Prevention and Control

The prevention and control of the hydatid disease can be achieved by eradicating stray dogs and deworming them. Deworming should be done every six weeks with praziquantel.
You should also provide health education on the dangers of close contact with dogs (licking), especially among children. Also, infected meat should not be fed to dogs.

SECTION 8: DISEASES FROM CONTACT WITH ANIMALS OR ANIMAL PRODUCTS (ZOONIC DISEASES)

Introduction

In this section you will look at infectious diseases which are transmitted between animals and humans.

Objectives

By the end of this section you will be able to:

- List three diseases transmitted through contact with animals or animal products
- Describe the management of zoonotic diseases namely; anthrax, rabies and brucellosis
- Describe the control measures of zoonotic diseases

Diseases from Contact with Animals

What do you call diseases that are transmitted between animals and humans?

Diseases that are transmitted between infected vertebrate animals (animals with a backbone) and humans are called zoonotic.
In some of these diseases, humans are usually the last in the transmission cycle or the final host as in the case of hydatidosis, unless of course the person's body is eaten by a predator.
Similarly in other diseases like rabies and brucellosis, the disease transmission ends with mankind, though possibilities of further transmission can occur if for example, a rabid patient bites another person, or a patient with brucellosis accidentally transmits it to another person.

Zoonoses are transmitted between animals and humans through the following means:

Vectors

These include:

- The rat flea which transmits plague among rats and other rodents
- The tsetse fly which transmits trypanosomiasis among game animals and nagana in cattle
- Mosquitoes which transmits yellow fever among monkeys

Ingestion of Contaminated Material

Ingestion of meat or dairy products from sick animals, leading to diseases such as:

- Anthrax (meat from cattle and game animals)
- Brucellosis (milk from infected cattle)
- Taeniasis (milk and meat from infected cattle and pigs)

Animal Bites

Bites, resulting in diseases such as:

- Rabies (from rabid domestic and wild dogs or foxes)

Direct Contact with Infected Animal

Close contact resulting in diseases such as:

- Hydatidosis (close contact with infected domestic dogs or other carnivores)
- Cutaneous anthrax (contact with infected cattle or their products)

In this section you will cover anthrax, rabies and brucellosis, looking at their mode of transmission, clinical picture, diagnosis, management and prevention.

Anthrax

Anthrax is an acute bacterial disease of herbivores (plant eating animals). However, it occasionally also infects human beings especially those who process hides, skins and wool or work in slaughterhouses. Anthrax is caused by a rod shaped bacteria (bacilli) called bacillus anthracis.

The disease can occur in large numbers among cattle (epizootic), especially during drought and flooding when they are moved from one place to another. In humans, this infection takes various forms depending on the route of entry.
There is anthrax of the skin which affects people who handle cattle, anthrax of the lungs which occurs in people working with infected wool; and anthrax of the bowels which affects families who eat the meat of dead animals.
The type of disease caused depends on the route of entry of the bacillus or its spores. In animals, anthrax causes a fever which is followed by septicaemia and death. Vultures, which feed on the dead animal can spread the spores.

Mode of Transmission

The bacillus anthracis forms spores when exposed to the air.
The spores can survive for years in the soil even under harsh weather conditions. The spores enter the animals orally (through the mouth or ingestion).
The body of a sick or dead animal contains millions of anthrax bacilli. These bacilli are shed through animal urine, droppings, saliva milk and blood.
If any of these body fluids are touched or the meat of an infected animal eaten, a person becomes infected with anthrax.

Clinical Features

The clinical features depend on the route of entry of the anthrax bacillus.
Skin or cutaneous anthrax presents with a malignant pustule with a black necrotic centre. The wound is usually painless and has swollen edges. Skin anthrax has low mortality.
Respiratory tract anthrax on the other hand has a high mortality rate and presents with severe respiratory distress and shock.
Digestive tract anthrax is characterised by fever, sepsis, watery diarrhoea and vomiting.

Diagnosis

The diagnosis of anthrax is made by taking a specimen (fluid from vesicles, sputum or stool) for a culture to confirm gram-positive rods.

Management

Bacillus anthracis responds to penicillin and most other antibiotics.
Patients with anthrax of the respiratory tract need respiratory support and oxygen therapy in a high dependence care unit.
Those with anthrax of the digestive tract may need fluid replacement due to diarrhoea and vomiting.

Prevention and Control

Although the main responsibility for the prevention and control of anthrax falls on the veterinary department, you as a health worker also have a role to play.
You should ensure that all meat offered for sale is inspected and educate the community on proper disposal of all infected animals. The carcasses must be burnt or buried two meters deep in the ground in calcium oxide powder (quick lime).
Other measures include annual vaccination of cows at risk, proper disinfection of hides and skins, and vaccination of members of the community who are at risk of getting anthrax.

Rabies

Rabies is a serious viral disease of canines which is incidentally transmitted to humans by the bite of a rabid animal.
It is caused by a virus known as lassa virus type I. The disease is of public health importance because it has a case fatality rate of 100%. If a patient is not treated immediately after the bite, once the clinical signs appear it is too late.
Rabies is found all over the world and in canines. It occurs all the time and in great numbers (enzootic and epizootic). In human beings, rabies is a zoonotic disease, and humans usually do not transmit it any further.
The main reservoirs of lassa virus type I are felines, hyenas, and mongoose.

Mode of Transmission

The rabies virus is transmitted to humans through the saliva of an infected animal such as a dog or cat.
This happens when humans get bitten by a rabid animal or when its saliva comes into contact with the mucous membranes or open wound of a person.

The main reservoirs of the disease are wild animals such as mongooses, jackals and hyenas. These wild animals infect domestic animals including cattle, donkeys and horses, which in turn infect mankind.
In North and South America, rabid bats have been known to infect humans. All warm blooded animals are susceptible to rabies.

Clinical Features
The incubation period of rabies ranges from two weeks to a year, with an average of two to three months. The length of the incubation period is influenced by the following factors:

- The size of the bite - the deeper the bite the shorter the incubation period
- Distance of the wound from the brain - the nearer the wound is to the brain the shorter the incubation period
- Type of wound - if the wound is big with extensive tissue damage the shorter the incubation period

Write down three symptoms of rabies infection.
The earliest symptoms usually consist of increasingly severe pain in the bite wound, depression, irritability, nausea, sore throat, headache and loss of appetite.
Later, two clinical presentations emerge:
Furious rabies whereby the infected person develops convulsions, intense fear of death and irrational excitement, which alternates with periods of alertness and calmness. The patient is also unable to tolerate noise, bright light and cold drought (aerophobia - fear of cold air). There is increased reflexes, muscle spasms, excessive sweating, dilatation of pupils, excessive salivation and lacrimation. The patient develops intense hydrophobia (fear of water) because of the intense pain experienced when swallowing water due to spasms of the pharyngeal muscles. This stage is also known as the 'furious' rabies stage and it lasts for two to three days and sometimes for five to six days. Death usually occurs due to cardiac or respiratory failure during a convulsion.
The next stage is the paralytic rabies stage which is characterised by paralysis of muscles causing paraplegia, quadriplegia and coma. Patients who reach this stage do not survive for more than a week.

Diagnosis
Diagnosis of rabies is made if a person is bitten by a dog with abnormal behaviour and without any provocation. In addition the presence of negli bodies in the brain of a suspected animal should confirm the disease.

Management
There is no cure for rabies once the disease has started. It is however possible to prevent it from reaching that stage by doing the following:

Post Bite Prophylaxis

Immediately someone is bitten you should give first aid treatment of the bite with the aim of removing as much virus as possible. This involves immediate flushing of the wounds and scratches preferably with running water and washing the surrounding skin with a lot of soap and water. Puncture wounds should be irrigated with a sterile catheter using methylated spirit and povidone. Iodine is also virucidal and may be used to clean the wound.
Bite wounds should not be sutured immediately to prevent more traumas from the suturing needle, which will increase the areas for viral entry into the body tissue. Suturing may be done 24 to 48 hours after the bite using very few sutures under the cover of anti-rabies serum locally.

Anti-Rabies Vaccine

This is a very safe and effective treatment following a rabid animal bite.
The vaccine HDCV (Human Diploid cells tissue Culture Vaccine) is administered in six doses sub-cutaneously as follows:
1ml immediately after exposure (day 0), 1ml on day 3, 1ml on day 7, 1ml on day 14, 1ml on day 30, 1ml on day 90.

Other Drugs

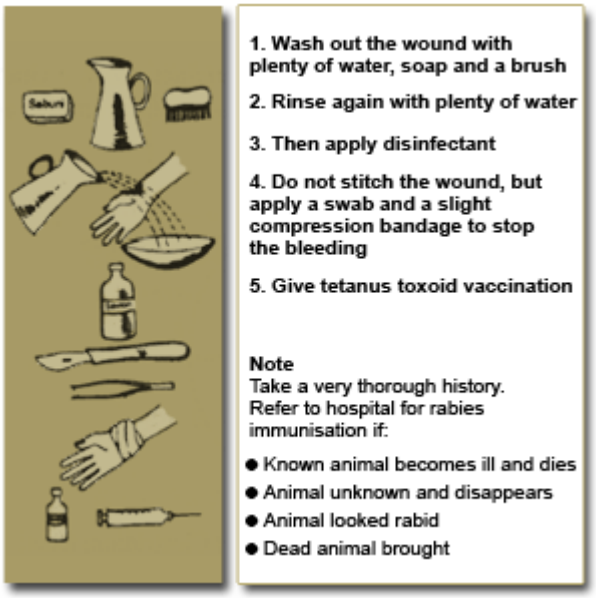
In order to prevent wound infection and tetanus you should give the patient broad spectrum antibiotics.

Note: The animal, which inflicted the bite, should be quarantine and observed for ten days from the day of the bite. If it shows signs of rabies it should be killed anditshead removed and sent under refrigeration for rabies examination.

Prevention and Control

Rabies is a notifiable disease. It is very important to give immediate first aid to a person who has been bitten by a suspect animal.

In addition, you should educate the community members on the importance of immunising their domestic dogs and cats every three years and eliminating all stray dogs and cats.



Brucellosis

Brucellosis is a zoonotic disease or disease of animals. It is caused by a bacteria called brucella melitensis in goats, sheep and camels, brucella abortus in cattle and brucella suis in pigs. All these bacteria however can be transmitted to mankind causing brucellosis.

