitoring/coordination team and implementing state bodies (depending on the programme) have to show leadership; communicate; review compliance with timelines; allocate resources, and update parts of an action plan in need of review or re-design. Coordination of activities has to reach out to the regional and local levels to ensure inclusion of all stakeholders and flow of information between all levels of government.

Ensuring Compliance: Accessibility of progress reports to the public creates a healthy competition between public entities. Implementation bodies should apply result-oriented management with their staff to facilitate achieving objectives. In addition, it is indispensable for monitoring bodies to not only react to the progress made but explain from the beginning to each agency and staff their particular role and responsibility and point out the benefit of doing so. The possibility of on-site audits by the monitoring body provides an additional incentive for implementing entities to comply with the action plan. **Evaluations**: It is necessary to review the overall success of the programme/services at least once during its timespan. The evaluation should be transparent and result in recommendations on updating the existing programmestrategies or on designing   a follow-up one.

3.1.2 Importance of Monitoring and Evaluation

Monitoring and evaluation help programme implementers;

1. to make informed decisions regarding programme operations and service delivery based on objective evidence

2. to ensure the most effective and efficient use of resources

3. to objectively assess the extent to which the programme is having or has had the desired impact, in what areas it is effective, and where corrections need to be considered

4. to meet organizational reporting and other requirements and convince donors that their investments have been worthwhile or that alternative approaches should be considered.

3.1.3 Tools for Monitoring and Evaluation

Tools are central to quantitative data collection because quantitative methods rely on structured, standardized instruments like questionnaires. Tools (such as open-ended questionnaires or checklists) are often also used in qualitative data collection as a way to guide a relatively standardized implementation of a qualitative method. Tools may be used or administered by programme staff or may be self-administered (meaning that the programme participant or client fills in the answers on the tool). If tools are to be self-administered, there should be procedures in place to collect the data from clients who are illiterate. Space, privacy, and confidentiality should be observed.

Some common quantitative M&E tools include:

1. Sign-in (registration) logs

2. Registration (enrollment, intake) forms; checklists

3. Programme activity forms

4. Logs and tally sheets

5. Patient charts

6. Structured   questionnaires

Examples of Qualitative M&E Tools include;

1. Focus group discussion guide

2. Direct observation checklist

3. In-depth interview guide

3.1.4   Types of Monitoring and Evaluation

Formative Assessments and Research (concept and design)

The Formative   Needs Assessment should be conducted during the planning (or re-planning) stage of a prevention programme to identify programme needs and resolve issues before a programme is widely implemented. This is the point where flexibility is greatest and programme sponsors have more freedom to make decisions about how to proceed with implementation. During a Formative Needs Assessment, the following issues are explored: a) Identifying the need for interventions

b) Defining realistic goals and objectives for interventions

c) Identifying feasible programme strategies

d) Setting programme targets

The Formative Needs Assessment can be used as an exploratory tool and to help project managers adjust objectives to changing situations. It is also used to identify unacceptable or ineffective intervention approaches, designs, and concepts.

Methods of Conducting a Formative Needs Assessment

1. Reviews of existing information

2. Focus group discussions

3. Participant observations

4. Short surveys with structured questionnaires

Questions for Formative Assessment

1. Is an intervention needed?

2. Who needs the intervention?

3. How should the intervention be carried out?

Limitation of Formative Need Assessment

The main limitation of a Formative Needs Assessment is its inability tobe generalized to other projects.

Monitoring (Monitoring inputs, Processes, and Outputs; assessing service quality)

Monitoring is the routine process of data collection and measurement of progress toward programme objectives. There are three main domains of information required in a monitoring system:

 1. Inputs—Resources going into conducting and carrying out the project or programme. These could include staff, finance, materials, and time.

2. Process—Set of activities in which programme resources (human and financial) are used to achieve the results expected from the programme (e.g., number of workshops or number of training sessions).

3. Outputs—Immediate results obtained by the programme through the execution of activities (e.g., number of commodities distributed, number of staff trained, number of people reached, or the number of people served).

Monitoring addresses the following questions:

1. To what extent are planned activities actually realized? Are we making progress toward achieving our objectives?

2. What services are provided, to whom, when, how often, for how long, and in what context?

3. How well are the services provided?

4. What is the quality of the services provided?

5. What is the cost per unit service?

Monitoring also assesses the extent to which a programme or project:

1. Is undertaken consistently with each design or implementation plan

2. Is directed toward the specified target group

Questions Answered by Monitoring

1. To what extent are planned activities actually realized?

2. How well are the services provided?

Evaluation (assessing outcome and Impact)

Evaluation is the use of social research methods to systematically investigate a programme's effectiveness. Evaluation is used for the following:

1. To assess the changes in the target group (e.g., changes in risk behaviour)

2. To assess the extent to which objectives have been met. It is the process of determining the effectiveness of a programme   or a project.

3. To track the outcomes   and impacts of programme or projects at the larger population level, as opposed to the programme or project level:

• Outcomes—Short-term or intermediate results obtained by the programme through the execution of activities

• Impact—Long-term effects (e.g., changes in health status). This can be through special studies with wide district, regional, or national coverage.

Conducting evaluations is very challenging for several reasons:

1. Rigorous study design that includes a comparison or control group 2. Finding a way to measure the effects of your project or programme separate from other projects and

programme in the same target group or geographic area 3. Insufficient staff (who can coordinate and guide evaluation design and implementation, including when evaluation is conducted by an external body)

4. Lack of skill in evaluation design, data collection methods (both quantitative and qualitative), analysis, write-up, and dissemination 5. Insufficient financial resources (NGOs face a multitude of pressing priorities and may not be able to spare or raise the extra money needed) Outcome and impact evaluation is intimately connected to process monitoring. Process information can help the evaluator understand how and why interventions have achieved their effects and, perhaps, what specifically is making the difference. Examining outcome and impact indicators without assessing programme implementation might lead to erroneous conclusions about the effectiveness of the interventions.

Questions Answered by Evaluation

1. What outcomes are observed?

2. What do the outcomes mean?

 3. Does the programme make a difference?

Evaluations are conducted to find out what has happened as a result of a project or programme or a set of projects and programme.

Cost-Effectiveness Analysis (including sustainability issues)

Cost-effectiveness helps managers and planners make decisions about the use of their budgets and funding. With this information, decision-makers can make choices about how to allocate their funds and decide whether or not the funds are being spent appropriately and whether they should be re-allocated. This entails combining the results of monitoring data and cost data.

Questions Answered by Evaluation

1. Should programme priorities be changed or expanded? •
2. To what extent should resources be re-allocated?

Questions Answered by the Different Types of Monitoring and Evaluation:

1. Is an intervention needed?
2. Who needs the intervention?
3. How should the intervention be carried out?
4. To what extent are planned activities actually realized?
5. How well are the services provided?
6. What outcomes are observed?
7. What do the outcomes mean?
8. Does the programme make a difference?
9. Should programme priorities be changed or expanded?
10. To what extent should resources be reallocated?

3.1.5 Resources for Monitoring and Evaluation

Inadequate resources lead to poor quality monitoring and evaluation. To ensure effective and quality monitoring and evaluation, it is critical to set aside adequate financial and human resources at the planning stage. The required financial and human resources for monitoring and evaluation should be considered within the overall costs of delivering the agreed results and not as additional costs.

Financial Resources for monitoring and evaluation should be estimated realistically at the time of planning for monitoring and evaluation. While it is critical to plan for monitoring and evaluation together, resources for each function should be separate. In practice, each project should have two separate budget lines for its monitoring and evaluation agreed in advance with partners. This will help UNDP and its partners be

more realistic in budgeting. It will also reduce the risk of running out of resources for evaluation, which often takes place towards the end of implementation. Monitoring and evaluation costs associated with projects can be identified relatively easily and be charged directly to the respective project budgets with prior agreement among partners through inclusion in the project budget or Annual Work Plan (AWP) signed by partners. Sourcing and securing financial resources for monitoring and evaluation of outcomes or programme can pose additional challenges, as there is not one project where these costs can be directly charged. The most commonly observed financing mechanism is to draw resources together from relevant projects. Some additional possibilities include:

1. Create a separate monitoring and evaluation fund, facility or project associated with an outcome or a programme to which all the constituent projects would 91 contribute through transfer of some project funds. This facility could be located in the same entity that manages the outcome or programme.
2. Mobilize funds from partners directly for an outcome or programme monitoring and evaluation facility.
3. Allocate required funds annually for each outcome on the basis of planned costs of monitoring and evaluation from the overall programme budget to the facility or fund.

It is important that partners consider the resources needed for monitoring and evaluation and agree on a practical arrangement to finance the associated activities. Such arrangements should be documented at the beginning of the programme to enable partners to transfer necessary funds in accordance with their procedures, which could take considerable time and effort.

Human Resources are critical for effective monitoring and evaluation, even after securing adequate financial resources. For high-quality monitoring and evaluation, there should be:

Dedicated Staff Time—For effective monitoring and evaluation, staff should be dedicated for the function. The practices of deployment of personnel for monitoring vary among organizations. Some UNDP country offices have established monitoring and evaluation units with specific terms of references (ToRs), dedicated skilled staff, work plans and other resources.

