Primary Health Care Management Advancement Programme

SURVEILLANCE OF MORBIDITY AND MORTALITY

MODULE 4
FACILITATOR'S GUIDE

Dedicated to
Dr. Duane L. Smith (1939-1992),
Dr. William B. Steeler (1948-1992)
and all other health leaders, managers and workers
who follow their example in the effort to bring quality health care to all in need.

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Contents

Foreword

What is the purpose of the Facilitator's guide?

The Facilitator's guide contains a suggested workshop design for use by individuals who will help PHC managers and staff learn how to use the Primary Health Care Management Advancement Programme (PHC MAP) series. There is a Facilitator's guide for each module in the PHC MAP series.

What information does it contain?

Each Facilitator's guide contains instructions for conducting a workshop on one of the modules in the PHC MAP series using the information contained in the User's guide.

The instructions are arranged in one to two hour sessions. The number of sessions depends on the amount of information and/or the number of steps contained in the User's guide. The first page of each session lists session objectives, major topic headings, time required, and materials and equipment. The following pages describe the instructional activities in outline form.

The outline is divided into two columns. The right-hand column indicates what the facilitator says or does to conduct the session. The left-hand column lists the handouts, overhead transparencies, or other materials needed to support the activity. Copies of these materials, suitable for duplication, appear at the end of the session in which they are first used. Some transparencies are used in more than one session.

How are the workshops organised?

The first session of each workshop contains activities designed to introduce the PHC MAP series and explain its importance to PHC programmes, present an overview of the workshop, explain the purpose of the module, review specific terms or concepts used in the module, and acquaint the participants with the organisation and content of the User's guide.

The final session of each workshop contains activities designed to review key points of the User's guide, if appropriate, help participants prepare an action plan, and brings the workshop to a formal conclusion. The sessions in between present the steps required to accomplish the purpose of the module and provide an opportunity for participants to apply those steps to their own programmes.

Each workshop is designed to be given on consecutive days, uninterrupted except for breaks, meals, and rest, if the workshop is longer than one day. It is recognised, however, that situations vary and the PHC MAP modules will be used singly or in combination by individuals and organisations in the field and on university campuses. Therefore, it is expected that the workshops described in the Facilitator's guides will be adapted to fit a range of circumstances. Indeed, those who facilitate PHC MAP workshops are encouraged to make adaptations to meet the needs of participants and/or specific PHC programmes.

Who can be a facilitator?

Ideally, the person who serves as facilitator has training and experience in the fields of public health, management, planning, and evaluation, as well as sampling and survey design. It is recommended that this person also be skilful in working with small groups.

The facilitator should be someone from outside the PHC programme, perhaps from another agency or a university. As a person with no direct interest in the programme, the facilitator can be neutral in disagreements that may arise and help the group members resolve an issue objectively. Having an outside person as facilitator also allows the programme director, who usually has a leadership role, to contribute his or her knowledge and experience as a full participant in the work of the group.

It is also recommended that a facilitator have a full set of PHC MAP User's guides and Facilitator's guides. It is sometimes necessary, in the course of completing one module, to refer to information in another module.

Who should participate in the workshop?

The primary audience for the PHC MAP series is the team that manages PHC programmes or other population-based health programmes in either the public or private sector. An example of a PHC management team in the public sector is the core staff of a district ranging from 100,000 to 300,000 in size of population served.

An example of a PHC management team in the private sector is the core staff of an NGO that provides PHC services to a specific population in a given geographic area. The average size of the service population may range from 40,000 to 60,000, but may be as small as 10,000 or more than 100,000. In either case, the management team should have:

- the knowledge and skills needed to complete the steps in the module
- the time and resources required to collect and analyse the required data
- the authority to plan and implement improvements in management systems and procedures based on this analysis.

If feasible, teams from several districts or from several PHC programmes within a given NGO, may work simultaneously with one facilitator to complete a module. It is recommended that one facilitator work with no more than four teams or 20 people at one time.

What does the facilitator do?

