Unit 1. Introduction and Concepts in Community Health

1) Definition of Terms Used in Community Health

Community - a group of people who live in a defined geographical area, share common cultural values, norms, identity and are arranged in a social structure according to relationships

Health - a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity

Community health - a major field of study within the medical and clinical sciences which focuses on the maintenance, protection, and improvement of the health status of population groups and communities.

Community health aims at:

- To bring essential health services closer to the community members,
- Empower community members to initiate, implement and own activities promoting their health,
- To enhance community access to health care in order to reduce poverty, hunger, and child and maternal deaths,
- Achieving health for all through health and development interventions
- Improving health and environmental conditions,
- Achieving better quality of life,
- Helps to reduce health gaps caused by differences in income, education, race and ethnicity, location and other factors that can affect health.

Community health services include:

- Counselling and support services,
- Health promotion activities,
- Medical and nursing services,
- Dental and oral health,
- Prevention services such as water and sanitation, expanded program on immunization, child welfare services, safe motherhood,
- Other health related services including nutrition, physiotherapy, occupational therapy,
- Referrals and follow up.

Population coverage - the proportion of the population to which the service is available.

High risk groups - describe people who share behaviors that affect their chance of developing a disease.

Risk of diseases - This is health dangers that a disease is likely to cause. The following are some of the diseased that commonly causing health risks: Diabetes; heart disease; cancer; chronic lung; malaria; pneumonia; anemia; neurological; psychiatric diseases and injury; HIV and tuberculosis; Bilharzia (Schistosomiasis); and Cholera.

2) Need for Health Services

- Everybody need to be healthy. We therefore need to access health services.
- Access to comprehensive, timely and quality health care services is important for:
    - Promoting and maintaining health,
    - Preventing and managing disease,
    - Reducing unnecessary disability and premature death,
    - Achieving health equity for all,
    - Impacts on one's overall physical, social, and mental health status and quality of life.

- Components of access to health care needs:
    - **Insurance coverage** - Health insurance coverage helps patients gain entry into the health care system. Lack of adequate coverage makes it difficult for people to get the health care they need and, when they do not get care, burdens them with large medical bills. Kenya is piloting Universal Health Coverage (UHC) in some counties

    - **Health services** - These services can be categorized as **Curative** (treatment of patient when sick e.g. use of medicine, surgery etc.), **Preventive** (activities that control or stop diseases from occurring e.g. nutrition, immunization, family planning, safe motherhood, environmental sanitation, prophylaxis etc.), **Promotive** (activities that advocates for good health practices e.g. education, mobilization and sensitization etc.) and **Rehabilitative** (activities that brings back the damaged condition to normal e.g. physical treatment, occupational treatment, counselling, etc.)

    - **Timeliness of care** - Prompt health care seeking behaviors. We need to seek for health services immediately we feel unwell without waiting for the disease to complicate. Timely access to health services means "the immediate use of personal health services to achieve the best health outcomes. It involves:
        - Accessing a location where needed health care services are provided (geographic availability). Recommended distance to nearest health facility is less than 5 kilometers
        - Finding a health care provider whom the patient trusts and can communicate with (personal relationship)

- Barriers to accessing health services needs include:
  - High cost of care,
  - Inadequate or no insurance coverage,
  - Lack of availability of services,
  - Cultural beliefs, myths and misconceptions.

- These barriers to accessing health service needs can lead to:
  - Unmet health needs,
  - Delays in receiving appropriate care hence disease gets complicated,
  - Inability to get preventive services,
  - Financial burdens,
  - Unnecessary hospitalizations,
  - Death.

3) Demand for Health Services

- Individuals make choices about medical care. They decide on:
  - When to visit a doctor when they feel sick,
  - Whether to go ahead with an operation,
  - Whether to immunize their children,
  - How often to have checkups.

- The process of making such decisions can be complicated, because it may involve seeking advice from friends or authority from bread winners.

- Other people weigh risks and benefits, and even missing other types of consumption that could be financed with the resources used to purchase medical care.

- Every individual, family, community or entire population has a right to demand for essential and quality health services.

4) Primary Health Care (PHC)

Definition - "essential health care" that is universally made accessible to all individuals and families in a community through scientifically sound and socially acceptable methods and technology

The Alma-Ata Declaration of 1978 declared that "Everyone has the right to a standard of living and wellbeing of himself and of his family, including food, clothing, housing and medical care and necessary social services". It further identified primary health care as the key to the attainment of the goal of Health for All.

5) Problem Solving in Community Medicine

The following are examples of community problems:

- Adolescent pregnancy;
- Access to clean drinking water;
- Child abuse and neglect;

- Crime;
- Domestic violence;
- Drug use;
- Environmental contamination;
- Ethnic conflict;
- Health disparities;
- HIV/ AIDS;
- Hunger and poverty;
- Inadequate emergency services;
- Inequality and gender issues;
- Unemployment;
- Lack of affordable housing etc.