Skilled Personnel—Staff entrusted with monitoring should have required technical expertise in the area. A number of UNDP country offices have a dedicated monitoring and evaluation specialist. Where necessary, skill levels should be augmented to meet the needs and with ongoing investments in developing such capacity within the office as necessary. Each monitoring and evaluation entity that functions at different levels, for example at the project, programme or outcome level, should have a clear ToR outlining its role and responsibilities. In general, these responsibilities should include:

1. Setting up systematic monitoring frameworks and developing an evaluation plan
2. Meeting regularly with key partners and stakeholders to assess progress towards achieving the results
3. Conducting joint field monitoring and evaluation missions to assess achievements and constraints
4. Identifying any lessons or good practices
5. Reflecting on how well the results being achieved are addressing gender and the interests and rights of marginalized and vulnerable groups in the society
6. Identifying additional capacity development needs among stakeholders and partners

7. Reporting regularly to the lead individuals or agencies for the particular result areas and seeking opportunities to influence policy and decision-making processes
8. Ensuring the quality of monitoring and evaluation work and providing guidance as needed
9. Assessing the relevance of the M&E framework on a regular basis based on emerging development priorities and changing context

4.0 Conclusion

M&E is the process by which data are collected and analyzed in order to provide information to policymakers and others for use in programme planning and project management

5.0 Summary

In this unit you have learnt:

- The principles of M&E
- Important of M&E
- Tools required for M&E
- Resources required for M&E

6.0 Online Discussion and Assignment

1. Discuss resources needed for monitoring and evaluation
2. Describe the principles of monitoring and evaluation

6.1.1 SELF ASSESSMENT

Enumerate the principles of Monitoring and Evaluation

7.0 REFERENCES/FURTHER READING

Frankel N & Gage A (2007). M&E Fundamentals: A Self-Guided Minicourse. U.S. Agency for International Development (USAID)

Family Health International (FHI) (2011). Core Module1: Monitoring HIV/AIDS Programme: A Facilitator's Training Guide. USAID Resource for Prevention, Care and Treatment.

Regional anti-corruption initiative (2019). Ten Principles of Effective Monitoring and Evaluation of the Implementation of National Anti-corruption Strategies and Action Plans. Retrieved from: http://rai-see.org/wp-content/uploads/2015/05/Ten_Principles_of_Effective_Monitoring_and_Evaluation1.pdf. Accessed: January 24, 2020

Ten Principles of Effective Monitoring and Evaluation (2015) available on **https://rai-see.org/wp-content/uploads/2015/05/Ten_Principles_of_Effective_Monitoring_and_Evaluation1.pdf**

Unit 2   DESIGNING MONITORING AND EVALUATION SYSTEM

CONTENTS

1.0   INTRODUCTION

2.0   OBJECTIVES

3.0   MAIN CONTENTS

      3.1.1   Steps in designing monitoring and evaluation system

      3.1.2   Monitoring and evaluation plan

      3.1.3   Important of monitoring and evaluation plan

      3.1.4   Features of monitoring and evaluation plan

      3.1.5   Components of monitoring and evaluation plan

4.0   CONCLUSION

5.0   SUMMARY

6.0   ONLINE DISCUSSION AND ASSIGNMENT

7.0   REFERENCES/FURTHER READING

1.0   INTRODUCTION

Designing a monitoring   and evaluation system depend on what you are trying to monitor and evaluate. Monitoring and evaluation is important not only help organizations reflect and understand past performance but serve as a guide for constructive changes during the period of implementation

2.0   OBJECTIVES

At the end of this unit, learner should be able to:

- Describe the steps in designing monitoring and evaluation system

- Describe M&E plan and what it entails

- Identify the important and features of M&E plan

- Discuss the components of M&E plan

3.0 MAIN CONTENTS

3.1.1 The Steps in Designing a Monitoring and Evaluation System

1. Identify who will be involved in the design, implementation, and reporting. Engaging stakeholders helps ensure their perspectives are understood and feedback is incorporated.

2. Clarify scope, purpose, intended use, audience, and budget for evaluation.

3. Develop the questions to answer what you want to learn as a result of your work.

4. Select indicators. Indicators are meant to provide a clear means of measuring achievement, to help assess the performance, or to reflect changes. They can be either quantitative and/or qualitative. A process indicator is information that focuses on how a programme is implemented.

5. Determine the data collection methods. Examples of methods are document reviews, questionnaires, surveys, and interviews.

6. Analyze and synthesize the information you obtain. Review the information obtained to see if there are patterns or trends that emerge from the process.

7. Interpret these findings, provide feedback, and make recommendations. The process of analyzing data and understanding findings should provide you with recommendations about how to strengthen your work, as well as any mid-term adjustments you may need to make.

8. Communicate your findings and insights to stakeholders and decide how to use the results to strengthen your organization's efforts.

Table 2.1.Summary of Steps in Designing a Monitoring and Evaluation System

Step	To-do-list
Check the operation's design	Review and revise (and if necessary, prepare) a logical framework Ensure that objectives for Goal (impact), Purpose (outcome), Outputs and Assumptions are clearly stated and measurable. Ensure that indicators are adequately specified with quantity, quality and time.
Assess capacity for monitoring and evaluation	Identify what human and financial resources are available to Assess training requirements for all monitoring staff, both from the International Federation and National Societies and counterpart bodies. Specify training requirements
Plan for data collection and analysis	Check existing information sources for reliability and accuracy, to determine what data is already available. Decide what additional information should be collected, for baseline purposes, for monitoring and for evaluation. Set a timeframe and schedule for data collection and processing and agree on responsibilities.
Prepare the monitoring and evaluation plan and budget	Summarise agreed information needs, data collection, information use, reporting and presentation in a monitoring and evaluation plan. Summarise capacity building and support requirements. Cost all monitoring and evaluation activities and identify funding

	sources.
Plan for reporting and feedback	Design the reporting system, specifying formats for reports. Devise a system of feedback and decision-making for management.

3.1.2 Monitoring and Evaluation Plan

This is the fundamental document that details a programme's objectives, the interventions developed to achieve these objectives and describes the procedures that will be implemented to determine whether or not the objectives are met. Every project or intervention should have anM&E plan andit should be created during the design phase of a programme. This document shows how the expected results of a programme relate to its goals and objectives, describes the data needed and how these data will be collected and analyzed, how this information will be used, the resources that will be needed, and how the programme will be accountable to stakeholders. M&E plan should be considered a living document and revised whenever a programme is modified, or new information is needed. M&E plan can be organized in different ways and included in the plan are:

1. the **underlying assumptions** on which the achievement of programme goals depend;

2. the **anticipated relationship**s between activities, outputs, and outcomes;

3. well-defined conceptual **measures and definitions**, along with baseline values;

4. the **monitoring schedule;**

5. a list of **data sources** to be used;

6. **cost estimates** for the M&E activities;

7. a list of the **partnerships and collaborations** that will help achieve the desired results; and

8. a plan for the **dissemination and utilization** of the   information gained.

3.1.3   Importance of M&E Plan

1. state how a "programme will measure its achievements and therefore provide accountability;

2. document consensus and provide transparency;

3. guide the implementation of M&E activities in a standardized and coordinated way; and

4. preserve institutional   memory.

3.1.4   Features of M&E Plan

1. M&E plans should   serve the information needs of the intended users in practical ways. These users can range from those assessing national programme performance at the highest central levels to those allocating resources at the district or local level.

2. M&E plans should convey technically accurate information and should be realistic, prudent, diplomatic and frugal.

3. The activities described in M&E plans should be conducted legally, ethically, and with regard to those involved in and affected by them

3.1.5 Components of an M&E Plan

Thecomponents of an M&E plan include:

1. Introduction

2. Programmedescription and framework

3. **Detaileddescription of the plan indicators**

4. Datacollection plan

5. Planfor monitoring

6. Planfor evaluation

7. Planfor the utilization of the information gained

8. **Mechanismfor updating the plan**

Introduction

The introduction to the M&E plan should include:

1. information about the purpose of the programme, the specific M&E activities that are needed and why they are   important; and

2. a development history that provides information about the motivations of the internal and external stakeholders and the extent of their interest, commitment and participation.

The programme description should include:

    a. The **problem statement** that identifies the specific problem to be addressed. This concise statement provides information about the situation that needs changing, who it affects, its causes, its magnitude and its impact on society;

    b. The **programme goal and objectives**:

    i. a programme's **goal** is a broad statement about the desired long-term outcome of the programme. For example, improvement in the reproductive health of adolescents or a reduction in unwanted pregnancies in X population would be goals

    ii. **objectives** are statements of desired specific and measurable programme results. The objectives should be "SMART," an acronym that stands for:

    a. **Specific:** Is the desired outcome clearly specified?

    b. **Measurable:** Can the achievement of the objective be quantified and measured?

    c. **Appropriate:** Is the objective appropriately related to the programme's goal?

    d. **Realistic:** Can the objective realistically be achieved with the available resources?

    e. **Timely:** In what time period will the objective be achieved?

Examples of objectives would be; to reduce the total fertility rate to 4.0 births by year X or to increase contraceptive prevalence over the life of the programme

Descriptions of the specific interventions to be implemented and their duration, geographic scope and   target population;

The list of   resources needed, including financial, human, and those related to the infrastructure (office space, equipment and supplies);

The **conceptual framework**, which is a graphical depiction of the factors thought to influence the problem of interest and how these factors relate to each other; andthe **logical framework** or **results framework** that links the goal and objectives to the interventions.

Indicators *are* clues, signs or markers that measure one aspect of a programme and show how close a programme is to its desired path and outcomes. It is one of the most critical steps in designing an M&E system because they are used to monitor programme implementation and achievement of the goals and objectives.They are used to provide benchmarks for demonstrating the achievements of a programme.

*Data sources*are sources of information used to collect the data needed to calculate the indicators.

i. The data collection plan should include diagrams depicting the systems used for data collection, processing, analysis and reporting. The strength of these systems determines the validity of the information obtained.

ii. Potential errors in data collection, or in the data themselves, must be carefully considered when determining the usefulness of data sources.

Monitoring Plan describes specific programme components that will be monitored, such as provider performance or the utilization of resources; how this monitoring will be conducted; and the indicators that will be used to measure results. Because monitoring is concerned with the status of ongoing activities, output indicators, also known as process

indicators, are used. For example, these indicators might be the following: *How many children visit a child health clinic in one month? How many of these children are vaccinated during these visits?*

Evaluation Plan: This provides the specific research design and methodological approaches to be used to identify whether changes in outcomes can be attributed to the programme. For instance, if a programme wants to test whether quality of patient care can be improved by training providers, the evaluation plan would identify a research design that could be used to measure the impact of such an intervention.

One way this could be investigated would be through a quasi-experimental design in which providers in one facility are given a pretest, followed by the training and a posttest. For comparison purposes, a similar group of providers from another facility would be given the same pretest and posttest, without the intervening training. Then the test results would be compared to determine the impact of the training.