Understands the needs of participants. If the facilitator is working with one PHC programme, the most efficient way to gather information about participants and the programme in which they work is to meet with the PHC director to determine:

- the nature of the PHC programme (services provided, size and description of area served, number and type of facilities, number and qualifications of staff, community involvement, computer capability, strengths, major problems, etc.)
- if information needs have been clearly identified
- previous staff training in management information systems or related topics
- resources available for training (time, space, equipment)
- possibility for subsequent technical assistance to workshop participants.

Understands the content of Module 1. Read the User's guide and Facilitator's guide for Module 1 and consider options for workshop delivery.

- The purpose of Module 1 is to help participants select priority information needs and to review some basic concepts underlying management information systems. Depending on participant background, the amount of time available, and the need to establish priorities among management information needs, Module 1 can be presented in its entirety, limited to Level 1: Quick start, limited to the PHC MAP systems framework, or in summary form as contained in the first session of the Facilitator's guides for Modules 2 through 9.

- If information needs have not been clearly identified and participants have no background in systems, then Module 1 should be presented in full. The selection of the next module will depend upon priorities set by the participants as they complete the steps in Module 1.
- If information needs have been clearly identified and participants have no background in systems, then that portion of Module 1 can be added to the first session of the selected module.
- If information needs have been clearly identified and participants have a background in systems, then the overview of PHC MAP in the selected module will be sufficient.

Understands the content of the selected module. Read the User's guide and Facilitator's guide for the selected module and consider options for workshop delivery.

- Depending upon the length of the module and the availability of staff for training, the workshop sessions may be presented as described in the Facilitator's guide, or workshop sessions may be delivered at intervals (for example, every morning for a certain number of days, one session per week, or one day per week for three or four weeks).
- If follow-on technical assistance is available, the content of the module could be presented in the workshop and the application of the procedure to the PHC programme could be conducted on the job.
- Participants could plan steps in the workshop, complete them on the job, and bring the results to the next workshop session. This approach is particularly applicable to Module 2 which requires development of a questionnaire, selection of a survey sample, training of data collectors, and data collection. These steps cannot actually be carried out within the time limits of the workshop as contained in the Module 2 Facilitator's guide.
- Other options are possible depending upon the circumstances of each situation.

Determines what programme information, if any, is needed for completion of the module. For example, census data and lists of households are required to complete some of the steps in Module 3.

Determines the most appropriate people to attend the workshop. For example, Module 7 is best completed by those responsible for planning, training, supervision, logistics, and other management services.

Discusses the delivery options and participants with the PHC manager and make decisions regarding the most appropriate option and participant selection. Also determines if the needed information is available and if it is not, the alternatives for obtaining the information.

Notifies participants of the date, time, and purpose of the workshop and confirms attendance. Initial notice of the meeting may come from the PHC manager, with follow-up by the facilitator.

Prepares the agenda, using as a model the sample in Session 1 of the Facilitator's guide for the selected module.

Inspects the room where the workshop will be held and answers these questions:

- Is the room large enough to seat all the participants?
- Can chairs and tables be arranged in a variety of ways; all participants around one table; participants in groups of three or four at smaller tables?
- Is the lighting adequate?
- Can temperature and humidity be controlled?
- Is there an electrical outlet for an overhead projector?
- Is a microphone necessary for everyone to hear and to be heard?
- Are toilets conveniently located?
- Is the site convenient to parking, restaurants and public transportation?
- Are supporting facilities available and convenient: duplication, word processing, computers?

Prepares notes to conduct the workshop using the session outlines in the Facilitator's guide for the selected module, and makes the necessary adaptations. Refer to the appropriate User's guide for content.

Duplicates the worksheets and other handouts as indicated in the Facilitator's guide and obtains the necessary equipment.

Conducts the workshop as planned.

Provides follow-on assistance, if appropriate.

Session 1: Introduction and overview

Objectives:

Participants will be able to:

- Explain the purpose of Module 4.
- Define surveillance as used in Module 4.
- Name at least two purposes of surveillance.
- Distinguish between quantitative and qualitative surveillance.
- Explain how surveillance data contribute to PHC programme planning.