Distribution

Brucellosis has a worldwide distribution, predominantly in rural areas among pastoral communities.

It is also an occupational health hazard of farmers, veterinarians, abattoir workers and butchers.

Transmission

Brucellosis is transmitted through ingestion of unpasteurised milk or milk products such as cheese.

It can also be transmitted by contact with blood, urine, tissues, through splashing of amniotic fluid or milk on the conjunctiva and blood transfusion.

Clinical Presentation

The incubation period takes about two to four weeks. Initially the signs and symptoms are non-specific and include the following:

- Headaches
- Fever
- Weakness
- Anorexia
- Rigors
- Night sweats
- Constipation

Patients may also complain of pain in the large joints like the hips and knees although any other joint may be affected. Hepatomegally, splenomegally and lymphadenopathy may also be present. If untreated, the disease can continue for many months and the patients may become depressed.

Diagnosis

A serological diagnosis of brucellosis can be made by doing an agglutination test in dilutions. A level of 1:160 or above is associated with the infection.

Blood cultures rarely give positive results but a bone marrow aspirate culture gives better yields of up to 90%. Full haemogram - normochromic, normocytic anaemia, neutropenia and lymphocytosis is common.

Treatment

The treatment of brucellosis is doxycycline 200mg daily for 14 - 21 days and cotrimoxazole tabs 2 bd. for 14 - 21 days.

Prevention

You should educate the community and especially farmers on the importance of boiling or pasteurising milk.

Animal handlers and those at special risk should be advised to take extra precautions.

UNIT FIVE: COMMUNITY DIAGNOSIS

In this unit you will cover the concept of community diagnosis and how to help a community manage its health problems.

This unit is composed of five sections:
Section One: Concept and Purpose of Community Diagnosis
Section Two: Planning a Community Diagnosis
Section Three: Developing and Pre-testing Tools for Data Collection
Section Four: Execution of the Survey, Data Analysis and Presentation
Section Five: Report Writing, Dissemination and Community Action

Unit Objectives

By the end of this unit you will be able to:

- Describe the concept and purpose of community diagnosis
- Explain how to plan a community diagnosis survey
- Describe how to develop and pre-test tools for data collection
- Explain how to execute a survey
- State how to write and disseminate a community diagnosis report and plan community action

SECTION 1: CONCEPT AND PURPOSE OF COMMUNITY DIAGNOSIS

Introduction

When you care for an individual patient, you make a patient diagnosis and organise the appropriate treatment. Similarly, in order to look after a community you must make a community diagnosis and organise appropriate community health programmes. It is therefore important for you to learn the approaches to community diagnosis and what its purpose is, and how it differs from patient diagnosis. You will also learn the terminologies used in community diagnosis.

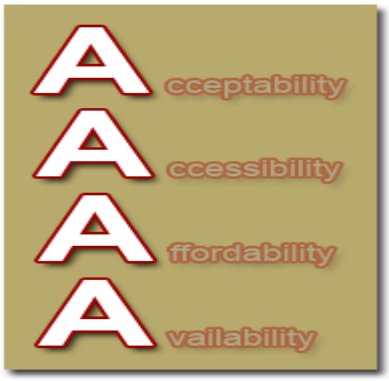
Objectives

By the end of this section you will be able to:

- Describe the concept of community diagnosis
- Explain the difference between patient diagnosis and community diagnosis
- Explain the purpose of community diagnosis
- Describe the terminologies used in community diagnosis

The Concept of Community Diagnosis

Community diagnosis is a process through which health workers together with members of the community identify the community's priority health problems, and together make plans of action and implement them. It points out where the health services should put their main efforts and resources. You learnt in unit three on Primary Health Care (PHC), a community's full participation depends on the four concepts of PHC or the 4As.



The four A's are acceptability, accessibility, affordability and availability using appropriate and local technologies. In the past, professionals including health workers always considered themselves experts on various issues. Health workers would visit a community and without consultation, impose certain sanctions or treatments without the community's consent. Also, some communities have received assistance particularly when there is a disaster

and then been abandoned without being helped to address the causative factors. This has often resulted in dependency, lack of self-initiative to improve themselves or even a belief that they are helpless.

Luckily, this notion has changed. It is now realised that people have the ability to help themselves if they are given some facilitation or guidance. People want to be independent and self-reliant. It is also true that people tend to cherish and care for what they have acquired through a struggle. Such involvement empowers individuals and makes them resourceful and self-reliant.

The community diagnosis concept therefore stresses that the community must identify its problems, prioritise them and draw a plan of action to address the identified problems. The community then implements this plan to resolve the problems. It emphasises total community involvement. This is because the community knows its problems and priorities better than the health worker. When they actively participate in solving these issues they become bound by the decisions they make and feel motivated to see the plans through.

Sometimes, one of the problems you experience as health workers is that communities may be more concerned about water or access to markets than they are about medical problems. In such situations, you need to look at all aspects of community development, that is, adopt an intersectoral approach, so that the real needs
are tackled.

There is no need to rush into a programme before there is understanding and commitment. This will just lead to failure. Sometimes you may even have to show your willingness and interest in what the community wants before you can concentrate on the main health problems.

As health workers, you talk all the time about patient diagnosis. Is this the same as community diagnosis? Move on to look at the difference between patient diagnosis and community diagnosis.

Patient Diagnosis versus Community Diagnosis

In your basic training and in unit one of module one you learned how to diagnose a disease in a patient.

On a notepad write down the four basic steps you would follow when making a patient diagnosis?

Your answer should have included the following:

- Collecting basic information or history taking
- Planning a programme or diagnosis
- Implementation or treatment
- Follow up and evaluation

You can now look at the patient diagnosis steps in more detail:

1. greet and welcome the patient and offer them a seat
2. Ask for the patient's name, age, sex, marital, status and patient's residential address.
3. Take history including details of the patient's progress so far.
4. Perform a physical examination.
5. Carry out or request special nvestigations. Make a differential diagnosis, followed by a specific diagnosis once results of investigations are confirmed. You may even state the expected outcome.
6. Prescribe the most appropriate treatment.
7. Give the patient a date to return for review. A patient with an acute condition should be hospitalised for monitoring and review. Depending on the presenting signs and symptoms, each time they are reviewed their diagnosis may change.
8. As the patient improves discharge them.

Remember:
People are individuals, no two people are alike. Some may have started treating themselves before coming for your help.

In community diagnosis, you follow the same basic steps as the ones you have seen in patient diagnosis. The only difference is that the amount of data is much greater and requires more lengthy analysis and processing.

In community diagnosis you start by collecting basic information. You collect information about the following:

- Local people and their environment
- The number of people and their distribution
- The diseases the local people suffer from
- The organisation of local health services

You then make a community diagnosis by identifying the main health problems and the reasons for them. Identify priority health problems and plan a community health programme or treatment to solve these problems.

Remember:
It is important to only select priority health problems.

This is because health centres often have limited resources and many demands on those resources. There are simply not enough resources to solve all the health problems in the community. Therefore, the health care worker together with the community must select priorities for health action. Remember, it is important to choose only those problems that the community can do something practical about with the help of the local health team (health centre or dispensary staff).
The final step is follow up to evaluate the programme and see if it has made the community healthier. You can evaluate an activity by counting or measuring things or simply by using your judgement. For example, to evaluate whether women are attending your antenatal clinic, you can check how many of the total number of pregnant women in your catchment area attend the clinic. You can also assess whether they are satisfied with the service by talking to women who attend the clinic and also to some who don't.
The tools you use in patient diagnosis are, for example:

- Sphygmomanometer (BP machine)
- Stethoscope
- Weighing scales
- Thermometer
- Chairs
- Record books

In community diagnosis, you use survey tools for example:

- Maps
- Weighing scale
- Specimen bottles
- Questionnaires

Now you have looked at the difference between patient diagnosis and community diagnosis. You can now consider the purpose of conducting a community diagnosis.

Purpose of Community Diagnosis

The main purpose of carrying out a community diagnosis is to collect information on the following:

- Demographic data plus all the vital health statistics
- Utilisation of health services especially of maternal and child health clinics
- The causes of morbidity and mortality (by age and sex)
- State of nutrition, diet, weaning patterns and the growth of preschool and school-going children
- Patterns of leadership and communication within the community
- State of mental health and common causes of stress
- State of the environment including water, housing and disease vectors
- The community's knowledge, attitudes and practices (KAP) in relation to health-related activities
- Epidemiological details of endemic diseases
- Available resources and services for overall development of health-related activities for example, education, agriculture, veterinary and social services
- Socio-cultural and socio-economic class divisions within the community (social stratification)

Although a community diagnosis can yield a lot of data, it is not possible to collect it all in detail. Therefore, you need to tailor your survey to suit the specific information you want to collect.
You will now look at some of the terminologies used in community diagnosis.

Terminologies Used in Community Diagnosis

Many of the terminologies used in community diagnosis have already been defined in unit one, section one and three of this module.
Write down the definitions of the following terms on a notepad.

Community Health
Community health is the science and art of promoting health and preventing disease through organised community participation
Incidence
Gives information on the number of new cases of a disease or condition occurring over any specified time.
Prevalence

Gives information about the total number of cases of a disease or condition at a particular time; whether new or old.

Infant Mortality Rate

This is the probability of dying between birth and exactly one year of age expressed per 1,000 live births. It is calculated by dividing the number of infant deaths during calendar year by the number of live births in the same year.

Crude Birth Rate

This is the number of births per 1,000 population. It is calculated by dividing the total number of births in a year by the mid-year population

Crude Death Rate

This is the number of deaths in one year per 1,000 population. It is also called Crude Mortality Rate. It is calculated by dividing the total number of deaths (D) by mid-year population (P) and expressed per a thousand population

Rate of Natural Increase

RNI in a country can be calculated by finding the difference between birth rate and death rate per 1,000 then expressing such a difference as a percentage. It is the percentage annual rate of population growth without regard for migration.

A negative number means the death rate is greater than the birth rate and so the population is decreasing.

Dependency Ratio

This is the ratio of (potentially) economically active population to the retired population and children under 18 years of age, giving a rough estimate of the number of depedants per worker. It is calculated by dividing under 18's and over 64's by 18's to 64's.