Plan for the utilization of the information gained: this involves how the information gathered will be disseminated and use. This should be defined at the planning stage of the project and described in the M&E plan. This will help ensure that findings from M&E efforts are not wasted because they are not shared. The various users of this information should be clearly defined, and the reports should be written with specific audiences in mind. Dissemination channels can include written reports, press releases and stories in the mass media, and speaking events.

Mechanism for updating the plan: The capacities needed to implement the efforts described in the M&E plan should be included in the document. A mechanism for reviewing and updating the M&E plan should also be included. This is because changes in the programme can and will affect the original plans for both monitoring and evaluation.

3.1.6 How to organize M&E plan

1. the **underlying assumptions** on   which the achievement of programme goals depend;

2. the **anticipated relationship**s between activities, outputs, and outcomes;

3. well-defined conceptual **measures and definitions**, along with baseline values;

4. the **monitoring schedule;**

5. a list of **data sources** to be used;

6. **cost estimates** for the M&E activities;

7. a list of the **partnerships and collaborations** that will help achieve the desired results; and

8. a plan for the **dissemination and utilization** of the   information gained.

4.0   CONCLUSION

The activities described in M&E plans should be conducted legally, ethically, and with regard to those involved in and affected by them.

5.0   SUMMARY

In this unit you have learnt:

- Steps in designing monitoring and evaluation system
- Monitoring and evaluation plan and all it entails

6.0   ONLINE DISCUSSION AND ASSIGNMENT

Discuss the components of M&E plan

6.1.1 SELF ASSESSMENT

You have been nominated to coordinate the M&E plan for the family Planning service at your PHC, highlight how you will doe this

7.0   REFERENCES/FURTHER READING

Frankel N & Gage A (2007). M&E Fundamentals: A Self-Guided Minicourse. U.S. Agency for International Development (USAID)

Family Health International (FHI) (2011). Core Module1: Monitoring HIV/AIDS Programme: A Facilitator's Training Guide. USAID Resource for Prevention, Care and Treatment.

International Federation of Red Cross and Red Crescent Societies (2002). Handbook for Monitoring and Evaluation. 1st edition. Switzerland

UNIT 3   MONITORING AND EVALUATION FRAMEWORKS
CONTENTS
1.0   INTRODUCTION
2.0   OBJECTIVES
3.0   MAIN CONTENTS
    3.1.1 Evaluation
    3.1.2 Common types of monitoring and evaluation
4.0   CONCLUSION
5.0   SUMMARY

6.0   ONLINE DISCUSSION AND ASSIGNMENT

7.0   REFERENCES/FURTHER READING

1.0   INTRODUCTION

Monitoring and evaluation take place at multiple stages of a programme. At each stage, we gather different information that comes together to demonstrate how the project has been conducted and what has occurred as a result. It is important to identify at the outset how we will gather the information for each level of evaluation. It is also important to keep in mind that some of these stages overlap and can, in different situations, represent different levels. For example, outcome-level data on risk behaviours of target groups can be used to evaluate the effectiveness of a programme or set of programme without associating the changes with any single programme. The need for an M&E framework applies for both programme and projects within a programme. Therefore, both programme and projects should develop M&E frameworks in their planning stages. The project-level M&E framework should cascade from the programme level M&E framework and could contain more detailed information on monitoring and evaluation tasks that apply specifically   to respective projects.

2.0   OBJECTIVES

At the end of this unit, learner should be able to:
- Describetypes of M&E frameworks
- Formulate statements for the five essential components of logic models

3.0   MAIN CONTENTS

3.1.1   Monitoring and evaluation frameworks

Frameworks are key elements of M&E plans that depict the components of a project and the sequence of steps needed to achieve the desired outcomes. They help increase understanding of the programme's goals and objectives, define the relationships between factors key to implementation, and delineate the internal and external elements that could affect its success. They are crucial for understanding and analyzing how a programme is supposed to work.There is no one perfect framework and no single framework is appropriate for all situations.

3.1.2   Common Types of M&E frameworks

Conceptual Framework

A conceptual framework, sometimes called a "research framework," is useful for identifying and illustrating the factors and relationships that influence the outcome of a programme or intervention.

Conceptual frameworks are typically shown as diagrams illustrating causal linkages between the key components of a programme and the outcomes of interest. Example of a conceptual framework is shown below, the programme, in addition to other donors, is supplying health services, in order to increase service utilization, with the ultimate outcome of improved health. By identifying the variables that factor into programme performance and depicting the ways that they interact, the results that can reasonably be expected from programme activities are outlined. Clarifying this process permits programme designers to develop valid measures for evaluating the success of the outcomes and also guides the identification of appropriate indicators.
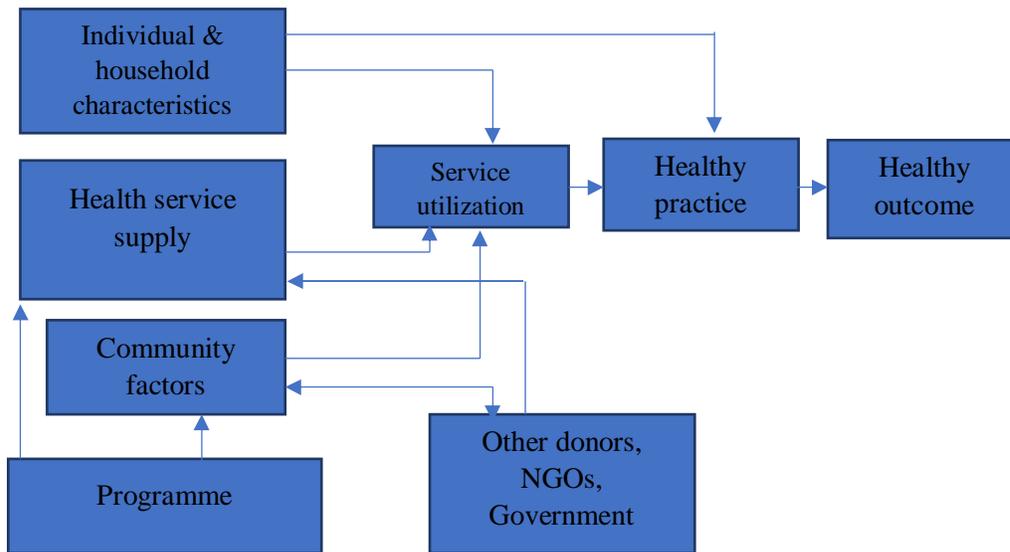
Another example of a conceptual framework, the Mosley-Chen Framework, is commonly used in the study of child survival. In this framework, socio-economic determinants act through the following five "proximate" or biological determinants to impact child health.
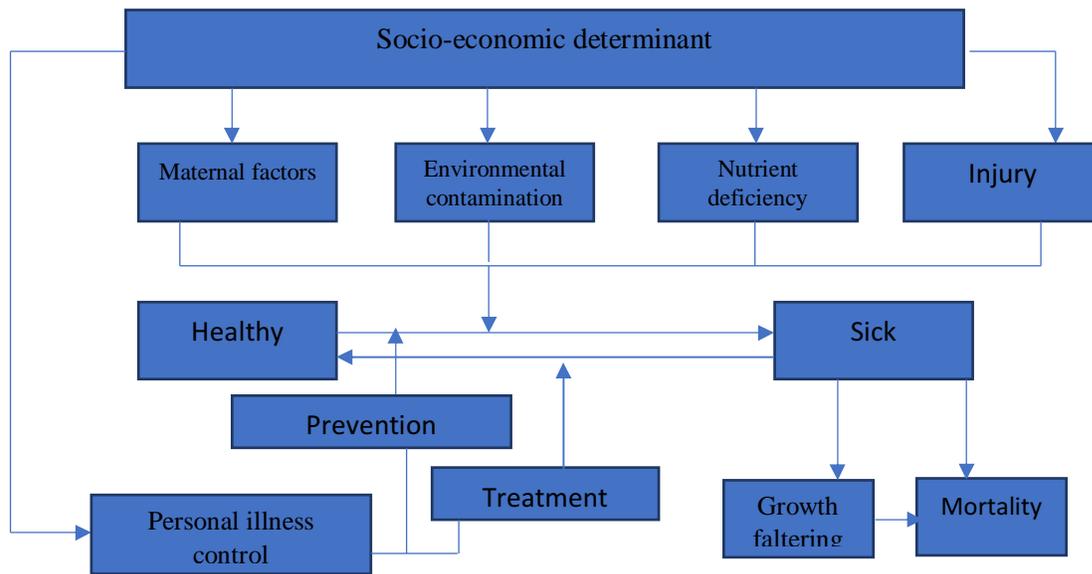
The above conceptual framework is the Mosley-Chen Framework, it's commonly used in the study of child survival. In this framework, socio-economic determinants act through the following five "proximate" or biological determinants to impact child health.

- maternal factors (age, parity, birth interval)
- environmental contamination (air, food, water, soil, insect vectors)
- nutrient deficiency (calories, proteins, vitamins, minerals)
- injury (accidental or intentional)
- personal illness control (preventive measures and medical treatment)

Results Framework

Results/logical frameworks aresometimes called "strategic frameworks," diagram 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.

As can be seen in this example, results frameworks include an overall goal, a **<u>Strategic Objective (SO)</u>** and **<u>Intermediate Results (IRs)</u>**.