Session outline:

I. Introduction (30 minutes)
II. Overview of workshop (10 minutes)
III. Purpose of Module 4 (10 minutes)
IV. Module 4 User's guide (10 minutes)
V. Definitions, purposes and principles (30 minutes)

Materials:

Module 4 User's guide

Handout 4-1:	Sample Agenda
Transparency 4-1:	Workshop objective
Transparency 4-2:	Surveillance
Transparency 4-3:	Limitations of surveillance
Transparency 4-4:	Surveillance methods
Transparency 4-5:	Steps in setting up a surveillance system

Equipment:

Flip chart, stand, markers, masking tape, overhead projector and screen

Session 1: Introduction and overview

I. Introduction (30 minutes)

***Note:** Omit Section I if you have presented Module 1, or some other module, immediately prior to the presentation of Module 4*

A. OPENING REMARKS

- **Introduce** self and other staff, as necessary.
- **Explain** your role in the workshop.
- If you do not know the participants, **ask** each one to state his or her name, position title, and job location.

Name tags
or place cards

***Note**: If the group is larger than 6 or 8, you may wish to have them wear name tags or place cards with their names at places where they are sitting.*

Flip chart

- **Ask** each participant to complete this sentence: "As a result of attending this workshop, I expect . . ." and write their responses on the flip chart.
- **When** all responses have been recorded, say that you will return to this list after giving an overview of the workshop.

B. OVERVIEW OF PHC MAP

- **Explain** why information is important or PHC programmes.
- **Summarise** PHC MAP programme, including:
  Purpose of PHC MAP
  Title and purpose of each module and other materials.
- **Make** the following points about PHC MAP:
  Has been field tested and revised toensure use fulness to PHC programme staff.

Session 1: Introduction and overview

Modules can be used in any sequence.

Materials can, and should, be adapted to fit a particular situation.

The procedures outlined in the modules can be adopted as routine monitoring activities in a PHC programme.

- **Explain** why MAP is being introduced in this PHC programme.

Note: *The specific programme and should provide the answers to these questions:*

Why are we doing this workshop?

What do we expect to achieve?

It may be appropriate for the PHC manager to make these remarks.

II. Overview of workshop (10 minutes)

Transparency 4-1: Workshop objective

Handout 4-1: Sample agenda

- **Review** the workshop objectives.
- **Distribute** and **review** the workshop agenda, describing the activities that will take place to accomplishthe workshop objectives.
- **Review** the expectations contributed by particippants at the beginning of the session.

  Indicate which ones will be met and which ones will not and why.

  Suggest, if possible, alternatives for meeting expectations that will not be met in this workshop.
- **Ask** for questions or comments.

Session 1: Introduction and overview

III. Purpose of module 4 (10 minutes)

- **Explain** that the purpose of Module 4 is to help PHC programme staff set up and operate a local surveillance system, using simple and inexpensive tools.
- **Discuss** the value of collecting surveillance data and how it relates to other modules in the PHC MAP series.

IV. Module 4 User's guide (10 minutes)

Module 4 User's guide

- **Distribute** a User's guide to each participant.
- **Highlight** key sections of the User's guide.

  Quick start, with a computer programme.

  Introduction to surveillance principles.

  Step-by-step directions for designing and operating a surveillance system.

  Appendices containing blank worksheets and other reference material that will be used in the workshop.

  References, glossary and list of acronyms and abbreviations.

V. Definitions, purposes and principles (30 minutes)

Transparency 4-2: Surveillance

- **Define** surveillance and **discuss** its purposes in PHC programmes.

  Distinguish between quantitative and qualitative surveillance.

  Stress the importance of collecting only necessary data.

Module 4. User's guide, page 3

  Refer participants to the example in the User's guide, **discuss** the example, and **ask** them if the data represented are the result of quantitative or qualitative surveillance.

Session 1: Introduction and overview

Transparency 4-3: Limitations of surveillance

Discuss some limitations of surveillance.

- **Discuss** the principles of an effective surveillance system as participants follow along in their User's guide.

Transparency 4-4: Surveillance methods

- **Explain** the four surveillance methods recommended in this module, and the advantages and disadvantages of each.

Transparency 4-5: Steps in setting up a surveillance system

- **Review** briefly the steps in Module 4, including expected outcomes.
- **Ask** for questions or comments on the definitions and principles, the module as a whole, and the workshop itself.