In addition to the terminologies listed, there are two other terminologies used in community diagnosis, namely, indicators and variables.

Indicators

Events or facts that can be measured to reflect the health status of an individual or community.

Variable

Characteristic within the study sample whose value changes among the study subjects. It is an observation made on the study subjects. Often two or more observations are made on a number of subjects. These observations either increase or decrease simultaneously or at varying levels. The two or more observations are called variables and their relationship is called correlation. For example, in a study of youths you may decide to observe their age and weight. In this case, the weight and age are the variables. There are two types of variables, namely, independent and dependent variables. In the example just given, age is an independent variable while weight is a dependent variable. Independent variables are plotted on the horizontal axis of a graph while a dependant variable is plotted on the vertical axis. Variables can also be described as qualitative or quantitative. Quantitative variables are expressed in numerical terms. For example, age, height, area, weight and so on. Qualitative variables are adjectives that describe the subject of study, for example, farmer, teacher, nurse, male, female, green, yellow, white, sadness, happiness, satisfaction, religion.

Ethical Considerations in Community Diagnosis

When conducting community diagnosis, it is very important to avoid taking any action that may be considered offensive by the community. You need to make sure that the tools you use to collect information are not in any way offensive to the community. They should not cause any physical, emotional, spiritual or cultural harm to that community.

You should consider some of the following:

- Obtaining permission to enter into the community boundaries
- Obtaining informed consent before interviewing patients, families or groups
- Establishing rapport before exploring sensitive areas
- Ensuring confidentiality of the data collected
- Selecting good interviewers
- Training interviewers

SECTION 2: PLANNING A COMMUNITY DIAGNOSIS

Introduction

Welcome to section two of this unit on community diagnosis. In the last section you covered the concept and purpose of community diagnosis. In this section you will learn how to plan a community diagnosis survey. Now look at the
objectives of this section.

Objectives

By the end of this section you will be able to:

- Describe the process of community diagnosis
- Explain how to conduct initial exploration and interaction with the community
- Explain how to plan a community diagnosis survey
- Describe how to select a representative sample for the survey

The Process of Community Diagnosis

The process of community diagnosis requires careful planning right from the beginning. It involves initial exploration and interaction with the community, planning of the survey, developing and pre-testing the survey tools and methods, and executing the survey and analysing the results. Once all the information has been gathered it must be documented and its conclusions disseminated to the community. The process of community diagnosis is made up of the following steps:

1. Exploration
2. Planning of the survey
3. Developing and pre-testing survey tools
4. Execution of the survey and data analysis
5. Report writing, dissemination and community action

In this section you willl only learn the first two steps, that is, exploration and how to plan a survey. The rest will be considered in subsequent sections of this unit.

Exploring the Community (Community Inventory)

Exploration simply means mapping out of a community in order to learn or discover about it. It is also known as community inventory. Ideally, you should only carry out a community diagnosis after a request by the community or the people involved in providing health care. The exploration phase is made up of three main activities:

- Seeking permission and informing the various leaders
- Seeking reactions of members of the community
- Gathering background data about the community

Although these activities are listed separately, they actually can take place at the same time.

You will now look at each activity in turn.

Seeking Permission and Informing Authorities in the Community

For the survey to succeed you must seek permission from community leaders.

Start by channelling your request through the official hierarchy of administrative leaders in that community:

- Health personnel such as Medical Officer
  in Charge
- Governmental officials such as Chiefs or District Officers
- Community leaders through, for example, the village health committee

You should approach all these people, introduce yourself and clearly state the objectives of the survey and your plan of action. Remember, for them to give you permission to proceed they need to understand what you intend to do and how it will benefit the community.

So be well prepared. The community leaders are extremely important to the success of the survey as they clearly understand what, how, when, and why things happen. They also influence other members of the community more directly than administrators who do not live in the community. You should therefore seek their assistance in implementing the survey. They will only cooperate if they perceive some beneficial results from their cooperation. So you should always plan a survey with the intention of carrying out an appropriate action programme for the community.

Seeking Reactions of Members of the Community

During this period of exploration, you also sound out the reactions of members of the community. This can be done by talking to people informally in market places and eating places. This way, you will easily find their opinions or problems in the community and their likely solutions. Also by talking to them you can gather information regarding possible resistance to the survey and how to approach different members of the community.

Gathering Background Data

The period of exploration also presents you with the opportunity to gather background data about the community. For instance, the Medical Officer of Health in charge of the district will give you an overview of the health profile of the district. The District Commissioner will give you boundaries,

the population and maps of the area. The District Education Officer will give information about educational activities and literacy levels of the community members. Other district heads will give information related to their areas of jurisdiction. Although some of the records might not contain the most recent data, you can make projections by estimating the current population figures in the community.

Similarly by looking at other government reports you can gather information regarding the climate and weather conditions, water sources and the road network. The older people in the community are a little used resource and yet they can provide you with a lot of information on the community's history.

Gather information as you move around the community by:

- Questioning
- Observing
- Smelling
- Listening

You should also look at findings of previous surveys so that you can adequately address any new problems.

Once you explore the community and gather all the information you need you are now ready to plan your survey.

Planning the Survey

This is a very important part of the process of community diagnosis. There is a popular adage which says 'If you fail to plan you plan to fail'. So if you fail to plan the survey carefully and properly, your study will be unsuccessful or will give you unreliable results.

During the planning phase, you should attempt to answer the following questions.

Why is the Survey Being Done?

A survey is not carried out just to obtain interesting information. There must be good reasons and the reasons must be useful to the community. This question must therefore be answered to the satisfaction of all the leaders who are concerned with the community.

If the community has given you permission to carry out the survey, it will expect and have a right to expect some beneficial results from its cooperation. You should therefore plan the survey with the intention of carrying out a proper action programme for the community. This information would most likely have been communicated during the exploratory phase.

Once the community leaders understand the reasons and are ready to cooperate with you, a meeting of the members of the community should be called to explain why there is a survey, why they have been chosen, what will be involved, when it will be done and what will happen to the results. During this meeting you should invite government, health and community leaders so that the community can see who is supporting your work and who will be moving around their community and homes.

Where Will it Take Place?

You will have made this decision right at the beginning when exploring the community and seeking permission from various community and government leaders.

Who Will be Interviewed?

It is usually not possible to interview everybody in a community unless of course it is very small. You will therefore need to select a sample from the total population which will be considered representative of what is happening in the entire population. The sample could be made up of individuals or households depending on the available resources and time. There are certain techniques used to choose a sample. These are covered in detail later in this unit.

It is also useful to talk to the local opinion leaders such as, the chief, village elders, members of organised groups such as church leaders and traditional healers, professionals in the area such as teachers and medical staff, and other extension workers.

When Will the Survey Take Place?

If you intend to visit people at home, then you should avoid days when people are less likely to be at home, such as market days. It is important to choose carefully the days when the interviewers will be in the field in order to ensure that they find the people they want to interview. The exercise should also not coincide with seasons of important community activities such as planting, circumcision etc. Ideally you should decide when to conduct the survey after consulting the community members so that they are prepared for you.

What Will be Covered in the Survey?

This will depend on what you want to learn about the community's health status and the information you have gathered during the

exploratory phase.

However, some topics like nutritional status of children under five are often covered in a community diagnosis survey. Think of some of the common health problems that you see in your area for; children under five years, women aged from fifteen to forty nine years, and older people of sixty years and over.
You will agree that each group of people has its own unique problems. It is important to find out what these problems are and then decide with the community which problems are the most important.
Some of the specific areas that surveys address include:

- Screening people for diseases
- Seeking to understand and identify ways of getting rid of negative cultural beliefs and behaviour that is causing ill health in the community
- Assessing the utilisation of the available health services

Why are certain variables included and others left out?

Although it is your responsibility to determine what is included or omitted, it is very important to explain the reasons to leaders and members of the community. If you do not explain this clearly they may become disappointed and stop cooperating with you.

What instruments will be used to measure the community's health status?

Usually questionnaires are used to cover most of the topics. However, in some instances, anthropometric measurements, physical examination and laboratory tests may also be necessary. You will cover questionnaires in more detail later in this section.

How will data be collected and with what resources?

To answer this question you will need to specify the tasks that need to be done and then identify who will do them and how long it will take them. Consider the following factors:

- Time to travel to the study area
- Time to locate the groups
- Time and number of times each group will be visited. Allow time for following up defaulters
- Calculate the number of interviews that can be completed in a day
- Calculate the number of days that will be needed to complete the whole sample
- Calculate the time needed for other parts of the study for example five days for preparation and pre-testing and twenty days for actual work

How do we select and train the official interviewers?

Ideally, the interviewers should come from the community so that they are well known to its members. School teachers, school children, health centre staff, village elders and young educated people are some of the people who can help you to survey your area and fill in the questionnaires. However, if your interviewers are not from that community, then you will need to introduce them to the community leaders and if possible to the community members in a public meeting. Once the survey begins, they should wear identification badges and introduce themselves.

Remember:

It is advisable to over estimate the time needed for data collection to allow for unseen delays.

The people you select for training as interviewers should have the following qualities:

- Be literate and well known to the community
- Have the ability to display the right attitudes and opinions
- Be able to explain the questionnaire effectively to the community
- Be able to use the tools presented in your package
- Be able to establish good rapport with individuals, families or groups they will meet
- Be good listeners and sensitive towards other people's feelings
- Be able to relate well to the community members

You should impress on the interviewers the value of working well with all sections of the

community. If one of your tools addresses a specific group like the youths, you should select an interviewer of the same age or sex who can identify with the group. This helps to elicit the salient points from their responses. Whenever possible, select people who speak the language of the study group.
The people who are selected as interviewers have different educational backgrounds from yours and may interpret questions and answers differently. So you must train them on how to administer the survey tools. When training interviewers you need to explain the following:

- The purpose of the survey
- The method to record the various expressions used by people to answer particular questions
- The procedure they should follow to get cooperation from the people being surveyed

If you intend to use a questionnaire you should go through it several times with the interviewers to ensure that they all have a common understanding of the questions and are able to ask them properly. The interviewers should understand the need to follow the questionnaire closely and in a standardised manner. If each interviewer asks questions in their own manner the answers will be unreliable because they may refer to different things.