- An SO is an outcome that is the most ambitious result that can be achieved and for which the organization is willing to be held responsible.
- An IR is a discrete result or outcome that is necessary to achieve an SO.
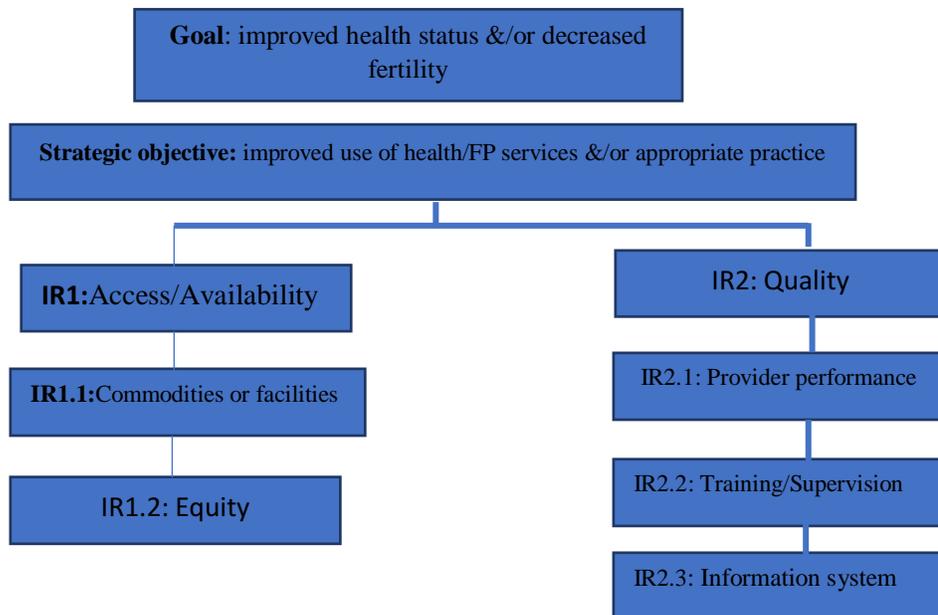
Notice that the goal and strategic objective appear at the top of the framework. Before achieving this broader strategic objective, a set of "lower-level" intermediate results must first be reached. Under each IR are subordinate intermediate results, or sub-IRs that relate directly to the intermediate results. For example, under IR1, you will see IR1.1 and IR 1.2. IR1.1 and IR 1.2 are sub-IRs.

Here is a portion of the same results framework with the information filled in. For example, as you can see under IR2, the information system, training and supervision of clinicians, and provider performance are factors that lead to improved quality of health services. Notice that IRs and sub-IRs need to be measurable; in other words, indicators can be developed for them and data can be collected to calculate them.

Logical Framework or Logframe Matrix

Logframe hierarchy	Performance indicators	Means of verification	Assumptions & risks
Goal Higher objective to which this operation, along with others, is intended to contribute.	(Impact) Indicators (increasingly standardised) to measure programme performance.	The programme evaluation system	**(Goal-to-Super-Goal)** Risks regarding strategic impact.
Purpose The outcome of an operation. The change in beneficiary behaviour, systems or institutional performance because of the combined output strategy and key assumptions.	(Outcomes) Measures that describe the accomplishment of the Purpose. The value, benefit and return on the investment.	People, events, processes, sources of data for organising the operation's evaluation system.	**(Purpose-to-Goal)** Risk regarding programme level impact
Outputs The actual deliverables. What the operation can be held accountable for producing	Output indicators that measure the goods & services finally delivered by the operation.	People, events, processes, sources of data – supervision & monitoring system	**(Output-to-Purpose)** Risks regarding design effectiveness.

		for validating the operation's design.	
Activities The main activity clusters that must be undertaken in order to accomplish the Outputs.	Inputs/Resources Budget by activity. Monetary, physical & human resources required to produce the outputs.	People, events, processes, sources of data –monitoring system for validating implementation progress	(Activity-to-Output) Risks regarding implementation & efficiency

Logic model

A **logic model** sometimes called an "M&E framework," provides a streamlined linear interpretation of a project's planned use of resources and its desired ends.

Logic models have five essential components:

Inputs –Inputs are essentially the resources or things that must be put in or invested in order for activities to take place. Inputs are also part of the results chain. Inputs include the time of staff, stakeholders and volunteers; money; consultants; equipment; technology; and materials. The general tendency is to use money as the main input, as it covers the cost of consultants, staff, materials, and so forth. However, in the early stages of planning, effort should be spent on identifying the various resources needed before converting them into monetary terms. The guidance above should help to prepare the first column ('results') in the results framework. for example, technical assistance, computers, condoms or training

Processes – these are the activities carried out to achieve the programme's objectives. Activities describe the actions that are needed to obtain the stated outputs. They are the coordination, technical assistance and training tasks organized and executed by project personnel. In a result-based management (RBM) context, carrying out or completing a

programme or project activity does not constitute a development result. Activities relate to the processes involved in generating tangible goods and services or outputs, which in turn contribute to outcomes and impacts.

Formulating the Activities/ Processes

In formulating activities, the following questions should be addressed:

1. What actions are needed in order to obtain the output?
2. Will the combined number of actions ensure that the output is produced?
3. What resources (inputs) are necessary to undertake these activities?
4. It is important to bear in mind:

Note that:

a. Activities usually provide quantitative information and they may indicate periodicity of the action and more than one activity is needed to achieve an output.
b. Activities generally start with a verb and describe an activity or action

Outputs – the immediate results achieved at the programme level through the execution of activities. Outputs are short-term development results produced by project and non-project activities. They must be achieved with the resources provided and within the timeframe specified (usually less thanfive years).

Formulating the Output Statement

Since outputs are   the most immediate results of programme or project activities, they are usually within the greatest control of the government, sponsors or the project. Outputs must be deliverable within the respective programme cycle and more than one output is needed to obtain an outcome.

Questions to address when formulating outputs statement

1. What kind of policies, guidelines, agreements, products and services do we need in order to achieve a given outcome?

2. Are they attainable and within our direct control?

3. Do these outputs reflect an appropriate strategy for attaining the outcome? Is there a proper cause and effect relationship?

4. Do we need any additional outputs to mitigate potential risks that may prevent us from reaching the outcome?

5. Is the output SMART—specific, measurable, achievable, relevant and time-bound?

Outcomes – Outcomes are actual or intended changes in development conditions that interventions are seeking to support. Outcomes describe the intended changes in development conditions that result from the interventions of governments and other stakeholders, including international development agencies such as UNDP. They are medium-term development results created through the delivery of outputs and the contributions of various partners and non-partners. Outcomes provide a clear vision of what has changed or will change globally or in a particular region, country or community within a period of time. They normally relate to changes in institutional performance or behaviour among individuals or groups. Outcomes cannot normally be achieved by only one agency and are not under the direct control of a project manager. Since outcomes occupy the middle ground between outputs and impact, it is possible to define outcomes with differing levels of ambition. For this reason, some documents may refer to immediate, intermediate and longer-term outcomes, or short-medium and long-term outcomes.

Formulating the Outcome Statement

1. An outcome statement should ideally use a verb expressed in the past tense, such as 'improved', 'strengthened' or 'increased', in relation to a global, regional, national or local process or institution.

2. An outcome should not be stated as "UNDP support provided to Y" or "technical advice provided in support of Z," but should specify the result of UNDP efforts and that of other stakeholders for the people of that country.

3. An outcome statement should avoid phrases such as "to assist/support/develop/ monitor/identify/follow up/prepare X or Y."

4. Similarly, an outcome should not describe how it will be achieved and should avoid phrases such as "improved through" or "supported by means of."

5. An outcome should be measurable using indicators. It is important that the formulation of the outcome statement takes into account the need to measure progress in relation to the outcome and to verify when it has been achieved. The outcome should, therefore, be specific, measurable, achievable, relevant and time-bound (SMART).

6. An outcome statement should ideally communicate a change in institutional or individual behaviour or quality of life   for people—however modest that change maybe

SMART Outcomes and Impacts

S	Specific: Impacts and outcomes and outputs must use change language—they must describe a specific future condition
M	Measurable: Results, whether quantitative or qualitative, must have measurable indicators, making it possible to assess whether they were achieved or not
A	Achievable: Results must be within the capacity of the partners to achieve
R	Relevant: Results must make a contribution to selected priorities of the national development framework
T	Time-bound: Results are never open-ended—there is an expected date of accomplishment

The following illustrate different levels of outcomes:

1. Policy, legal and regulatory framework reformed to substantially expand connectivity to information and communication technologies (short to medium term)
2. Increased access of the poor to financial products and services in rural communities (medium to long term)
3. Reduction in the level of domestic violence against women in five provinces by 2014 (medium to long term)
4. Increased volume of regional and sub-regional trade by 2015 (medium to long term)

Impacts – the long-term effects, or end results, of the programme, for example, changes in health status (in this context, the term "impact" refers to the health status or conditions that the programme is intended ultimately to influence [mortality, morbidity, fertility, etc.], as measured by appropriate **indicators**; measuring "impact"

in this way, however, should be distinguished from **__impact evaluation__**, which is a specific type of evaluation activity that focuses on examining how much of an observed change in outcomes or "impact" can be attributed to the programme).

Formulating Impact Statement

 Impacts are actual or intended changes in human development as measured by people's well-being. Impacts generally capture changes in people's lives. The completion of activities tells us little about changes in development conditions or in the lives of people. It is the results of these activities that are significant. Impact refers to   the 'big picture' changes being sought   and represents the underlying goal of development work. In the process of planning, it is important to frame planned interventions or outputs within a context of their desired impact. Without a clear vision of what the programme or project hopes to achieve, it is difficult to clearly define results. An impact statement explains why the work is important and can inspire people to work toward a future to which their activities contribute. Similar to outcomes, an impact statement should ideally use a verb expressed in the past tense, such as 'improved', 'strengthened', 'increased', 'reversed' or 'reduced'. They are used in relation to the global, regional, national or local social, economic and political conditions in which people live. Impacts are normally formulated to communicate substantial and direct changes in these conditions over the long term—such as reduction in poverty and improvements in people's health and welfare, environmental conditions or governance. The MDG and other international, regional and national indicators are generally used to track progress at the impact level.

In other words, inputs (or resources) are used in processes (or activities) which produce immediate intermediate results (or outputs), ultimately leading to longer-term or broader results (or outcomes) and impacts.

The example above presents a straightforward view of a project designed to reduce population morbidity by increasing the number of clients served by trained health-care providers. As you can see, it does not try to account for all factors that may be influencing operations and results as a conceptual framework would, but instead focuses specifically on the project's activities and impacts. This narrow focus assists programme managers and M&E planners as they clarify the direct relationships between elements of particular interest within a particular programme   effort.