SAMPLE
AGENDA MODULE 4*

Session 1 (1 hr, 30 mins)	Introduction and overview
Session 2 (1 hr, 45 mins)	Specify objectives and define surveillance data (Steps 1 & 2)
Session 3 (1 hr, 20 mins)	Speficy surveillance methods and data collection procedures (Step 3 & 4)
Session 4 (1 hr, 40 mins)	Collect, report and analyse the data (Step 5 & 6)
Session 5 (1 hr, 20 mins)	Investigate causation (Optional) (Steps 7)
Session 6: (1 hr, 20 mins)	Develop an action plan and present reports (Step 8 & 9)

*For an actual presentation, substitute the appropriate clock hours in the first column.

WORKSHOP OBJECTIVE

Design and operate a surveillance system using the principles, steps and materials contained in Module 4

SURVEILLANCE

Surveillance of morbidity and mortality is the collection and analysis of selected health and vital events to:

- identify, investigate, control epidemics
- identify populations at risk
- confirm disease control priorities
- evaluate input of activities on incidence and prevalence
- monitor trends

LIMITATIONS OF SURVEILLANCE

- Labour intensive activity
- Tabulation and analysis are time consuming
- Limited to a few key indicators
- Several years of data collection is necessary to identify trends
- Difficult to assess impact if population is small, or if no control group
- Reporting of surveillance data is often incomplete

SURVEILLANCE METHODS

- Routine reporting system
- Sentinel reporting system
- Surveys and special studies
- Case or outbreak investigation
- Vital registration systems
- Census

STEPS IN SETTING UP A SURVEILLANCE SYSTEM

Step 1: Specify objectives

Step 2: Define data to collect

Step 3: Specify method(s)

Step 4: Develop data collection and reporting procedures

Step 5: Collect and report data

Step 6: Analyse data

Step 7: Investigate causation (optional)

Step 8: Develop an action plan

Step 9: Prepare and present reports

Session 2: Specify objectives and define surveillance data (Steps 1 and 2)

Objectives:

Participants will be able to follow the directions in the Module 4 User's guide to:

- Specify the purpose, scope, and time period of the surveillance; the users of the surveillance information; the target group; the type and frequency of surveillance.
- Determine what data the system will collect, how frequently, from which source, and using which procedure.

Session outline:

I. Introduction (5 minutes)
II. Specify the objectives of the surveillance (40 mintes)
III. Define the surveillance data to collect (60 minutes)

Materials:

Module 4 User's guide

Transparency 4-6:	Session 2: Objectives
Transparency 4-7:	Information for surveillance objectives
Transparency 4-8:	Sources of possible indicators
Handout 4-2:	Worksheet for specifying objectives
Handout 4-3:	Worksheet for specifying surveillance procedures

Equipment: Flip chart, stand, markers, masking tape, overhead projector and screen

Session 2: Specify objectives and define surveillance data (Steps 1 and 2)

I. Introduction (5 minutes)

Transparency 4-6:
Session 2: Objectives

- **Review** the session objectives.
- **Describe** briefly the session activities.

II. Specify the objectives of the surveillance (40 minutes)

- **Explain** that the purpose of this step is to decide on and record the objectives of the surveillance system.
- **Refer** participants to the completed Worksheets A and B, pages 20-21 from Module 1 (if done) to review their overall information needs.

Note: *If Module 1 has not been completed, decide now as a group what the overall information needs are for the PHC programme.*

- **Remind** participants that what they choose to monitor should be based on overall programme goals, but will not be able to cover everything.

Handout 4-2: Worksheet for specifying objectives

- **Review** and **discuss** the categories of information needed to formulate specific surveillance objectives.

Transparency 4-7:
Information for surveillance objectives

- **Distribute** the worksheet and **direct** participants to complete it in small groups for their catchment area. **Refer** participants to the sample completed worksheet on page 11, Module 4 for guidance as needed.

Note: *Groups of 4-5 participants are recommended if the group is large to increase opportunity for individual participation. If more than one PHC is represented, groups should be formed on the basis of programme.*

Session 2: Specify objectives and define surveillance data (Steps 1 and 2)

- **Facilitate** discussion of the completed worksheet.