During the training you should hold mock interviews with the interviewers so that you can ensure that each one of them can handle the assignment. Use this opportunity to correct them and also to clarify issues about the questionnaire such as wrong translations and questions. Once you are confident that your interviewers can handle the job, you should carry out a trial test or pilot test on a section of the community who have similar characteristics as the study group. This gives them a feel of the real situation and helps you to assess them further.
Remember that the pilot group should not be included in the study group.
Interviewers should conduct themselves in an appropriate manner when approaching respondents. The points below should be followed:

- Establish rapport by greeting the respondents and introducing themselves
- Explain carefully why they have come and what is the purpose of the survey
- Ask if they are welcome to interview the family and if it is convenient for them at that time
- Explain that they will be recording the information they collect
- Emphasise that all information collected is confidential
- Give them a chance to ask questions for clarification

Having planned your survey and trained your interviewers, you now need to identify a representative sample which will answer your questions and provide you with the information and results you need. You will now look at sampling.

Sampling for a Survey

Sampling is the process of selecting a number of individuals or units of the study population in such a way that the individuals selected represent the larger groups from which they are selected. You will agree that it is neither practical nor economical to survey a whole population. That is why the part of the population studied is called a sample. The aim is to get the the same information from that sample that you would have got if the whole population had been surveyed. For this reason, when you are selecting a sample for a survey, you must make sure that it is representative of the whole population.

Also, in the sampling process you have to give an equal chance for each person in the population to be included in the sample. Otherwise you can come to wrong conclusions.

A Study Population

A study population is the entire group of individuals, events or objects that have common observable characteristics. For example:

- All first years in nursing
- All under fives in a given community
- All qualified nurses with mental health qualifications

This must be clearly defined for example, according to age, sex, or residence. A study population may also be selected for example, according to villages, institutions, records. Each

population is made up of study units identified by the type of problem that you want to study.
A study population can be divided into two main groups, namely, accessible population and the representative sample.
The accessible population is a group of individuals, objects and events with characteristics comparable to the target population and relevant to the study.
The representative sample is a group from the study population, which has all the important/relevant characteristics of the total population.

Sampling Methods
Before you sample you need to develop a sampling frame. A sampling frame is a list of all units that make up the study population. It enables you to sample the study units in such a way that the probability or the different units to be selected in the sample are known. Sampling techniques fall under two main groups, namely, probability sampling and non probability sampling.
You will now consider each group starting with probability sampling.

Probability Sampling
Probability sampling looks at the entire group of individuals, events or objects that have common observable characteristics. It has been found to give accurate results when one is studying groups that are too large to study in their entity. It also provides you with an efficient system of capturing; in a small group the variations or similarities that exist in the target population.
The following are the most commonly used methods in probability sampling:

- Simple random sampling
- Systematic sampling
- Stratified sampling
- Cluster sampling
- Multi-stage sampling

You will now look at each in turn.

sampling methods

Simple Random Sampling

This is the simplest form of probability sampling. It means that every sampling unit in the population has an equal chance of being included in the sample. You can draw a simple random sample using the following steps:

- Make a list of all the units in the population to be studied
- Decide on the sample size
- Select the required number of units using ballot or lottery method or random numbers

For example to draw a random sample of five patients from a list of 250 using the ballot method, you follow this method:

- Give each client a number (1 - 250)
- Write them on a small piece of paper
- Fold them individually and put them in a box
- Shake the box vigorously to mix them
- Pick five pieces one by one and note the numbers and record

Each patient is a unit and the names of the patients on these numbered papers form the sample or study population.

Systematic Sampling

Here you first decide the sample size you want and then proceed to select the individuals or units using a systematic method.
For example, let us assume that the population size you want to study consists of 1000 women. Out of this population, you only want to pick a sample of ten women for your study. This gives you a ratio of 1:100 or a sample fraction of 1/10.
Now, with this ratio you can proceed to pick the sample population as follows:

- Select the first file randomly. Let us assume that you have selected file number 25.
- Starting with file no. 25, proceed to pick every 100 file, that is, file 125, 225, 325, 525, 625, 725, 825, and 925. You now have your random sample of ten files.

Stratified Sampling

This is dividing the sample frame into smaller sub samples in order to enable you to capture the variable aspects of each subgroup.This method is used when the study population is very variable, for example, different ethnic groups, different ecological areas, or age groups. It allows you to subdivide the population into sub populations which are more

homogeneous.You then apply simple random sampling to each subgroup or stratum.

Cluster Sampling

In this method, you randomly select groups or clusters and not the individuals or cases. This method is used when it is not possible to obtain a sampling frame because the population is either too large or scattered over a large geographical area. In cluster sampling you select an intact group and include all the members of that group in the sample. For example, say you want to study patients suffering from malaria in your district. It would be expensive and time consuming to compile a list of all malaria patients who have been hospitalised in your district.
So the logical thing to do would be to list all health facilities in your district and then randomly select them according to your sample size. Once you select them, you would then include all the malaria patients in those health facilities in your sample.

The methods of sampling you have just covered are known as probability sampling. You will now look at another group of sampling methods known as biased sampling or non-probability sampling methods.

Non Probability Sampling Methods
Non probability sampling methods are used when a researcher is not interested in selecting a sample that is representative of the population. They are mainly used in qualitative studies where the focus is on in-depth information rather than making generalisations. Some examples of non-probability sampling methods are convenient sampling, quota sampling and purposive sampling.
You will now look briefly at each method.

Convenience Sampling

In this method, you select cases or units of observation as they become available.
For example, a health worker wanting to study attitudes of villagers towards family planning may decide to interview all adults visiting Maternal Child Health or Family Planning (MCH/FP) clinic on that day. Such a sample is useful for giving a first impression of a situation. However, it is not representative of the community. This sample is considered unrepresentative because some units can easily be missed out or under selected.

Quota Sampling

In this method, the researcher simply selects subjects to fit in identified quotas, say for example, a certain religion or social class. Quota sampling ensures that various groups or quotas of the population are included in the study according to some criteria. The selection is not random as the individuals are just picked as they fit into the identified quotas.

Purposive Sampling

Here the researcher simply picks individuals or cases that have the information or characteristics which they requires. It is sometimes used in one of the stages in the sampling procedure, for instance, to get the location or district in which the units of observation have the required characteristics. Once the units are selected, the researcher may then apply random sampling to obtain the actual sample of cases.

Bias and Sampling Errors
As you noted in probability sampling, selecting a sample requires special techniques which ensure that each person in a population has an equal chance of being selected into the sample. If a sample is not randomly selected or if the interviewers do not follow a similar and consistent method, there will be errors in the data gathered. These types of errors are called bias. Further, even when the sampling techniques which reduce bias are correctly applied during the selection of a sample, the results of the study may be subject to another error known as sampling error. This is because within the small group selected to represent a larger one, there may be people whose characteristics are very different from anyone else's in the same group. Very small samples tend to have higher sampling errors than large samples.

SECTION 3: DEVELOPING AND PRE-TESTING TOOLS FOR DATA COLLECTION

Introduction

Welcome to the section three of this unit on community diagnosis. In section two you learnt about community exploration and how to plan a survey. You also looked at different sampling techniques which can help you to select a representative sample for your survey.
In this section you will consider yet another step in the process of community diagnosis. You will look at how to develop and pre-test tools for data collection.

You will start by looking at the objectives for this section.

Objectives

By the end of this section you will be able to:

- Name at least two tools that can be used during a community diagnosis exercise
- Explain how to develop a questionnaire
- Describe how to organise a focus group discussion
- Describe how to pre-test the survey instruments

Tools

Tools are implements that help us with our work. Before you embark on any procedure, you ensure that you have all the tools you need to do it effectively and that they are in the best possible condition. Similarly, before you embark on a community diagnosis survey you need to ensure that you have all the tools and instruments you need for measuring the community's health status. The tools used to measure a community's health status are:

- Questionnaires
- Focus group discussions
- Measurements, physical examination and laboratory tests
- Key informant interviews

You will now look at the first two tools in detail starting
with questionnaires.

Questionnaire

A questionnaire is a set of standardised questions designed to collect information about a specific aspect or issue in the community. It is therefore a tool for collecting information. Information from a questionnaire helps you to make plans for your health services and to evaluate them.

Before you design a questionnaire it is important for you to know what information you need to collect and how it will be used. It would help you to make a list of what you want to know. In other words, what do you really want to find out or achieve with the questionnaire?

Qualities of a Good Questionnaire

A good questionnaire has the following qualities:

- Has simple and specific questions. Avoids wording that is above the vocabulary or reading skills of the respondents.
- Has short and precise questions. The number of questions should not be too many or else they will put off the person being interviewed. In other words, keep it short and simple (KISS).
- Avoids use of abbreviations or jargon.
- Avoids questions that are too demanding and time consuming.
- Avoids bias in questions. Biased questions influence people to answer in a way that does not accurately reflect their position. For example, a question like 'Do you agree with the majority of the people that health standards are falling?' implies that the respondent should agree.
- Avoids making assumptions. Questions such as 'How many children do you have?' assume that the respondent has children. You should only ask this question after establishing the situation with the question 'Do you have children?'
- Avoids double questions. For example, 'Did the MCH talk help to identify ways to improve the sanitation and nutrition of your children?' It is better to ask about sanitation and nutrition separately.
- Has clear wording. Words such as majority, older people, regularly, might mean different things to different people and so should be avoided.
- Questions ask about simple common happenings.
- Questions range from known to unknown and from simple to complex.
- All the questions should relate to the purpose of study. Eliminate 'nice to

know' questions, you may end up with 'information overload'.

- Questions are acceptable to the people included in the survey.You should view the questions through the respondents eye and ask yourself the following:
  - Will the question be seen as reasonable?
  - Will it infringe on the respondents privacy?
  - Will the respondent be able and willing to answer the question?
- Questions should not screen disease if no effective treatment can be offered for the cases found or if the condition is rare.
- Type of question should either be open- or closed-ended.
- Questionnaire must be pre-tested before executing the survey. This helps to identify and eliminate questions that are defective or may lead to wrong information. You may even need to rephrase the questionnaire so that it can elicit the correct responses.

Types of Information
Questionaires can help you collect four different types of information.

Understanding
Information about what people know or how well they understand something, that is, knowledge. For example, what is the major cause of accidental deaths among children in the home?