In summary:

Input – Develop clinical training curriculum

Process – Conduct training events

Output – Practitioners trained in new clinical techniques

Outcome– Increased in clients served by newly trained providers

Impact –Declining morbidity levels in target population

INPUT

Financial resources	VCT protocol	Human resources	HIV test Kits

PROCESES

Provide pre-test counseling	Provide HIV testing	Provide post-test counseling

OUTPUTS

People learn their HIV status

OUTCOMES

Client develop personalized HIV risk reduction strategies

Risky behaviours decreased

IMPACTS

HIV transmission rates decreases

HIV incidence decreases

HIV morbidity & mortality decreases

This is a small portion from a logic model for an HIV voluntary counselling and testing (VCT) programme.

It is important to remember that, within a programme, several activities can have their own inputs and outputs. Collectively the outputs of the activities contribute to the programme outcomes and impacts. In some cases, the output of one programme activity could be an input for another activity. For example, if an activity is to develop guidelines, the output of that activity is the guidelines, which can then be an input (VCT protocols) in this overall logic model for VCT-service delivery.

4.0   CONCLUSION

Using frameworks is one way to develop a clearer understanding of the goals and objectives of a project, with an emphasis on identifying measurable objectives, both short-term and long-term. Frameworks, such as the three types discussed in this course, also help define the relationships between factors key to the implementation and success of a project, both internal and external to the programme context. This design process deepens the understanding of managers, implementers, and other partners in many practical ways, including serving as the foundation for selecting appropriate, useful M&E indicators.

5.0   SUMMARY

In this unit you have learnt:

The different types of M&E frameworks

6.0   ONLINE DISCUSSION AND ASSIGNMENT

1. Describe the common types of monitoring and evaluation frameworks
2. Formulate an outcome, input and impactstatement

6.1.1 SELF ASSESSMENT

Identify the five (5) components of M& E framework

7.0   REFERENCES/FURTHER READING

Frankel N & Gage A (2007). M&E Fundamentals: A Self-Guided Minicourse.
U.S. Agency for International Development (USAID)

Family Health International (FHI) (2011). Core Module1: Monitoring HIV/AIDS
Programme: A Facilitator's Training Guide. USAID Resource for
Prevention, Care and Treatment.

International Federation of Red Cross and Red Crescent Societies (2002).
Handbook for Monitoring and Evaluation. 1st edition. Switzerland

UNIT 4   INDICATORS

CONTENTS

1.0   INTRODUCTION

An indicator is a   *variable* that *measures one aspect* of a programme or project that is directly related to the programme's objectives. Let's take a moment to go over each piece of this definition. An indicator is a *variable* whose value changes from the baseline level at the time the programme began to a new value after the programme and its activities have made their impact felt. At that point, the variable, or indicator, is calculated again. Secondly, an indicator is a *measurement*. It measures the value of the change in meaningful units that can be compared to past and future units. This is usually expressed

as a percentage or a number. Finally, an indicator focuses on a *single aspect* of a programme or project. This aspect may be an input, an output or an overarching objective, but it should be narrowly defined in a way that captures this one aspect as precisely as possible. A reasonable guideline recommends one or two indicators per result, at least one indicator for each activity, but no more than 10-15 indicators per area of significant programme   focus.

2.0   OBJECTIVES

At the end of this unit, learner should be able to:
- Describeindicators and its different types
- Discuss steps in developing appropriate indicators for a project/programme
- Describe the importance of indicators
- Discuss challenges to select indicators

3.0   MAIN CONTENTS

3.1.1 Steps in developing appropriate indicators for a project/programme

1. *Involve your programme stakeholders in indicator development.* Bring stakeholders together to identify meaningful indicators. This will help ensure the buy-in for your evaluation findings. Consider consulting existing literature and other relevant resources to assist with identifying indicators.

2. *Review evaluation questions and use your logic model as a template to develop indicators.* Link process indicators to your logic model outputs, Link outcome indicators to your logic model outcomes.

3. *Review indicators to ensure they are specific, observable, and measurable*

Example: "The *proportion* of gonorrhoea cases among women 14–19 years of age interviewed within 7 days from the date of specimen collection"

Specific: "gonorrhoea cases among women 14–19 years of age" Observable: "interviewed within 7 days from the date of specimen collection"

Measurable: "proportion of gonorrhoea cases"

4. ***Include baseline data for inputs and outcomes if you are trying to measure change.*** For example, increased adherence of clinical staff to STD guidelines from time period 1 to time period 2.

5. ***Determine whether the indicators;***

    i.   Provide useful information that can measure processes and outcomes and answer evaluation questions • Are feasible in terms of data availability and timely data collection

    ii.   Are adequate to capture the information you need. You may need to develop more than one indicator but avoid creating too many indicators because they can detract from the evaluation's goals.

Guidelines for Selecting Indicators

1. Select indicators requiring data that can realistically be collected with the resources available.

2. Select at least one or two indicators (ideally, from different data sources) per key activity or result.

3. Select at least one indicator for each core activity (e.g., training event, social marketing message, etc.).

4. Select no more than 8-10 indicators per area of significant programme focus.

5. Use a mix of data collection sources whenever possible.

Examples of Indicators

Percentage of clinic personnel who have completed a particular training workshop

Number of radio programme about family planning aired in the past year

Percentage of clinics that experienced a stockout of condoms at any point during a given time period

3.1.2 Types of Indicators

Indicators can be either be quantitative or qualitative.

Quantitative indicators are statistical measures that are numeric and are presented as any of the following:

1. Percentages.
2. Number
3. Rate (example: birth rate—births per 1,000 population)
4. Ratio (example: sex ratio—number of males per number of females)

Qualitative indicators are descriptive observations and can be used to supplement the numbers and percentages provided by quantitative indicators. They complement quantitative indicators by adding a richness of information about the context   in which the programme has been   operating. Qualitative indicators reflect people's judgements, opinions, perceptions and attitudes towards a given situation or subject. They can include changes in sensitivity, satisfaction, influence, awareness, understanding, attitudes, quality, perception, dialogue or sense of well-being.

Qualitative indicators measure results in terms of:

1. Compliance with…
2. Quality of…
3. Extent of…
4. Level of …

Examples include "availability of a clear, strategic organizational mission statement" and "existence of a multi-year procurement plan for each product offered."

3.1.3 Importance of Indicators

Indicators provide M&E information crucial for decision-making at every level and stage of programme implementation.

- Indicators of programme**inputs** measure the specific resources that go into carrying out a project or programme (for example, *amount of funds allocated to the health sector annually*).

- Indicators of **outputs** measure the immediate results obtained by the programme (for example, *number of multivitamins distributed* or *number of staff trained*).

- Indicators of **outcomes** measure whether the outcome changed in the desired direction and whether this change signifies programme "success" (for example, *contraceptive prevalence rate* or *percentage of children 12-23 months who received DTP3 immunization by 12 months of age*).

Metrics

A metric is an important part of what comprises an indicator. The precise calculation or formula on which the indicator is based. Calculation of the metric establishes the indicator's objective value at a point in time. Even if the factor itself is subjective or qualitative, like the attitudes of a target population, the indicator metric calculates its value at a given time objectively.

For example, an indicator might measure the percentage of urban facilities that score 85-100% on a quality of care checklist. Note that because this indicator calls for a percentage, a fraction is required to calculate it. Possible metrics for this indicator are:

i. numerator, or top number of the fraction: number of urban facilities scoring 85-100% on a *quality of care checklist;* and

ii. denominator, or bottom number of the fraction: *total number of urban facilities checked and scored.*

Clarifying Indicators

In many cases, indicators need to be accompanied by clarifications of the terms used. For instance, let's look at the indicator: *number of antenatal care (ANC) provides trained.*

If such an indicator were used by a programme, definitions would need to be included. For example, *providers* would need to be defined, perhaps as *any clinician providing direct clinical services to clients seeking ANC at a public health facility*. For the purposes of this indicator then, *providers* would not include clinicians working in private facilities. *Trained* would also need to be defined, perhaps as *those staff who attended every day of a five-day training course and passed the final exam with a score of at least 85%.*

Another indicator for this programme could be the percentage of facilities with a provider trained in ANC.

In this example, because the indicator is a proportion or fraction, a numerator and a denominator are needed to calculate it.
The numerator would be the number of public facilities with a provider who attended the full five days of the ANC training and scored at least 85% on the final exam. Note that the numerator must still specify that the facilities are public and that the providers must have attended all five days and passed the exam   in order to be counted. This information need not be   included in the indicator itself as long as it is in the definitions that accompany it.

The denominator would be the total number of public facilities offering ANC services. This requires that this number be obtainable. If it is not known and it is not possible to gather such information, this percentage cannot be calculated.

In this example, it is also necessary to know at which facility each trained provider works. This information could be obtained at the time of the training. If it is not, all facilities would have to be asked if they have any providers who attended the training.