  Ask a spokesperson from one group to report the items checked for purpose with supporting arguments.

  Invite other groups to report on differences and help participants reach consensus on any differences.

  Repeat 1 and 2 for other sections of the worksheet.
- **Ask** for questions and comments.

III. Define the surveillance data to collect (60 minutes)

- **Explain** that this step will help determine precisely which data the surveillance system will collect, how frequently, from which source, and using which procedure.

Handout 4-3:
Worksheet for specifying surveillance methods

- **Distribute** the worksheet and **explain** each section as the participants (working in groups assigned in II above) complete the first three columns on the worksheet. **State** that the second part of the worksheet will be completed in Step 3.
- **Direct** participants to enter target groups identified in Step 1 in the first column.
- **Discuss** considerations for completing column 2:

  Mortality

  Cause of death

  Refer participants to Table 3 on page 22 for causes that can be determined by interview.

  Review verbal autopsy approach in Appendix E.

Session 2: Specify objectives and define surveillance data (Steps 1 and 2)

Review Appendix D for a discussion of feasibility of determining cause of maternal and childhood deaths.

Morbidity

Refer participants to Table 2, page 19, for a list of priority diseases.

Refer participants to Appendix B for more detailed information.

Cause of disease

How much information should be collected?

Transparency 4-8: Sources of possible indicators

- **Suggest** sources for specifying indicators which are entered in the first column.
- **Ask** for questions and comments.

SESSION 2: OBJECTIVES

1. Decide on and record the objectives of the surveillance system

2. Determine data to be collected and frequency, source(s), and procedure(s)

INFORMATION FOR SURVEILLANCE OBJECTIVES

- Purpose(s)
- Users
- Scope
- Target groups
- Cases and/or causes
- Other topics
- Time period and frequency

WORKSHEET FOR SPECIFYING OBJECTIVES OF SURVEILLANCE

PURPOSE(s)

__ Assess needs
__ Identify risk factors
__ Identify outbreaks
__ Identify unusual events
__ Monitor trends
__ Explain causes
__ Evaluate impact on ______________
__ Other: ______________
__ Other: ______________

USER(s)

__ Board of directors
__ Government officials
__ Supervisors
__ Donors
__ PHC Manager
__ Community
__ PHC Staff
__ CDC*
__ Other: ______________
__ Other: ______________

SCOPE

__ Geographic area(s): ______________
__ Programme service(s): ______________

TARGET GROUP(s)

__ Children 1 month
__ Children 12-23 months
__ Children 1-4 yrs
__ Children 5 yrs
__ Women 15-59 yrs
__ Married women 15-49 yrs
__ Pregnant women
__ Other: ______________

CASES

__ Mortality
__ Morbidity

CAUSES

__ Mortality
__ Morbidity

OTHER

__ Specify: __
__ Specif: __

TIME PERIOD: ______________ **FREQUENCY:** ______________

*Local communicable disease centre

WORKSHEET FOR SPECIFYING SURVEILLANCE METHODS

Step 2: Define the surveillance data to collect			**Step 3: Select the surveillance methods**		
			DATA COLLECTION		
Target group	Mortality/ morbidity/other	Indicator	Frequency	Source	Method*

*Routine, sentinel, sample survey/special study, case/outbreak investigation, verbal autopsy

SOURCES OF POSSIBLE INDICATORS

- Module 1
- Appendix B
- Module 5

Session 3: Specify surveillance methods and data collection procedures (Steps 3 and 4)

Objectives:

Participants will be able to follow the directions in the Module 4 User's guide to:

- Specify surveillance methods for each of the indicators selected in Session 2.
- Design data collection procedures.

Session outline:

I. Introduction (10 minutes)
II. Select the surveillance methods (30 minutes)
III. Develop the data collection and reporting procedures (40 minutes)

Materials:

Module 4 User's guide

Transparency 4-9:	Session 3: Objectives
Transparency 4-4:	Surveillance methods
Transparency 4-10:	Data sources
Transparency 4-11:	Substeps for designing collection procedures
Transparency 4-12:	Rules for recording cases
Transparency 4-13:	Types of instruments

Equipment:

Flip chart, stand, markers, masking tape, overhead projector and screen

Session 3: Specify surveillance methods and data collection procedures (Steps 3 and 4)

I. Introduction (10 minutes)

Transparency 4-9: Session 3: Objectives

User's guide

- **Review** session objectives.
- **State** that this session covers Steps 3 and 4 in designing and operating a surveillance system and includes completion of columns 4, 5 and 6 on the worksheet for specifying the surveillance procedures and will guide participants in developing the data collection procedures and instruments.