Beliefs, Attitudes and Opinions
Information about people's beliefs, attitudes and opinions. Here you would be asking people to share with you their thoughts, feelings, ideas, judgment or their way of thinking. For example, in your opinion does positive self-esteem prevent drug abuse among adolescents?

Behaviour
Information about people's behaviour. That is, what people have done in the past, present, and what they plan to do in the future. For example, have you ever attended an antenatal clinic?

Attributes
Information about peoples attributes. That is, their personal or demographic characteristics. For example, age, education, occupation and income.
When you design a questionnaire you should be very clear about the objectives and type of information you desire to collect. Otherwise you may end up collecting peoples opinions when in actual fact you wanted to document their behaviour.

Remember:
The response or information you obtain is only as good as the question. To get correct information you must ask the right question.

Types of Question
A questionnaire should be laid out in such a way that it provides easy flow from one topic to another. It should have both open- and closed-ended questions. They should be arranged in such a way that they allow natural flow of discussion.

Open-ended Question

An open-ended question is a type of question that allows the respondent to provide their own answer. It encourages the respondent to think and describe a situation in their own words. The respondent is not given any answers to select from. The answer given is best recorded in the respondent's own words. Although it is the easiest way to ask for information the responses are not easy to analyse. The answers are bound to be varied and so you need to categorise and summarise them.
Open-ended questions are useful because they give more information on:

- Facts and details which the researcher may not be familiar with
- Opinions, attitudes and suggestions
- Sensitive issues

The following are examples of open-ended questions:

1. What did the traditional birth attendants do when your labour started?
2. What do you think are the reasons for the high dropout rate of health committee members?
3. What would you do if you noticed that your daughter (a schoolgirl) has a relationship with her teacher?

As you can see, these questions require deeper thinking and provoke the respondent to elaborate when responding.

Closed-ended Question

These are questions that offer the respondents a list of possible answers to choose from. They are specific and useful when you are interested in certain aspects of an issue. Although they produce more uniform answers than open-ended questions, they depend upon our knowing and including all the relevant answers in the list. To view a table giving three examples of closed-ended questions click the link below.

table of examples of closed ended questions.

Example 1

What is your marital status? Tick the correct answer.

Single	
Married/living together	
Seperated/widower/divorcee	

Example 2

Did you eat any of the following foods yesterday? Circle 'Yes' if you ate any of the foods listed.

1. Peas, bean, lentils Yes/No

2. Fish or meat Yes/No
3. Eggs Yes/No
4. Milk or cheese Yes/No

Example 3

How useful have the activities of the village health committee been in the development of this village?
Tick the box corresponding with the correct answer.

1. Extremely useful 3. Not very useful
2. Very useful 4. Not useful at all

A good questionnaire should cover the following topics:

- Measurement of the community's health status
- Anthropometric measurements
- Physical examination
- Laboratory tests

Once your questionnaire is ready, your next challenge will be to pre-test it. However, before you look at how to pre-test your instruments, you will look at the other type of tool used in a community diagnosis survey, namely, focus group discussions.

Focus Group Discussions (FGDs)

This is a group discussion that gathers together people from similar backgrounds or experiences to discuss a specific topic of interest to the researcher. The group of participants are guided by a moderator (or group facilitator), who introduces topics for discussion and helps the group to participate in a lively and natural discussion amongst themselves.

A focus group is not a group interview where a moderator asks the group questions and participants individually provide answers. The focus group relies on group discussion and is especially successful where the participants are able to talk to each other about the topic of interest. This is important as it allows the participants the opportunity to disagree or agree with each other. It can provide insight into how a group thinks about an issue, about the range of opinions and ideas, and the inconsistencies and variation that exist in a particular community in terms of beliefs and their experiences and practices.

The discussion is usually 'focused' on a particular area of interest. It does not usually cover a large range of issues, but allows you to explore one or two topics in greater detail.

Focus Groups in a Community Diagnosis Survey

Focus groups can be used in the following ways:

Exploratory Studies

Focus groups are a valuable method to explore a topic about which little is known, or little has been written in the past. For example, in order to set up a successful health education programme you need to understand people's traditional health beliefs. Focus groups can begin this process by providing the first in-depth descriptions of how the community sees the cause and treatment of certain illnesses. Focus groups can also be used to discover local terms used for signs and symptoms of illness, types of illness, and other concepts relating to health.

Testing Ideas about New Programmes

In the planning phase of a new programme, it is possible to use focus group discussions to find out what the community feels about the new plan. You can use the method to see what the community identifies to be major problems or difficulties in existing programmes and incorporate their needs into the new programme. Focus groups can give you an understanding of how appropriate the new plan may be in terms of culture or technology.

Solving Specific Programme Problems

Sometimes programmes have been running for some time and do not appear to be having the expected impact. A focus group can be used to explore such issues and identify the problems that may be hindering the success of the programmes.

Conducting a Focus Group Discussion
In order to conduct a successful focus group discussion you should adopt the following four steps:

Step One: Preparation

First you recruit participants. Focus groups are 'focused' because the participants usually share a common characteristic. This may be age, sex, educational background, religion or something directly related to the topic. This encourages the group to speak more freely about the subject without fear of being judged by others who are thought to be superior. For example, young women may not be as forthcoming in their ideas and opinions in the presence of their mothers or mothers-in-law. The participants should have prior knowledge so that they can come prepared.

Step Two: Physical Arrangment

It is good to make sitting arrangements that allow participants to see each other. Circular seating is the best as everybody can see each other. Avoid the traditional classroom type of sitting. Ensure the room is well lit and ventilated and has minimum or no disturbance so that the participants can concentrate on the discussion. The environment should promote talking and sharing.

Step Three: Preparing a Discussion Guide

You should prepare a set of questions that will help you to guide the discussion. These questions should also allow free flow from one aspect of the topic to the next in a relevant fashion. This helps the participants to think logically and build on the topic you are investigating. Have a mixture of general and more specific questions. If your questions are all general, you may not elicit detailed responses from the participants. On the other hand, if your questions are all specific, you may neglect to address and receive information on the 'bigger picture.'

Make sure you have a variety of follow up 'probes' for each of your questions in the event that you need to clarify questions or have participants elaborate on their responses.

Step Four: The Discussion

Before you proceed you should identify among your team one facilitator and one recorder and introduce them to the group.

Functions of the Facilitator
The functions of the facilitator are to stimulate and support the discussion by:

- Introducing the topic and all the other participants. Self introduction is better because it already sets in motion the tone of sharing for everybody.
- Reassuring them and explaining the purpose of the discussion and the type of information required. The participant also needs to know how and where the information will to be used.
- Encouraging discussion by being enthusiastic, lively, humorous and showing interest in the group's ideas. The facilitator formulates and asks questions following the prepared guide. The facilitator should involve all the members but must remain neutral to all responses so that the participants can freely express their feelings, opinions and views.
- Encouraging involvement of all the members of the group.

To encourage involvement of all members of the group the facilitator should ask open-ended

questions. The facilitator should identify and manage individuals who dominate the discussion and deny others a chance to respond. One way of managing domineering members is to ignore them and instead give attention to the other members when they want to give an opinion. Maintain eye contact with the shy ones and prompt them to talk by calling them by name and posing questions directly to them. Build rapport and empathise as necessary. You should also watch their expressions, mannerism and non-verbal communication. Try to understand what they are saying, communicating or insinuating. If something is not clear ask for elaboration. Avoid being
an expert.
The members may ask for your opinion. Re-direct the question back to them by asking for their opinion instead or what action they would take in respect of the question.
After the session is over, you could share with them the information they were asking for. Control the discussion without blocking their freedom of expression and keep within the time allocated for this. At the end of the session you should thank them for sharing their time and ideas with you.

What the Recorder Records
The recorder records all key issues raised in the session and other factors that may influence the interpretation of information in as much detail as possible. This involves noting down the responses from the group and observing and documenting any non-verbal messages that could indicate how a group is feeling about the topic under discussion.
The following must also be recorded:

- Date, time, place
- Names of participants
- Description of the group level of participation including any dominant participant
- Details of opinions of participants as much as possible using their own words especially for key statements
- Details of emotional aspects and the vocabulary used. This will be particularly useful for developing questionnaires or health learning materials. If possible, a tape recorder should be used as well

The recorder may also help the moderator if necessary. She or he may point out questions that are not well explored; questions missed, or suggest areas that could be investigated. The recorder should not be especially obvious to the group but should be able to communicate with the facilitator if required and help them resolve conflicting issues.
At the end of the discussion, the facilitator should sit with the recorder and review the discussion and complete the notes and evaluate how the discussion went. They should then prepare a full report of the discussion using the participant's own words. It is necessary to list the key statements, ideas and attitudes expressed during each topic. These statements are usually coded and written on the left-hand margin while the comments are written on the right-hand side. It may be necessary to formulate additional questions at this stage for those issues that were not yet clear or controversial.
Next, you will look at how you can pre-test your instruments in order to ensure that they are capable of collecting the data you need.

Pre-testing the Instruments

It is very important to pre-test all the instruments you intend to use before they are finally administered. It enables the interviewing team to discern, alter or delete questions which are being misinterpreted or are too sensitive to be asked without offending people. It also gives you the opportunity to discover if the various parts of the questionnaire flow in a logical order.

Points to Look for When Pre-testing a Questionnaire
According to Salant and Dillman (1994), any pre-test aims to answer the following questions:

- Does each question measure what it is intended to measure?
- Do respondents understand all the words?
- Are questions interpreted similarly by all respondents?
- Does each closed ended question have an answer that applies to each respondent?
- Does the questionnaire create a positive impression, one that motivates people to answer it?
- Are the answers which respondents can choose from correct? Are some responses missing? Do some questions elicit uninterpretable answers?

- Does any part of the questionnaire suggest bias on the part of the researcher?
- Is the questionnaire too long?

Procedure for Pre-testing
During pre-testing, you examine individual questions as well as the whole questionnaire critically by:

Asking colleagues to review the questions critically

This helps you to identify if the questions are clear and whether they meet the study objectives.

Pre-testing the questionnaire on people who are very similar to your target group

It is also important to pre-test your instruments on a community that is very similar to the one in which the survey will be done.