3.1.4 Characteristics of Indicators

A good indicator should:

1. Produce the same results when used repeatedly to measure the same condition or event;

2. Measure only the condition or event it is intended to measure;

3. Reflect changes in the state or condition over time;

4. Represent reasonable measurement costs; and

5. Be defined in clear and unambiguous terms.

Linking indicators to results frameworks
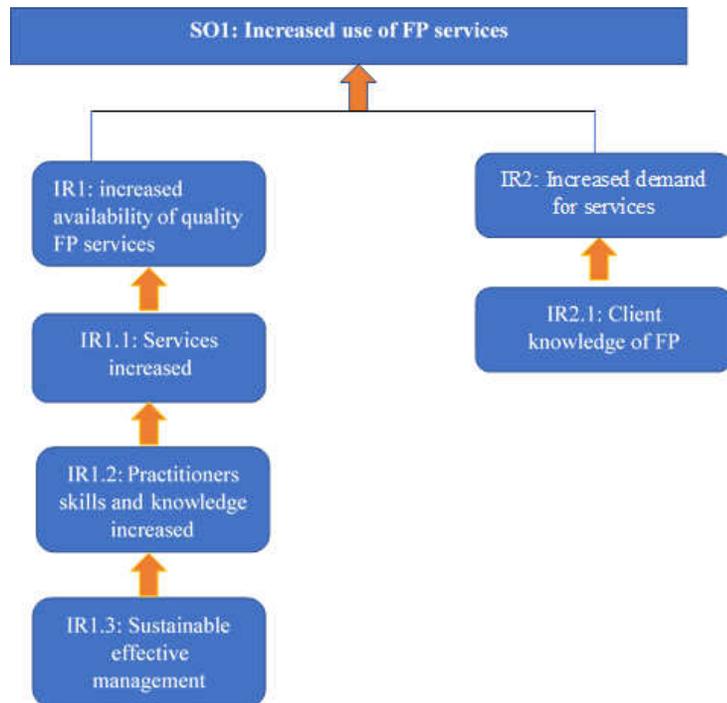
Let's use this generic results framework for a family-planning programme to demonstrate how indicators are linked to frameworks. For this programme, the strategic objective (SO) is to increase the use of family-planning services. There are two intermediate results (IRs) feeding into this objective.

i. Under the IR of increasing availability of quality services, there are three sub-intermediate results (sub-IRs): services increased, practitioners' skills and knowledge increased, and sustainable effective management.

ii. Under the other IR (increasing demand for services), the only sub-IR listed is to improve customer knowledge of family planning.
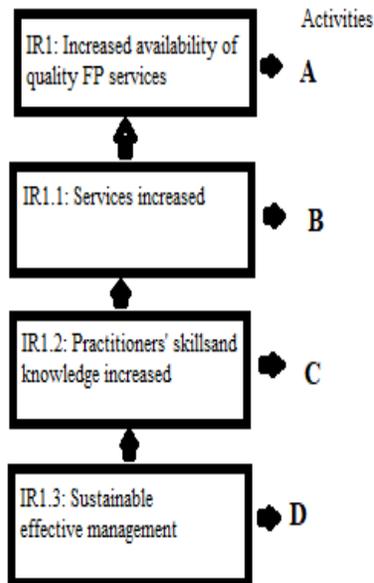
In order to develop indicators for this framework, the activities to be undertaken by the programme must first be recognized.

This portion of the results framework shows what activities are planned in order for the programme to achieve IR1 and its sub-IRs. These activities are:

    a. Provision of support and supplies to community-based distributors

    b. Expanding family-planning services to additional clinics

    c. Clinical training for providers

    d. The development of a checklist to monitor the quality of care

    e. Management Training forSupervisors
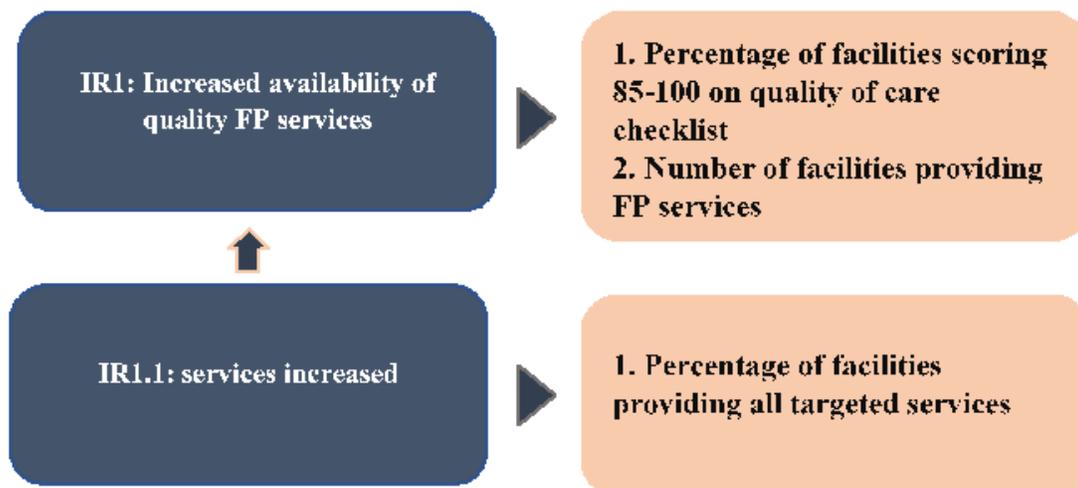
Note that some of these activities can affect several of the sub-IRs.

Next, indicators that measure these activities would be identified. Here you can see the indicators that are linked to the IR and sub-IR1. Other indicators would be linked to the other sub-IRs.

Although it is important to avoid assigning so many indicators that their measurement becomes unachievable, it is risky to rely on a single indicator to measure the significant effects of a project. If the data for that one indicator became unavailable for some reason, it would be difficult to document a significant impact on that result. Therefore, some diversification of indicators tends to strengthen M&E plans.

linking indicators to logic models
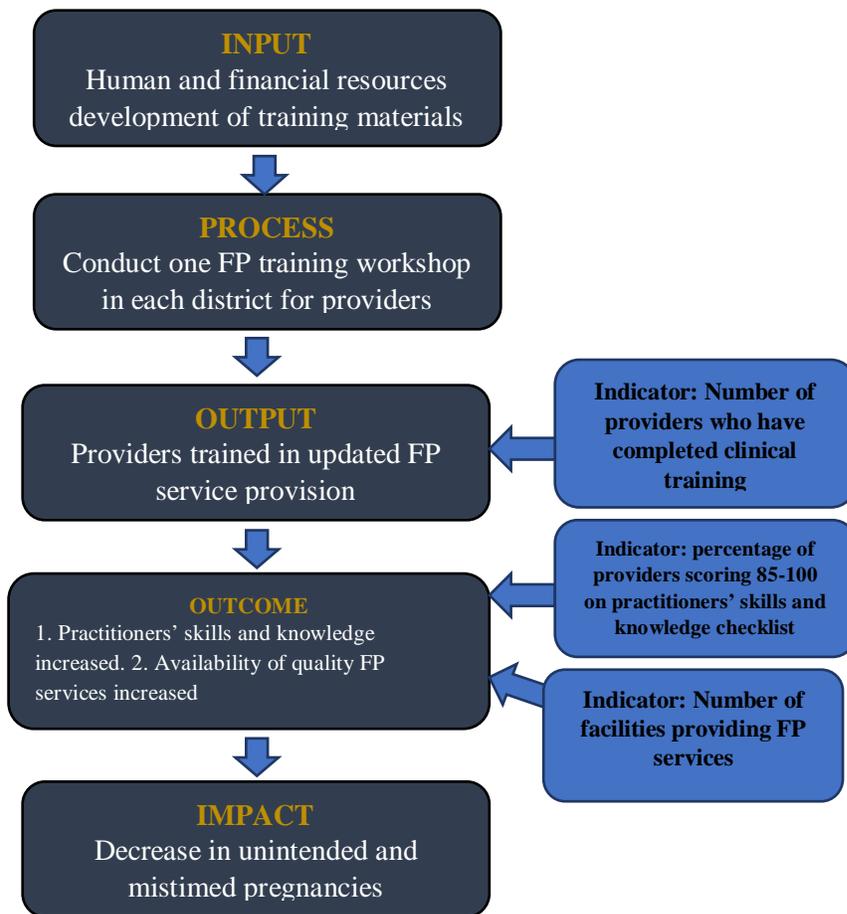
This example depicts how indicators are related to logic models. Here is a logic model for the same activity that was just depicted in the results framework.

Three indicators are linked with this activity:

i. *Number of providers who have completed clinical training* is linked to the output of having trained providers. This indicator can provide information about whether the programme is meeting its targets for training providers.

ii. *Percentage of providers scoring 85-100 on the practitioners' skills and knowledge checklist* relates to the intended outcome of improving the knowledge and skills of practitioners.

iii.   *Number of facilities providing family planning services* links to the intended outcome of increasing the availability of services. The assumption is that increasing the skills and knowledge of more providers will result in more facilities being able to   offer services.

3.1.5   Challenges to Selecting Indicators

1. Choosing an indicator that the programme activities cannot affect

For instance, imagine   a programme that planned to train health-care providers in AIDS prevention and treatment services in an effort to expand access to these services. The authors of the M&E plan selected the UNAIDS indicator *the proportion of health-care facilities with adequate conditions to provide care*. However, many elements can affect this indicator, such as supervision, availability of supplies and equipment, and the drafting of appropriate treatment protocols. None of these factors would be addressed by the planned training programme. In using this global indicator, the planners overlooked the fact that it did not accurately reflect their programme activities.

Better indicators would be *the number of clinicians trained* or *the number of facilities with a trained provider.*

2. Choosing an indicator that is too vague

For example, imagine a radio campaign aimed at dispelling specific myths about HIV/AIDS transmission. Although the goal of the campaign is ultimately to increase knowledge about HIV/AIDS, the indicator *percentage of the population with knowledge about HIV/AIDS* does not specify the exact area of knowledge in question.

A better indicator would be one that measured precisely the objective of the campaign: *percentage of the population not believing myths X and Y about HIV/AIDS transmission.*

3. Selecting an indicator that relies on unavailable data

For instance, a programme working on drug-supply issues selected an indicator that stated *percentage of days per quarter that service delivery points have stockouts of drugs*. However, information on stockouts may not be collected often   enough to provide this information.

A better indicator   would be the *percentage of service delivery points that experienced a stockout of drugs at some time during the last quarter*. Population-level data may also be unavailable or difficult to collect

4. Selecting an indicator that does not accurately represent the desired outcome

Examples 1:

For instance, if an IR states *expanded access to antiretroviral (ARV) treatment for pregnant women to prevent mother-to-child transmission (PMTCT) of HIV*, what would an appropriate indicator be?

Would the indicator *percentage of women on ARVs who are pregnant* be appropriate?

Answer:

No, this would not be an appropriate indicator because it tells us how many women are pregnant out of all women on ARVs, rather than how many HIV-positive pregnant women are on ARVs.