II. Select the surveillance methods (30 minutes)

Handout 4-3: Worksheet for specifying surveillance procedures

- **Explain** that more than one surveillance method can be used, and that the methods can be modified to better suit the needs of the programme.
- **Instruct** participants to return to Handout 4-3, and **explain** considerations for columns 4 and 5 as they complete them.

Transparency 4-10: Data sources

  Frequency of data collection/reporting depends on routine or priority indicators.
  Primary and secondary data sources.

Transparency 4-4: Surveillance methods

- **Review** the possible methods and advantages and disadvantages of each as presented in Session 1.
- **Facilitate** the discussion as participants select the appropriate methods.
- **Ask** for questions and comments.

Session 3: Specify surveillance methods and data collection procedures (Steps 3 and 4)

III. Develop the data collection and reporting procedures (40 minutes)

Transparency 4-11: Substeps for designing data collection procedures

- **Review** the substeps involved in designing data collection procedures.
- **Explain** that every disease that will be monitored requires a case definition to ensure that all healthworkers use the same definitions and criteria.

User's guide

Refer participants of Appendix B for examples of standard and lay definitions of common diseases.

Transparency 4-12: Rules for recording cases

Review important rules for identifying and recording cases.

Transparency 4-13: Types of instruments

- **Explain** the three types of instruments used in surveillance, and what circumstances warrant the use of each, referring participants to examples of each in the User's guide when appropriate.

  Registers

  Survey questionnaires

  Case investigation

- **Ask** participants to examine daily clinical treatment records, CHW activities registers or other forms used in their PHC programme and determine whether those forms supply the data they have specified on their worksheet.
- **Direct** participants to indicate how the forms should be modified to correct any deficiencies they find.
- **Ask** for questions and comments.

SESSION 3: OBJECTIVES

1. Select surveillance methods

2. Design collection procedures

DATA SOURCES

- Primary
- Secondary

SUB-STEPS FOR DESIGNING COLLECTION PROCEDURES

- Develop operational definitions of cases
- Develop or revise the data collection/recording instruments
- Pretest the instruments

RULES FOR RECORDING CASES

- Avoid double-counting
- Only count those cases that have been diagnosed by a health worker
- Count current cases only

TYPES OF INSTRUMENTS

- Registers
- Survey questionnaires
- Case investigation

Session 4: Collect, report and analyse the data (Steps 5 and 6)

Objectives:

Participants will be able to follow the directions in the Module 4 User's guide to:

- Plan surveillance activities for their PHC programme, based on the methods selected and procedures developed.
- Plan the analysis of their surveillance data.

Session outline:

I. Introduction (10 minutes)
II. Collect and report the data (30 minutes)
III. Analyse the data (60 minutes)

Materials:

Module 4 User's guide

Transparency 4-14:	Session 4: Objectives
Transparency 4-15:	Training topics
Transparency 4-16:	Supervision requirements
Transparency 4-17:	Possible data patterns
Transparency 4-18:	Factors influencing number of cases reported

Equipment:

Flip chart, stand, markers, masking tape, overhead projector and screen

Session 4: Collect, report and analyse the data (Steps 5 and 6)

I. Introduction (10 minutes)

Transparency 4-14:
Session 4: Objectives

- **Review** session objectives.
- **Explain** that this session will guide participants in planning the collection, reporting and analysis of their data.

II. Collect and report the data (30 minutes)

- **Explain** the importance of good training and supervision of staff involved in data collection, tabulation, and reporting for a successful surveillance system.
- **Review** who should be trained and ask participants to review the worksheet for specifying surveillance procedures and list who will be involved in collecting, tabulating, and reporting their data.

Transparency 4-15:
Training topics

- **Review** the recommended training topics.