Simulating the actual data collection procedure

If for instance you are going to administer a questionnaire, you should give each interviewer/interpreter a copy and ask them to administer it to the group. Each interviewer should pre-test at least one complete questionnaire.

Obtaining feedback about the form and content of the questionnaire

Were any questions misunderstood? Were the directions clear? Was the questionnaire too long or too difficult? How long did it take to fill it out? Was there enough space for the responses? You should leave in each questionnaire more space for answers than is planned for the final one. This gives the interviewer more space to fill in responses to questions which had not been anticipated.
Checking if the questions produce the information we need

Does the question illicit the information that you need?

Trying out your tabulation and analysis procedure

Does the questionnaire yield data that can be analysed in the way that is needed.

Revising

Check the final draft by going over each question. Ask yourself what the information gathered from each question means and whether it will contribute to the study.

SECTION 4: EXECUTION OF THE SURVEY, DATA ANALYSIS AND PRESENTATION

Introduction

Welcome to the fourth section of this unit on community diagnosis. In this section you will learn how to execute the survey and how to analyse and present the results.

Before you proceed, look at the objectives for this section.

Objectives

By the end of this section you will be able to:
- Describe the process of data collection
- Explain how data is analysed
- Describe the various methods of presenting data

Execution of the Survey

This is another important step in the process of community diagnosis. It requires just as much care as the planning stage. It involves going out to the field to collect information from the sample population you have selected. There are three stages involved in data collection.
These are:
1. Interviewing the respondents
2. Data collection
3. Data handling

You will now look at these stages in turn.

Stage One: Interviewing the Respondents
By the time you get to this stage, you have already developed the survey instruments, trained the interviewers on how to use these instruments and even pre-tested them. You do this in order to ensure that the correct standards are adhered to during the actual survey. Once the real survey begins, you should continue to work closely with the interviewers.

Your presence reassures them and they also get the opportunity to clarify issues that may arise. On your part, you get assured that the interviewers are continuing to follow the techniques you taught them.

When the interviewers approach a respondent, they should:

- Introduce themselves by name
- Show their identity cards for the activity
- Show their letter of permission to carry out the exercise
- Explain why they have come and the purpose of the survey
- Establish rapport with the respondent/s so that they can feel at ease with each other
- Ask if it is convenient to interview the person at that time
- Should the person refuse to cooperate, the interviewers should do their best to persuade such a person to agree

If it is convenient to interview the person at the time you have requested, give the client/family time to be comfortable and proceed. If not, ask for a more convenient time when this will be possible.

This must be within the prescribed period of the exercise as indicated in the permit. In which case the interviewer must return punctually as agreed upon with the family or individual.

If the person refuses to cooperate and remains adamant, the interviewers should politely thank the person for their time spent and proceed to the next interview. Sometimes people may refuse to respond to the question raised.

Remember the rights of the individual. The respondent has the right to refuse to participate in an interview or experiment or medication.

There are various reasons why people do not answer questions in a survey. These include:

- If the people were not informed of the survey, its objectives and when it would be performed
- If for some reason the person to be interviewed is temporarily away from home
- Lack of interest in cooperating or active opposition to the survey
- In order to reduce the incidence of such opposition from your sample group, you should always make sure that the community is well informed about the study. If the target respondent is temporarily away from home, the interviewer should make arrangements to return when he or she is in. People who lack interest need a clearer explanation and persuasion so that they can see how they will benefit from the exercise. Activists can be difficult; if they remain adamant just politely thank them and let them free. They are just exercising their rights. If you find that a large number of people in your group are non-respondents, you will need to do a random selection from that group and re-approach them.

  The results you get from the new sample will be representative of the entire non-respondent group. Compare the results with the original sample of all respondents and calculate the difference.

Stage Two: Data Collection

Interviewers should be advised to use a pencil when filling out forms so that it is easier to make corrections. They should not erase a wrong response. If a mistake is made, the incorrect response should be crossed out and the correct response marked above it. Incorrect responses should not be erased because it is possible that if the erasure is incomplete, the response might not be legible or might be confused with a different response. The interviewer should fill in the responses at the time they are given. No response should be filled in afterwards because the interviewer may remember the response incorrectly.

Ensure that every interviewer has all the tools they need to collect data such as tools for anthropometric measurements and laboratory specimen containers.

You should avail a convenient carrier for these tools and check the packs daily to ensure that any specimens collected were handled correctly. It is good to remind the interviewers to recheck their measurements before they leave the client to avoid mistakes. They should also check the forms before they leave the respondent in order to be sure that all relevant information is satisfactory filled in the appropriate space provided.

If the survey involves the collection of laboratory specimens, then you should make arrangements for their safe storage before they are transported to the appropriate place for analysis. Laboratory specimens need special care especially when handling, storing and transporting them because one lapse could cause the loss of an entire day's specimens.
At the end of the day, all the forms should be checked thoroughly by someone other than the interviewer. If data is missing it may be necessary for the interviewer to return the next day to collect it. At this stage it may be possible to begin tallying the results so that when the analysis begins all you have to do is add up the tallies instead of going through all the forms since the first interview
The appropriate time for data collection was already covered in the sub section on how to plan a survey. Can you remember what you covered?

- When the sample population will be available
- When the team will be available
- During an appropriate season when people are not too busy planting
- On days other than public holidays and weekends when people are less likely to be at home

During data collection, it is very important to ensure that there is quality control so that you do not end up with false or misleading conclusions.
To ensure quality data you should:

- Avoid bias when designing the questionnaire as explained earlier
- Provide an instruction sheet on how to ask certain questions and how to record answers
- Select interviewers with care
- Select and train the assistants carefully in all the procedures together with interviewers
- Involve them in the pre-testing phase
- Limit the number of interviews that interviewers can conduct in a day so that they do not become too exhausted
- Identify assistants to carry out quality checks everyday

This is the stage where you check data for completeness and organise it for analysis. The following guidelines will help you.

- Check to confirm that all the forms have been completed satisfactorily
- Ensure that questionnaires are numbered
- Identify one person to be responsible for storing data and specimens securely
- Record forms should be sequenced and stored with clear labels
- Make sure that all the information you need has been collected in a standard way
- Develop an insight into the possible ways of analysing data
- Ensure availability of any resources needed for analysis, such as a computer

Once you have collected the data, it is completely meaningless unless you can extract meaning through analysis.
You will now look at how to analyse the data.

Data Analysis

The data you obtain from the field is known as 'raw data'. In this state, it does not give much information and is therefore difficult to interpret. That is why it needs further work known as data analysis.
Data analysis is the separation and categorisation of numerical data into groups in order to understand its meaning. Statistical methods are used to do this because they:

- Summarise the data.
- Make inferences about the data. This means that data which has been gathered on a sample can be used to indicate what is probably happening to the entire population so as to make judgement about them.

The process of data analysis involves the following steps:

- Data cleaning
- Sorting or tallying
- Coding and entering data
- Analysis of results

These steps are covered in detail in module four unit three on Research in Nursing. You will now look briefly at them.

Data Cleaning

Data cleaning was covered earlier in the sub-section on data handling. Can you remember what was covered? In addition, you will also need to do the following:

- Find 'missing data'. If one question is missing information in the majority of the questionnaires, then you can ignore it from
the study.

- Correct mistakes committed by interviewers after confirming with them, for example, putting a tick against smoker instead of non-smoker.
- Exclude all inconsistent information if you can not verify its correctness.

Sorting and Tallying Data

Once you have collected data from the field, you need to organise it in a systematic manner that facilitates analysis. You do this by sorting and tallying the data.

Sorting is arranging raw data in groups or in a particular order. You should select a system of sorting which facilitates data analysis. For example, if you are collecting data on users of family planning, you may decide to sort your data into two groups, that is, users and non-users of family planning. If your questionnaire is made up of closed-ended questions, such as the yes and no type, then you can assign numbers to these questions. For example, 1 to Yes and 0 to No, and sort them accordingly. On the other hand, if your questionnaire has open-ended questions, then you need to categorise all the responses given and assign numbers to them.

Data which has been sorted or arranged into some order according to magnitude is called an array. The following tables show examples of raw data and arrayed data.

a table of raw data of ages in years of 25 patients seen in a survey.

2	23	28	11	3
15	7	13	8	21
6	15	5	16	13
1	3	2	1	2
27	24	3	6	2

a table of an array of the same data arranged in ascending order.

1	3	6	13	21
1	3	7	13	23
2	4	8	15	24
2	5	11	15	27
2	6	12	16	28

Raw and arrayed data are ungrouped. To help you group data you use a tally sheet.

Tallying is one of the methods used to help you organise data before you analyse it. You will already familiar with the tally sheets you used in the outpatient or MCH/FP clinic.

Tallying is the setting up of classes or clusters which are tied by a slanting stroke. Usually four vertical strokes are made then a fifth stroke is drawn through them to represent the fifth item. Each cluster represents specific identifiable characteristics of the specified data. This data is then presented using a frequency distribution table.

Frequency Distribution Table of the Ages of Patients seen at Health Centre X

Age in years	Tally	Number of patients	Percentage
0-4	IIIII IIIII	10	33
5-9	IIIII II	7	23
10-14	IIII	4	14
15-19	III	3	10
20-24	III	3	10
25-29	III	3	10
Total		**30**	**100**

In the frequency table, you can see how the number of patients has been tallied in the second column.

You will now look at data coding.

Coding and Entering Data

This involves the conversion of data into numerical codes which represent attributes or measurements of the variables. Coding eases the burden of calculation. Researchers recommend that the coding process should start with the preparation of a code book which describes in detail the codes assigned for each response category and item in the questionnaire. When coding data you should include as much information as you can. The use of computers has simplified the process of data coding and entry. Computers save time and increase the accuracy of results.

Analysis of Results

Once you sort and code your data you are now ready to analyse it. There are two types of analysis that are carried out on data.

These are:

- Qualitative analysis
- Quantitative analysis

Qualitative analysis is usually applied on data which can be counted but can not be measured,

such as, colour. It allows you to analyse the information in a systematic way in order to reach some useful conclusions and recommendations.
Quantitative analysis on the other hand, is usually applied to data that can be given a numerical basis or can be measured, fro example, age in years, weight in kilograms.
You will learn more about data analysis in module four unit three on research in nursing.