In other words, the numerator for this indicator is the number of women on ARVs who are pregnant, and the denominator is the number of women who are on ARVs. Let's say that there were 100 pregnant women on ARVs and a total of 400 women on ARVs. The percentage would be 100/400, which simplifies to 1/4 or 25%.

If the denominator increased, that is, if more non-pregnant women received treatment for HIV but the number of pregnant women receiving treatment stayed the same, the indicator would decrease. For instance, if 1000 women were on ARVs, the percentage would become 100/1000, which simplifies to 1/10 or 10%. The indicator would reflect this change, but this change is irrelevant to the desired outcome of the programme,which is increasing the number of pregnant women on ARVs.

Similarly, if the indicator increased, for instance, if the percentage of women on ARVs who were pregnant out of all women on ARVs went from 25% to 50%, this may be because more pregnant women received ARV treatment (the desired outcome) but it also could be because fewer non-pregnant women were on ARVs, which would not be related to the desired outcome of the programme. Because it is not clear which change occurred, this would not be a good indicator to use.

Example 2:

Would the indicator *percentage of people on ARVs who are pregnant women* be appropriate?

Answer:

No, this also would not be an appropriate indicator.

Here the numerator is the number of pregnant women on ARVs (let's say it is 100 again), and the denominator is the total number of people on ARVs, including all men and women and children receiving treatment (let's say it's 5,000). In other words, this indicator would tell us, of all the people on ARVs, the percentage who are pregnant women is 100/5000 or 1/50 or 2%.

If this indicator increased over time, say from 2% to 20%, it could be because more pregnant women were receiving ARV treatment (1000/5000, the desired effect of the

programme) but it could also be because fewer people overall were receiving this treatment (100/500) and the number of pregnant women receiving treatment did not actually change.

Similarly, if the indicator decreased, it might be because more people overall were receiving treatment, because fewer women were HIV-positive or because there were fewer pregnant women. So the information provided by this indicator would be difficult or impossible to interpret accurately.

Example 3:

Let's try one more example: Would the indicator *percentageof HIV-positive pregnant women who are on ARVs* be appropriate?

Answer:

   Yes, this indicator   would provide the needed information.

Here the numerator is the number of HIV-positive pregnant women who are on ARVs, and the denominator is the total number of HIV-positive pregnant women.

With this indicator, interpretation is not complicated by factors unrelated to the IR, such as a decrease in HIV prevalence among pregnant women or the number of non-pregnant women receiving ARVs.

4.0   CONCLUSION

Indicators should be consistent with international standards and other reporting requirements. Examples of internationally recognized standardized indicators include those developed by UNAIDS and those included in the UNDP Millennium Development Goals. Indicators should be **independent**, meaning that they are non-directional and can vary in any direction. For instance, an indicator should measure the number of clients

receiving counselling rather than an increase in the number of clients receiving counselling. Similarly, the contraceptive prevalence rate should be measured, rather than the decrease in contraceptive prevalence.

5.0   SUMMARY

Indicator values should be easy to interpret and explain, **timely**, **precise**, **valid** and **reliable**. They should also be **comparable** across relevant population groups, geography, and other programme factors.

6.0   ONLINE DISCUSSION AND ASSIGNMENT

1. Explain challenges to selecting indicators.
2. Mention a programme and state an indicator for the programme/project/service

6.1.1 SELF ASSESSMENT

1. Discuss steps in developing appropriate indicators for a project/programme

7.0   REFERENCES/FURTHER READING

Frankel N & Gage A (2007). M&E Fundamentals: A Self-Guided Minicourse. U.S. Agency for International Development (USAID)

Family Health International (FHI) (2011). Core Module1: Monitoring HIV/AIDS Programme: A Facilitator's Training Guide. USAID Resource for Prevention, Care and Treatment.

International Federation of Red Cross and Red Crescent Societies (2002). Handbook for Monitoring and Evaluation. 1st edition. Switzerland

School of Geography and Environment (2014). A step by step guide to monitoring and evaluation. Higher Education Innovation Fund at the University of Oxford. Retrieved from:

(http://www.geog.ox.ac.uk/research/technologies/projects/monitoringandev
aluation.html)

UNIT 5   DATA SOURCES IN MONITORING AND EVALUATION

CONTENTS

1.0   INTRODUCTION

2.0   OBJECTIVES

3.0   MAIN CONTENTS

      3.1.1   Data Source

      3.1.2   Types of Data

      3.1.3   Data Collection

      3.1.4   Data Quality

      3.1.5   Data Use

4.0   CONCLUSION

5.0   SUMMARY

6.0   ONLINE DISCUSSION AND ASSIGNMENT

7.0   REFERENCES/FURTHER READING

1.0   INTRODUCTION

The analytical process and data used for planning provides initial opportunities and insights to discern future monitoring and evaluation requirements in comparison to existing data sources and quality. This unit discusses data source, data quality and data use

2.0   OBJECTIVES

At the end of this learner should be able to:

- Describe data source and types of data sources
- Identify situations that calls for monitoring and   evaluation

3.0   MAIN CONTENTS

3.1.1 Data Sources

Data sourcesare the resources used to obtain data for M&E activities. There are several levels from which data can come, including client, programme, service environment, population, and geographic levels. Regardless of level, data are commonly divided into two general categories: routine and nonroutine.

3.1.2 Types of Data Sources

Routine Data Sources provide data that are collected on a continuous basis, such as information that clinics collect on the patients utilizing their services. Although these data are collected continuously, processing them and reporting on them usually occur only periodically, for instance, aggregated monthly and reported quarterly.

1. Examples of routine data are:
    i.   Vital registration records
    ii.   Clinical service statistics
    iii.   Demographic surveillance

2. Data collection from routine sources is useful because it can provide information on a timely basis. For instance, it can be used effectively to detect and correct problems in service delivery.

3. However, it can be difficult to obtain accurate estimates of catchment areas or target populations through this method, and the quality of the data may be poor because of inaccurate record keeping or incomplete reporting.

Non-routine data sources provide data that are collected on a periodic basis, usually annually or less frequently.

1. Examples of non-routine data sources are:

    i.   Household surveys such as DHS

    ii.   National censuses

    iii.   Facility   surveys

2. Depending on   the source, nonroutine data can avoid the problem of incorrectly estimating the target population when calculating coverage indicators. This is particularly the case with representative population-based surveys, such as a Demographic Health Survey (DHS).

3. Non-routine data have two main limitations: collecting them is often expensive, and this collection is done on an irregular basis. In order to make informed programme decisions, programme managers usually need to receive data at more frequent intervals than non-routine data can accommodate.

Data from different sources can be used to calculate the same indicator, although changes to the metric may be necessary. This illustration depicts one way that routine and non-routine data can be used together to provide for an effective M&E system.

For example, when calculating the coverage rate for the first dose of a diphtheria-tetanus-pertussis (DTP) vaccine:

If *population-based survey* data are used, the definition could be the *proportion of children age 12-23 months who were immunized with the first dose of DTP vaccine before age 12 months*.

    i.   numerator: *Number of children age 12-23 months who were immunized with the firstdose of DTP vaccine before age 12 months*

    ii.   denominator: *Total number of children age 12-23 months surveyed*

If a *routine data source* is used, such as service statistics (e.g. clinic records, outreach records, etc.), the definition could be *proportion of infants 0-11 months of age in a specified calendar year who were immunized with the first dose of DTP vaccine in that calendar year*.

i. numerator: *Number immunized by age 12 months with the first dose of DTP vaccine in a given year*

ii. denominator: *Total number of surviving infants less than 12 months of age in the same year*

3.1.3 Data Collection

The M&E plan should include a data collection plan that summarizes information about the data sources needed to monitor and/or evaluate the programme. The plan should include information for each data source, such as:

1. the timing and frequency of collection;
2. the person or agency responsible for the collection;
3. the information needed for the indicators; and
4. any additional information that will be obtained from the source.

3.1.4 Data Quality

Throughout the data collection process, it is essential that data quality be monitored and maintained. It is important to considerdata quality when determining the usefulness of various data sources; the data collected are most useful when they are of the highest quality.

It is important to use the highest quality data that are obtainable, but this often requires a trade-off with what is feasible to obtain. The highest quality data are usually obtained

through the triangulation of data from several sources. It is also important to remember that behavioural and motivational factors on the part of the people collecting and analysing the data can affect data quality.

Some types of errors or biases common in data collection include:

1. *Sampling bias*: occurs when the sample taken to represent the population of interest is not a representative sample;
2. *Non-sampling error*: all other kinds of mismeasurement, such as courtesy bias, incomplete records, incorrect questionnaires, interviewer errors, or non-response rates; and
3. *Subjective measurement*: occurs when the data are influenced by the measurer.

Some data quality issues to consider are:

a. *Coverage:* Will the data cover all of the elementsof interest?
b. *Completeness:* Is there a complete set of data for each element of interest?
c. *Accuracy:* Have the instruments been tested to ensure validity and reliability of the data?
d. *Frequency:* Are the data collected as frequently as needed?
e. *Reporting Schedule:* Do the available data reflect the time periods of interest?
f. *Accessibility:* Are the data needed collectable or retrievable?
g. *Power:* Is the sample size big enough to provide a stable estimate or detect change?

3.1.5 Data Use

The term data refers to raw, unprocessed information while information, or strategic information, usually refers to processed data or data presented in some sort of context.

Collecting data is only meaningful and worthwhile if it is subsequently used for evidence-based decision-making. Useful information are based on quality data, and be communicated effectively to policymakers and other interested stakeholders.

M&E data need to be manageable, timely, reliable, and specific to the activities in question. Also, the results need to be well understood. The key to effective data use involves linking the data to the decisions that need to be made and to those making these decisions. The decision-maker needs to be aware of relevant information in order to make informed decisions.

For example, if sales data from a programme to provide insecticide-treated bed nets show that the programme is successfully increasing bednet distribution, the decision-maker may decide to maintain the programme. Alternatively, the data may prompt the implementation of a new distribution system and could spur additional research to test the effectiveness of this new strategy compared to the existing one. When decision-makers understand the kinds of information that can be used to inform decisions and improve results, they are more likely to seek out and usethe information.