Note: *Point out the special requirements for case investigations but explain them fully only if it is a method chosen by participants in the workshop.*

Transparency 4-16:
Supervision requirements

- **Discuss** what types of supervision will be needed, and **facilitate** a discussion of any special supervision needs participants foresee for their surveillance method(s).
- **Discuss** what is meant by quality control and **assist** participants to plan as a group ways of ensuring a level of quality for their chosen method(s).
- **Discuss** data collection, tabulation, and reporting requirements for each type of surveillance method, stressing those which were selected in Step 1.

Session 4: Collect, report and analyse the data (Steps 5 and 6)

- **Ask** for questions and comments.

III. Analyse the data (60 minutes)

Note: *If possible, provide a set of actual or hypothetical surveillance data for participants to work from.*

- **Remind** participants about the importance of analysis at each level of the surveillance system.
- **Review** ways of tabulating surveillance data and refer participants to an example of each in the User's guide.

  Summary tables

  Disease charts

  Maps and charts

Note: *The User's guide includes some information on computing rates and ratios for large populations. Include this information only if appropriate for the participants in the workshop.*

- **Explain** that the purpose of analysis is to identify patterns and, possibly, causes of diseases or death.

Transparency 4-17:
Possible data patterns

Present possible data patterns and what they might indicate.

Explain that sentinel systems allow for more detailed analyses, such as correlation.

Point out that changes in disease patterns may reflect a change in health status or a change in the quality/amount of surveillance.

Transparency 4-18:
Factors influencing number of cases reported

Review the major factors that can influence the number of cases reported.

Suggest other analyses that participants may wish to perform.

Session 4: Collect, report and analyse the data (Steps 5 and 6)

User's guide

- **Refer** participants to the tables, charts, and maps on pages 38-41 and ask them to analyse them for patterns and what they might indicate about health status or the surveillance system.

Note: *If possible, provide additional surveillance data showing different patterns to give participants more practice in analysing data.*

- Ask for questions or comments.

SESSION 4: OBJECTIVES

1. Plan surveillance activities for their PHC programme

2. Plan the analysis of their surveillance data

SUPERVISION REQUIREMENTS

Supervisors should be sure that interviewers:

- Follow up on all designated cases and deaths
- Follow up on all incomplete answers
- Encourage probing
- Write all responses down
- Use local language or dialect
- Summarise and verify answers

POSSIBLE DATA PATTERNS

- Spikes
- Clusters
- Trends
- Systematic variations

FACTORS INFLUENCING NUMBER OF CASES REPORTED

- completeness of reporting
- seasonal variation
- epidemics or outbreaks
- coverage
- other factors

Session 5: Investigate causation (optional) (Step 7)

Objectives: Participants will be able explain what is involved in conducting investigations to determine the cause of certain diseases, health problems, or deaths.

Session outline:
I. Introduction (5 minutes)
II. Case/outbreak investigations (15 minutes)
III. Verbal autopsies (25 minutes)

Materials: Module 4 User's guide
Transparency 4-19: Session 5: Objective

Equipment: Flip chart, stand, markers, masking tape, overhead projector and screen

Session 1: Investigate causation(optional) (Step 7)

I. Introduction (5 minutes)

Transparency 4-19:
Session 5: Objectives

- **Review** session objective.
- **Remind** participants that investigating causation requires special training, is time-consuming and is done on a selective basis.

II. Case/outbreak investigations (15 minutes)

Module 4 User's guide, page 46

- **Review** general guidelines for conducting a case or outbreak investigation.
- **Refer** participants to Appendix C and explain each section of the prototype form.
- **Explain** that a form will be needed for each case selected for investigation.
- **Explain** that analysis of this information will help to identify the main cause of the problem and plan preventive action.
- **Ask** for questions or comments.

III. Verbal autopsies (25 minutes)

Module 4 User's guide, page 46

- **Review** general guidelines for conducting verbal autopsies and refer participants to Appendix D for further information and guidelines.
- **Refer** participants to Appendix E and review protocols for child and maternal death investigations.
- **Explain** that analysis of this information will also help to identify the main cause of the problem and plan preventive action.
- **Ask** for questions and comments.