Data Presentation
Once you have grouped your data, there are many ways of presenting it. You have already covered the frequency distribution table with a tally sheet. The other ways of presenting data are:

- Tabular presentation
- Graphical presentation

All these forms will be discussed in detail in module four unit three on research in nursing.

You will now briefly look at them.

Tabular Presentation
This covers the various tables that are used to present data, for example, frequency distribution table and a contingency table. The presentation of data in a frequency table shows the classes and the frequency of each class.

Table of Weekly Dispensary Attendance

Age	Male	Female	Total	%
0-4	25	25	50	27
5-9	20	25	45	24.5
10-14	15	15	30	16
15-50	15	30	45	24.5
51+	5	10	15	8
All Ages	**80**	**105**	**185**	**100%**

Another type of table is known as a contingency table. It shows how two variables of the individuals in a survey relate to each other.

Graphical Presentation
This type of presentation makes the data you have collected more easily understood at a glance. It emphasises any fluctuations which may be present and tries to make the material as attractive to look at as possible. Graphical presentations are also useful for purposes of forecasting the future magnitude of a series of figures given according to time.

There are various types of graphical presentations, these include:

- Histogram
- Frequency polygon
- Bar graph
- Pie chart
- Maps

Graphs are a very familiar method of presenting information. They are more attractive to the eyes because even without looking at figures, you can easily see and appreciate the rise and fall in the figures presented and can tell when they are high or low. For example, the temperature chart that you maintain for inpatients is an example of a graphic presentation. Making graphs of monthly/weekly clinic attendees, epidemic diseases, hospital referrals or admissions is a useful practice that can help you to assess what you are doing and what needs to be done.

On a notepad write down what conclusions you would draw if the line on a graph:

- Goes up?
- Goes down?
- Remains the same?

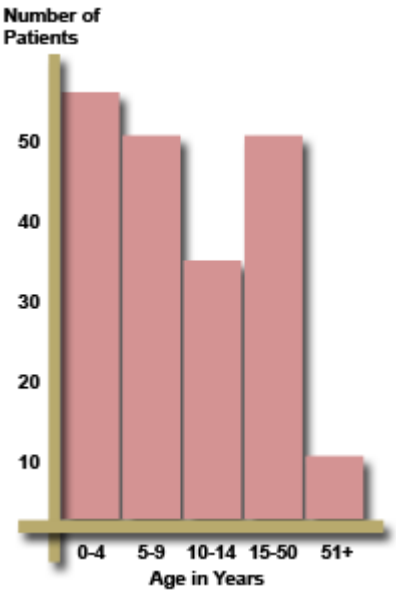
You should have included that a straight horizontal line on a graph indicates that there has been no change in the aspect being measured. When the line goes up, it indicates that there has been an increase for example, more people attending your outpatient services, when the line goes down, it means that the quantity is decreasing, for example fewer people attending your outpatient services.
According to Plews and Onyango (1987), the construction of a good graph requires the following:

- Clear, concise and unambiguous titles
- Clear and concise statement of units in which the figures are measured
- Correct vertical and horizontal scaling
- Statement of units used on vertical and horizontal axis
- A key/legend to explain the various features of a graph, if need be
- Correct graphing according to the scales specified on the horizontal and vertical axes

Some common types of graphs will now be described.

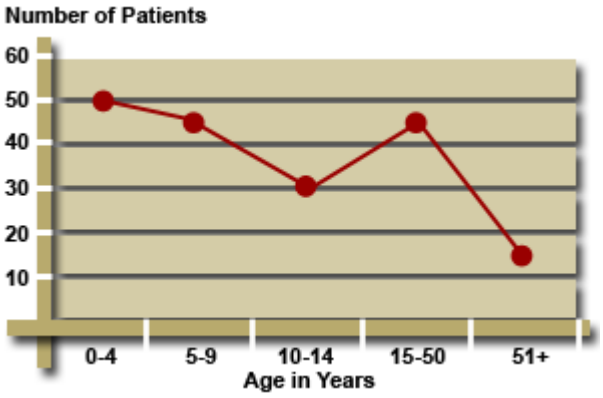
Histogram

This type of graph uses vertical blocks to represent class frequencies in a frequency distribution. You show the classes on the horizontal axis and the frequencies of the classes on the vertical axis. While the horizontal axis need not start from zero, the vertical axis must always start with zero. It is used to illustrate any data where the variable concerned changes with time.



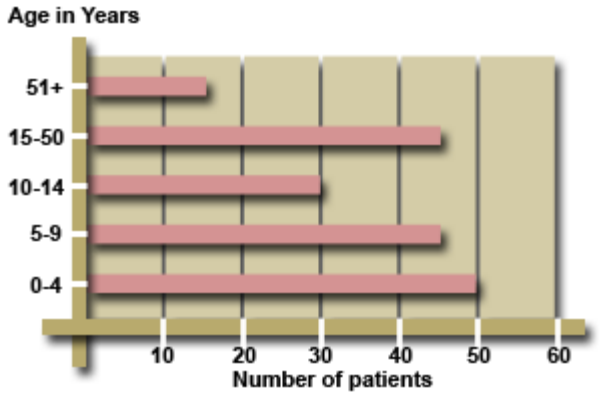
Frequency Polygon

A polygon is a many sided figure. A frequency polygon is derived from a histogram by joining the midpoints of the tops of the rectangles of the histogram in straight lines. The resultant figure does not have vertical bars but is made up of straight lines joining the different points on the graph. For comparison purposes, you can even draw two frequency polygons on the same graph paper.



Bar Chart

This is a graph which comprises a number of spaced rectangles whose length varies with the magnitude represented. The rectangles have the same width and may be vertical or horizontal. They are used to represent a large variety of statistical data, including data that can be represented in other ways. Bar charts can also be multiple, that is, representing two or more sets
of comparable data.



Pie Chart

You will have already come across pie charts in textbooks. It is basically a circle divided into sectors or pieces. Each piece of a pie chart represents a total percentage of a specific group or cluster. A pie chart is especially useful for dealing with data where actual numerical quantities are not so important. For example, when you want to find out what percentage of your population has access to water rather than the actual number. It is therefore used for comparisons based on percentages. For a pie chart to give a good visual impression, you should make sure that the total data is not sub divided into too many separate components. Ideally, the sectors should not exceed seven.

Maps
Maps are another effective way of presenting information. They are used to describe, for example, differences in the frequency of a disease in different areas.

SECTION 5: REPORT WRITING, DISSEMINATION AND COMMUNITY ACTION

Introduction

Welcome to the final section in this unit on community diagnosis. In the last section you learnt how to execute a survey, analyse and present data.

Usually after all the struggle of collecting and analysing data is over, you tend to feel like your job is complete. However, an important and time consuming part still lies ahead. That is, giving feedback, report writing and community action.

Objectives

By the end of this section you will be able to:

- Describe the different types of feedback and their targets
- Explain how to compile a preliminary, non-medical and medical report
- Explain the types of community action needed to implement survey recommendations

Feedback and Report Writing

Feedback means giving comments about how well or badly a person is doing in order to help them do better. It is a form of communication. You will recall that during the planning stage, it

was said that the community will only cooperate if they perceive some beneficial results from their cooperation. So after your survey is done, those in the community who cooperated with you are entitled to receive some form of feedback. They want to know what you found.
When planning feedback you need to consider to whom it shall be given and in what form. This will help you to deliver the message effectively and in a way that it is well understood by the people concerned.
All individuals in the community who are concerned with the health of the people are entitled to feedback. The feedback table below gives a summary of the different types of feedback, who should receive it and when.

Feedback Table

Targets of feedback	**Forms of feedback x= receives feedback**			
	Individual results	Preliminary report	Non medical report	Medical report
Patients population	X	X		
Non medical leadership - Local level - National level		x	X X	
Medical leadership - Local level - National level	X	X		X X
Medical professional				X
Timing of feedback	Immediate	Soon	Delayed	Delayed

You will now look at some of the types of feedback in this table.

Individual Results
The individuals who formed a part of your survey sample as well as those who provided you with specimens and tests deserve to be given feedback on your findings. You should tell them at the time of examination that they will be contacted later if anything abnormal is found. Those who you took specimens from or on whom you conducted tests should be told if anything abnormal was found. When giving such feedback you should be cautious not to arouse anxiety about harmless conditions.

You should only give feedback on those conditions that require treatment. If you diagnose a condition that requires treatment, you should start it at once or refer the person to the nearest health facility for follow-up care. If during the survey you find specific notifiable diseases you should report to the relevant authorities, such as the medical officer in charge.

Preliminary Report
This goes to the community in which the diagnosis was conducted in order to thank them for their cooperation. It is given soon after the field work is completed by arranging meetings for the people and their leaders. This report covers your general impressions of the community's health status as well as preliminary survey findings. Do not give specific information on this day, since analysis will not be ready yet. Give them information on obvious points like disease outbreak, hygiene, sanitation, attitudes, nutrition, practices and utilisation of health services.

You should promise them a more detailed report later. By giving them the findings of the report, you increase their awareness of their real health needs and how these can be solved.

Non-medical Reports
This report is less scientific and is usually produced for non-medical people. It comes out after full analysis has been done and

conclusions and recommendations have been formulated. It is an important report because its message can influence social and political leaders to start doing something about improving the health of the population.
According to Bennett F.J (1979), the contents of this report should cover the following aspects of the survey:

- The reasons for doing the community diagnosis
- The findings which help to define the situation. Here you select only those characteristics which describe the real characteristics of the health situation in this population. Often it is sufficient to describe findings in words.

  However if you feel that tables would be indispensable then they should be short and easy to understand. You can also use the graphical forms which were described earlier. They have been found to be very helpful in conveying survey findings at a glance
- The conclusions and recommendations you make should be of practical significance. You should leave out those that are of scientific or academic interest to be documented in the medical report. This report is a social or political tool to shed light on the improvements that need to be done in the community's health services. So make your recommendations practical.

Communities are made up of people with varying educational levels. Some are illiterate or are of low educational standards. Such people would benefit more from personal contact or a discussion type of feedback. That is why in our communities Barazas are commonly used to communicate matters to people. However, if you are dealing with a literate population you can disseminate the report through the mail or even the mass media that is newspapers, radio and television. Newspapers are a good medium because they have a wide coverage and people from elsewhere might also benefit from the report findings.
Lastly, you will look at the community diagnosis report also known as the medical report.