4.0   CONCLUSION

It is important to collect only the data that is intended to be used as performance information is a management tool— and there is no need to collect information that managers are not going to use. "As a rule of thumb, it is advisable to only collect baseline information that relates directly to the performance questions and indicators that have been identified. Do not spend time collecting other information"

5.0   SUMMARY

In this unit you have learnt:

- Data source

- Data collection

- Data quality

- Data use

6.0   EVALUATIONS

6.1.1 ONLINE DISCUSSION AND ASSIGNMENT

List and discuss data collection tools for the different typesof data source. Comment on at least two previous responses from your colleague

6.1.2 SELF ASSESSMENT

Do a critical evaluation of the data collected from patient at first contact/ admission, highlight five (5) reasons for each data collected. Provide optional source of the data you collect and Justify which better way to enhance the quality of the data.

7.0   REFERENCES/FURTHER READING

Frankel N & Gage A (2007). M&E Fundamentals: A Self-Guided Minicourse. U.S. Agency for International Development (USAID)

Family Health International (FHI) (2011). Core Module1: Monitoring HIV/AIDS Programme: A Facilitator's Training Guide. USAID Resource for Prevention, Care and Treatment.

International Federation of Red Cross and Red Crescent Societies (2002). Handbook for Monitoring and Evaluation. 1st edition. Switzerland

School of Geography and Environment (2014). A step by step guide to monitoring and

evaluation. Higher Education Innovation Fund at the University of Oxford.

Retrieved from:

(http://www.geog.ox.ac.uk/research/technologies/projects/monitoringandevaluatio
n.html)

UNIT 6 FIELD VISITS, REPORTS AND EVALUATION FINDINGS
CONTENTS

1.0   INTRODUCTION

2.0   OBJECTIVES

3.0   MAIN CONTENTS

        3.1.1 Field visits

        3.1.2 Annual Project Report (APR)

        3.1.3 Content, format and preparation of the APR

        3.1.4 Use of the APR

        3.1.5 Guidance for monitoring and evaluation report writing

4.0   CONCLUSION

5.0   SUMMARY

6.0   ONLINE DISCUSSION AND ASSIGNMENT

7.0   REFERENCES/FURTHER READING

1.0   INTRODUCTION

Regular corporate reporting and evaluation findings and recommendations, it provides guidance and makes decisions on subsequent strategic programme planning.

2.0   OBJECTIVES

At the end of this unit, learners should be able to:

- Describefield visit and the purpose of field visit in monitoring and evaluation
- Discuss Annual Project Report

3.0   MAIN CONTENTS

3.1.1 Field Visits

Field visits are essential for any field-based project. Field visits should be planned well in order to be of maximum use. The following considerations may helpplan an effective field visit.

i.   **What is the purpose of the visit in terms of monitoring?***Field visits serve the purpose of validation*. They validate the results reported by programme and projects. They are of particular importance to large, key programme and projects that are essential for outcomes. They involve an assessment of progress, results and problems and may also include visits to the project management or directorate.

ii. *Timing*—A field visit may take place at any time of the year. If undertaken in the first half of the year, just after the annual review, it may be oriented towards the validation of results. If undertaken in the latter part of the year, the field visit should provide the latest information on progress towards annual and outcome review processes. The reports of field visits should be action-oriented and brief, submitted within a week of return to the office to the members of the respective Project Board, Programme Board and the Outcome Group for consideration and appropriated action if required.

iii. *Who should participate and be involved?* —Visits are increasingly joint monitoring efforts of several partners working on a cluster of programme and projects targeting an outcome or result. Joint visits also support ownership of the results. A team of staff from one or more partners may make visits to projects that are contributing to one particular outcome or in a specific geographical area addressing a specific development condition, for example, displaced persons, post-

natural disaster or a vulnerable community. Such joint efforts are often an efficient way to obtain a comprehensive overview of progress.In planning such visits, it is important to focus on what specific issues are to be addressed and to ensure that relevant national partners and beneficiaries would be available, involved and participate as required.

iv. *Dialogue and consultations*—The emphasis should be on observing and ascertaining credible information on progress being made towards the attainment of results—outputs and outcomes—as well as their quality and sustainability. Those undertaking the field visit should discern other initiatives, for example, soft assistance or gaps in strategy that may need to be addressed. Field visits should not be used for lengthy discussions on detailed implementation issues. Such issues, if raised during field visits, may be noted for discussion with relevant partners who can resolve them.

3.1.2 Annual Project Report (APR)

The APR is a self-assessment by the project management that serves as the basis for assessing the performance of programme and projects in terms of their contributions to intended outcomes through outputs. The APR should provide an accurate update on project results, identify major constraints and propose future directions. As a self-assessment report by project management to the country office, it can be used to spur dialogue with partners.

3.1.3 Content, format and preparation of the APR

The APR is a report from the project to other stakeholders through the board or steering committee. APRs should be objective and may reflect views not agreed to by all stakeholders. The APR should be brief and contain the basic minimum elements required

for the assessment of results, major problems and proposed actions. These elements include:

i. An analysis of project performance over the reporting period, including outputs produced and, where possible, information on the status of the outcome

ii. Constraints in progress towards results, that is, issues, risks and reasons behind the constraints

iii. Lessons learned and indications of how these will be incorporated

iv. Clear recommendations for the future approach to addressing the main challenges

Beyond the minimum content, additional elements may be added as required by the project management or other partners. In the spirit of the principles of harmonization and simplification, the partners should agree on harmonized reporting formats (to the extent possible) to eliminate multiple reports and minimize work. From a monitoring perspective, it is critical for the APR to flow from the annual work plan (AWP) and for it to serve the objectives of the overall M&E framework and hence the achievement of the planned results.

The project management is responsible for preparing and circulating the APR. The APR is prepared by project staff with specific attention to outputs and is considered by donors, other partners and stakeholders. Since project staff members are often experts in their fields, monitoring at the project level may also entail some expert assessment of the status of progress towards the achievement of the outcome. The person responsible for project assurance should review and make observations on the validity, reliability and quality of monitoring data collected and compiled by the project.

3.1.4 Use of the APR

The APR is part of oversight and monitoring of projects and a key building block of the annual review. Normally, it also feeds into the annual reporting by donor partners on the results that they support. Once the APR has been prepared and distributed, the next step is to hold consultations, which may take place at the project board or steering committee, or through written observations from partners. Depending on its content and approach, the APR can be used for the following:

1. Performance Assessment—When using mechanisms such as outcome boards, groups or steering committees to review project performance, the APR may provide a basis for consensus-building and joint decision making on recommendations for future courses of action. Key elements of the APR are fed into higher levels of reviews, for example, the United Nations Development Assistance Framework (UNDAF) annual review, sectoral reviews and reviews of national development results and plans. The APR should be used as a basis for feedback on project performance.

2. Learning—The APR should provide information on what went right or what went wrong, and the factors contributing to success or failure. This should feed into the annual review, learning and practitioners' networks, repositories of knowledge and evaluations. It is recommended that the APR of the final year of the project include specific sections on lessons learned and planning for sustainability (exit strategy). APRs may address the main lessons learned in terms of best and worst practices, the likelihood of success, and recommendations for follow-up actions where necessary.

APRs may also be used to share results and problems. with beneficiaries, partners and stakeholders and to solicit their feedback.

3. Decision making—The partners may use the APR for planning future actions and implementation strategies, tracking progress in achieving outputs, approaching 'soft assistance', and developing partnerships and alliances. The APR allows the project board, steering committee and partners to seek solutions to the major constraints to the achievement of the planned results. As a result of this consultative process, necessary modifications could be made to the overall project design and to the corresponding overall results frameworks in the planning documents.

3.1.5 Guidance for Monitoring and Evaluation Report Writing

1. Be as **short as possible**, consistent with the amount of information to be presented.

2. Focus on **results** being achieved as defined in the framework or defined in the objectives and link the use of resources allocated to their delivery and use.

3. Be clear on who your **audience** is and ensure that the information is meaningful and useful to the intended reader.

4. Write in **plain language** that can be understood by the target audience.

5. Ensure **timely submission** of progress reports. Even if incomplete in certain aspects or component coverage, it is better to circulate key results in other areas rather than wait for the complete picture.

6. Provide a **brief summary** (1 page) at the beginning.

7. Be consistent in your use of **terminology, definitions** and descriptions of partners, activities   and places.

8. Present complex   data with the help of **figures, summary tables, maps, photographs, and graphs**.

9. Only highlight the most significant **key points or words** (using bold, italics or other stresses).

10. Include **references** for sources and authorities.

11. Include a **table of contents** for reports over 5 pages in length

4.0   Conclusion

The most common tools and events used for systematic monitoring, data gathering and reporting applicable to projects used by partners are AWPs, field visits and Annual Project Reports (APRs). Monitoring of outcomes typically requires a different mix of tools than those traditionally used at the project level. Instruments such as project visits or bilateral meetings may be insufficient because the scope of a given project is too narrow or the range of partners involved is too limited. Instead, more useful tools may include reviews by outcome groups, analyses and surveys.

5.0   SUMMARY

In this unit you have learnt:

- Field visit
- Annual project report

6.0   ONLINE DISCUSSION AND ASSIGNMENT

Discuss data collection tools for the differenttypes of data source

6.1.1 SELF ASSESSMENT

Write a comprehensive essay on the importance of field visit to M&E

7.0   REFERENCES/FURTHER READING

Frankel N & Gage A (2007). M&E Fundamentals: A Self-Guided Minicourse. U.S. Agency for International Development (USAID)

Family Health International (FHI) (2011). Core Module1: Monitoring HIV/AIDS Programme: A Facilitator's Training Guide. USAID Resource for Prevention, Care and Treatment.

International Federation of Red Cross and Red Crescent Societies (2002). Handbook for Monitoring and Evaluation. 1st edition. Switzerland

School of Geography and Environment (2014). A step by step guide to monitoring and evaluation. Higher Education Innovation Fund at the University of Oxford. Retrieved from: (http://www.geog.ox.ac.uk/research/technologies/projects/monitoringandevaluation.html)