SESSION 5: OBJECTIVE

Participants will be able to explain what is involved in conducting investigations to determine the cause of certain diseases, health problems, or deaths

Session 6: Develop an action plan and present reports (Steps 8 and 9)

Objectives: Participants will be able to follow the directions in the Module 4 User's guide to develop action plans to prevent unnecessary disease and death based on the surveillance data collected.

Session outline:

I. Introduction (10 minutes)
II. Develop an action plan (20 minutes)
III. Prepare and present reports (30 minutes)
IV. Next steps (15 minutes)
V. Conclusion (10 minutes)

Materials: Module 4 User's guide

Transparency 4-20:	Session 6: Objective
Transparency 4-21:	Action plan components
Transparency 4-22:	Guidelines for preparing reports
Handout 4-4:	Worksheet for developing action plans

Equipment: Flip chart, stand, markers, masking tape, overhead projector and screen

Session 6: Develop an action plan and present reports (Steps 8 and 9)

I. Introduction (10 minutes)

Transparency 4-20: Session 6: Objective

- **Review** session objective.
- **Give** a brief overview of session activities.

II. Develop an action plan (20 minutes)

- **Explain** that surveillance data is used to plan ways to prevent unnecessary disease and death.
- **Review** options for developing solutions to an identified problem
  - Modules 4 and 6
  - Problem-solving guide
  - Brainstorming with staff, community representatives, and others

Transparency 4-21: Action plan components

- **Review** what should be included in an action plan once a viable solution is found.

Module 4 User's guide, page 48

- **Refer** participants to the example at the bottom of the page.

Handout 4-4: Worksheet for developing action plans

- **Direct** participants to complete the worksheet for one action based on the analysis of tables, charts, and maps in Session 4.
- **Ask** one or two participants to read their example aloud and invite other participants to comment on its appropriateness, clarity, and feasibility for the stated analysis.
- **Ask** for questions and comments.

Session 6: Develop an action plan and present reports (Steps 8 and 9)

III. Prepare and present reports (30 minutes)

- **Remind** participants that although the data generated by the surveillance system proposed in this module should address the concerns of session objectives and of local PHC managers, it should also be useful at other levels.

Transparency 4-22: Guidelines for preparing reports

- **Review** the guidelines for preparing reports.
- **Explain** the importance of complete documentation.
- **Ask** for questions or comments.

IV. Next steps (15 minutes)

- Briefly **summarise** the steps in this module and the outcomes of each step.
- **Direct** participants to review their completed worksheets and write down the actions that they need to take when they return to the job to:

  Complete the worksheets for objectives for surveillance and for surveillance methods.

  Develop data collection procedures.

  Implement or improve surveillance of morbidity and mortality in their PHC programme.
- **Ask** each participant (or participant team) to briefly describe the actions they will take when they return to their jobs. (The format on Handout 4-4 is appropriate for this action plan).

Session 6: Develop an action plan and present reports (Steps 8 and 9)

V. Conclusion (10 minutes)

Flip chart of expectations from Session 1

- **Review** the expectations participants expressed at the beginning of the workshop and **ask** them to assess informally how well they think those expectations have been achieved. If any were not achieved, **ask** how the workshop could be improved to make that happen.
- **Thank** participants for their time and attention, **congratulate** them on the effort they put into the workshop, and **wish** them good luck in implementing their plans.

Note: *Indicate what follow-on assistance will be available, if appropriate.*

SESSION 6: OBJECTIVE

Develop action plans to prevent unnecessary disease and death based on surveillance data

ACTION PLAN COMPONENTS

- WHAT
- WHO
- WHEN

GUIDELINES FOR PREPARING REPORTS

- Review original objectives
- Review tables, charts, and maps
- Prepare a short explanatory of each
- Order them in logical sequence
  - number of cases
  - number of deaths
  - number of trends
- Discuss major issues
- Summarise actions planned or taken

WORKSHEET FOR DEVELOPING ACTION PLANS

ACTION TO TAKE (What)	RESPONSIBLE (Who)	DATES (When)	OTHER (Where, how, resources)

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MODULE 4
FACILITATOR'S GUIDE

Primary Health Care Management Advancement Programme