The Medical or Community Diagnosis Report
This is a detailed scientific report which provides an account of the planning and execution of the survey as well as the results. It should present the data you collected fully and adequately and give accurate interpretations of the analyses. Its dissemination can be done in a workshop setting and tailored to meet the needs of the various levels of health personnel who are invited.
A well written community diagnosis report is made up of distinct sections or components which fall under the following headings:

Title
Use a title that is short and simple and yet informative. The title of your survey report is important because at a glance it gives the reader information about what your survey was about and it also helps the librarian to index the book properly.

Table of contents

This is like a map which helps the readers to locating various sections of the survey report quickly and easily. It often contains chapter headings, main headings and sub headings with their corresponding page numbers.

Lists of tables and figures

This follows the same format as the table of contents and lists the titles of the tables, diagrams, graphs, charts used in the report and their corresponding page numbers.

List of abbreviations and acronyms
An abbreviation is a short form of a word, for example, Tb for tuberculosis. An acronym is a contraction formed by taking the first letter of several words, for example, HIV which stands for Human Immunodeficiency Virus. In this section of a report you give a list of all the abbreviations and acronyms you have used in the document with a full explanation of what they stand for. When using abbreviations in the body of your report, you should take note of the following rules:

- The first time you use an acronym or abbreviation you should write what it stands for in full
- Use only those abbreviations that your audience
  will understand
- Do not abbreviate days of the week or months

Acknowledgements
You should acknowledge all those who made it

possible for you to accomplish this task. In your list include:

- Names of individuals
- Organisations
- Institutions
- Administration
- Community

Introduction

This section gives the background to your study. It seeks to explain why the survey was undertaken and which questions it was designed to answer. It is written in the form of broad and specific objectives which also reflect on the purpose of the study. Usually before embarking on a survey one reviews the relevant literature. If you consulted any literature you should make reference to this fact in this section as it lends support to the arguments you put forward in the introduction

Aims and objectives of the study

Indicate both the broad and the specific objectives of your survey.

Good objectives should be 'SMART':

- Specific
- Measurable
- Attainable
- Realistic
- Timely

Materials and methods

Here you describe your survey design, techniques and the instruments or tools you used to collect the data. In particular, you include information about:

- The sources of the data collected that is the type of records, where they were found, and how complete they were. If the source of data was people, you should describe them and their characteristics, for example, were they from the same village, location.
- How interviewers were selected and trained.
- What percentages of the sample were formed by non-respondents and how their age and sex distribution compared to that of the sample?
- The methods of investigation you used to collect data, such as questionnaire, physical or laboratory examinations. It is useful to describe these in detail so as to guide other investigators who would like to replicate your study.

Limitations of study

This section calls for honesty and openness in admitting the difficulties you may have encountered. It helps other researchers not to make the same mistakes you made. This is the essence of learning and maturity. You are actually taking a step back to ask yourself the question 'If I was to do this survey all over again, what would I do differently?'

Some of the difficulties which are commonly encountered in surveys have to do with:

- Sampling methods
- Standardisation of tests and measurements
- Observation variation
- Incomplete records due to poor supervision

Results/ findings

This section deals with presentation of results in any one of the formats you covered earlier, that is, figures, tabular and graphical formats. It does not matter which format you choose as long as it brings out clearly those characteristics which you think are important. If you want to show the trend in certain age groups or time periods, then you may consider using a graphical form such as a frequency polygon. A list of figures or a table may be indicated if you want to describe in detail a distribution or size of characteristics. However, when presenting figures you should take note of the following:

- Do not use figures with several decimal places unless the precision of the measurement justifies this
- It is misleading to present percentages with one or more decimals if the sample size is small
- It is a good practice to present means and rates together with their standard error

Discussions

This is mainly your interpretation of data, a process in which logical thinking, judgement and common sense all play a major role. You will be asking questions such as how reliable and valid

are the observations, whether the figures are high or low, and if there are associations between variables which may indicate a causal relationship.

When interpreting your results it is often necessary to compare them with and refer to other studies on the same topic. In surveys which cover a variety of independent health problems this section may be combined with that of results.

Conclusions and recommendations

This is your brief summary of the essential findings and careful consideration of how the community health problem you have diagnosed can be reduced and/or controlled. You should also explain the causes of the health problems and how they can be prevented.

You need to describe what the community should and can do to control diseases for all concerned.

References
It is almost impossible to conduct a survey without consulting published and unpublished documents in the community. These could be hospital records, maps and others. You must give credit to authors of any work you quote from or refer to by listing them.

Generally a reference gives the name of the author, the year of publication of the document, the title of the book or paper and the publisher.

Appendices
These are attachments, which you may wish to annex to your report to help readers understand some statements appearing in the body of the report. These may include:

- A copy of the questionnaire used
- Statistical tables from data analysis
- A copy of the map if necessary
- Letters of approval to carry out the study

Once you have produced your reports and given feedback to all the concerned parties, the next and last step in the process of community diagnosis is the action phase. A community survey should lead to community action.

Remember:
To enhance the effect of your feedback, it must be rapid, personal, pragmatic, constructive and tactful.

Community Health Action

A community survey identifies a host of health problems that need to be addressed. It may have revealed a need for greater emphasis on MCH services or environmental sanitation. Therefore, you need to sit down with the community to prioritise and plan what you going to do about the identified health problems. In short, you need to mobilise them to take action.

Mobilse Community Action
You can mobilise the community through a number of interventions, namely:

- Making them aware of their problems and promoting primary health care
- Health education
- Immunisation
- Environmental improvement

You have already covered these interventions in great detail in different units and modules of this course. However, you will now briefly look at them from the perspective of community diagnosis.

Creating Awareness and Promoting Primary Health Care
As you will recall from the lesson on PHC in unit two of this module, the essence of the community based health care approach is to stimulate community interest and participation in health promotive, disease preventive and simple curative activities. For the community to participate effectively they require a number of support structures. These are:

- A multi-disciplinary or inter-sectoral team
  which includes health workers as well as experts from other sectors such as agriculture, water, energy, and so on.
- Establishment of community structures.
- A consensus of opinion between community and professionals. Research has shown that communities have the ability to not only identify their problems but also rank them in order of importance.

The only difference between them and professionals might be the way they determine the cause of the problem. While professionals see causation in scientific terms, communities may see it in terms of evil spirit. If you can succeed in making them see that in addition to

evil spirits poor latrine usage has something to do with the prevalence of intestinal parasites, then your job would be well done.
Structures that are in place to establish care of a community's health include the establishment of health committees as well as the selection of individuals for training as community health workers. The village health committees and community health workers play a very important role in the implementation of activities that have been agreed on. Your role as a community health nurse is to facilitate the process and guide them to work efficiently.

Health Education
Health education is not just about sending out posters and pamphlets to the community. It is about listening and finding out why people do things the way they do. It is about stimulating their interest in their health problems through discussion and sometimes by example. It is also about giving people information and helping them to set priorities and improve their own health.
Health education cannot be prescribed in doses! You will therefore need to target individuals, families and the community at large with health messages using the media that is available and affordable.

Remember:
Health education cannot be handed out to the community; it must be shared with them.
Immunisation

If the results of your survey indicated low immunisation coverage as one of the reasons behind the high morbidity and mortality rates among children, then you need to plan immunisation action. You will need to identify all non-immunised and inadequately immunised persons, and ensure that they receive immunisation. You will also need to ensure that you have a good supply of vaccines and that they are well maintained in order to preserve their viability and potency. Remember for your campaign to succeed you must plan it with community leaders.

Environmental Improvement
Most of the health problems found in our communities indicate the need for environmental improvement. Most surveys reveal need for housing improvement, construction of more latrines, protection of springs, and improvement of food storage. These require major education and motivation campaigns involving village health committees in order to get the necessary improvements in place.

The community must take action and the initiative to bring about the necessary changes. There is also need for intersectoral collaboration in order to bring in useful expertise from other sectors, such as agriculture.

UNIT SIX: SPECIAL HEALTH ISSUES

In this unit you will cover provision of health services for special groups of people.

This unit is composed of 4 sections:
Section One: Individuals and Groups with Special Health Needs.
Section Two: Disaster Management.
Section Three: School Health Programmes.
Section Four: Occupational Health Services.

Unit Objectives

By the end of this unit you will be able to:

- Identify individuals/groups who need special health services in the community and take appropriate action
- Mobilise and sensitise the community to respond appropriately in emergencies and disease outbreaks
- Manage school health programmes
- Identify occupational health hazards in the community and take appropriate action

SECTION 1: INDIVIDUALS AND GROUPS WITH SPECIAL HEALTH NEEDS

Introduction

In this section you will look at individuals and groups with special health needs. You will also look at the needs of people with hearing and visual impairment, children in need, the elderly, chronically ill patients, displaced persons, widows and widowers.

Objectives

By the end of this section you will be able to:

- Define the term disability
- Identify and manage individuals and groups in need of special health services
- Describe services available for people with special health needs

Definition of Disability

In life anything that stops a part of your body from functioning fully is known as impairment. There are many different types of impairments such as motor, sensory, and emotional or intellectual impairment.

How you would define the term 'disability'
A disability is a physical, emotional or mental injury or illness that is severe or permanent, that interferes with an individual's normal growth, development or ability to learn or work.

In this section you will see the words disability and impairment used interchangeably. Most disabilities start at birth or in childhood. Those that start later in life are often as a result of accidental injury. In many cases the loss of a function due to disability need not make a person useless.
Often disabled people have other faculties which they can put into good use and therefore be able to earn a living for themselves and their family. For example, blind people can work as telephone operators, those with disabilities affecting the legs can do any work that requires the use of their hands. In order to help them you will identify their abilities and modify the environment to avoid overtaxing them. You will also provide them with appliances and the appropriate apparatus, in order to develop their potential ability and compensate for the defect.

Types of Disabilities

List down various types of disabilities that are common in the community you serve.
The following are types of common disabilities:

Physical Disabilities

These include:

- Motor defects due to congenital causes such as missing limbs, trauma, cerebral palsy (spastics).
- Sensory defects such as blindness and deafness.
- Chronic illness, for example, epilepsy.

Mental Disability

Due to mental deficiency, these include:
mongolism, birth injuries, meningitis and emotional problems.