General steps for solving community problems

Step 1: Identifying the problem
Step 2. Define the problem by asking yourself what the problem is
Step 3. Determine the Root Cause(s) of the Problem
Step 4: Define Goals
Step 5: Develop alternative solutions
Step 6: Select a solution
Step 7: Implement the selected solution
Step 8: Evaluate the outcome

6) Millennium Development Goals

- The Millennium Development Goals (MDGs) are eight international development goals that were established following the Millennium Summit of the United Nations in 2000

- All 189 United Nations member states at the time committed to help achieve the following Millennium Development Goals by 2015:
    1. To eradicate extreme poverty and hunger
    2. To achieve universal primary education
    3. To promote gender equality and empower women
    4. To reduce child mortality
    5. To improve maternal health
    6. To combat HIV/AIDS, malaria, and other diseases
    7. To ensure environmental sustainability
    8. To develop a global partnership for development

7) Sustainable Development Goals (Global goals)

- In 2015 a set of Sustainable Development Goals (SDGs) replaced the Millennium Development Goals.
- The SDGs brings together three aspects of sustainable development - the economic, environmental and social
- It consists of 17 goals to be met by 2030. The goals are:
    1. End poverty in all its forms everywhere
    2. End hunger by achieving food security, nutrition and agriculture
    3. Ensure healthy lives and promote wellbeing for all at all ages
    4. Promote quality education and lifelong learning
    5. Achieve gender equality and empower all women and girls
    6. Ensure availability of water and sanitation for all
    7. Ensure access to affordable, reliable and modern energy for all
    8. Promote economic growth, employment and decent work for all
    9. Build infrastructure, industrialization and innovation
    10. Reduce inequality within and among countries
    11. Make cities and human settlements safe
    12. Ensure sustainable consumption and production patterns
    13. Take urgent action to combat climate change and its impacts
    14. Good use of oceans, seas and marine resources for sustainable development
    15. Protect, restore and promote ecosystems
    16. Promote peaceful societies, justice and accountability
    17. Strengthen global partnership

SDGs vs MDGs – what's new?

There are significant differences between the MDGs and SDGs, including:

- The SDG has brought all three aspects of sustainable development - the economic, social and environmental in a much more integrated way than the MDGs ever did.
- The new SDGs go much further than the MDGs by addressing the root causes of poverty and the universal need for development that works for all people.
- There were only eight MDG goals and while the SDGs has 17
- The SDGs apply to all countries whether rich or poor
- The SDGs will now finish the job of the MDGs, and ensure that no one is left behind

8) Determinants of Health

- **Economic determinants** - including income, employment and working conditions;
- **Social determinants** - including social support, safety in the home and community, participation in civic activities and healthy child development; education and literacy

- **Physical environmental determinants** - including the state of the natural environment, the presence of environmental tobacco smoke, availability of transportation and affordable and adequate housing; and

- **Other determinants** - such as personal health practices, health services and biology and genetic endowment.

9) Determinants of Community Health

- **Community development** - The community have control over factors that affect their lives

- **Group** - People who interact and share a common purpose or purposes.

- **Community Engagement** - is the process of working collaboratively with and through community

- **Cultural Influence** - Health behaviors are influenced directly by elements of one's culture.

- **Community Participation** - useful in addressing physical, interpersonal, and cultural aspects of individuals' environments.

- **Community Empowerment** – Mobilizing, organizing and enabling community members to take action, influence, and make decisions on their issues.
  Empowerment takes place at three levels:
    - Individual,
    - Organizational or group, and
    - Community levels.

- **Capacity Building** - Need for resources, knowledge, and skills

- **Community Organization** – This is enabling community groups to identify problems or goals, mobilize resources, and implement strategies for reaching goals they have set

10) Principles of Community Health

- Promoting health,
- Building individual and community capacity,
- Engagement and participation,
- Building relationships,
- Ownership,
- Facilitating access and equity,
- Demonstrating professional responsibility, accountability and sustainability.

11) Community Entry

- Refers to the process of initiating desirable relationship with community so as to win their interest

- It involves recognizing leadership in the community so as to interacting and working with them.

- Process involve:
    - Knock and enter upon response,
    - Introduce yourself to the chief elders and other local leaders,
    - Inform them of your work with them,
    - Ask for their permission and advice and state your mission e.g. getting information about the village or introduction of new health programme.
    - Thank them for their co-operation,
    - Identify contact persons .

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Unit 2. Communicable and Non-Communicable Diseases

1) Introduction to Communicable and Non-Communicable Diseases

Disease - A disease is an abnormal condition that negatively affects the function of part or organism, and that is not due to any external injury. A disease may be caused by external factors such as **pathogens** or by internal dysfunctions.

Pathogens (germs) are tiny organisms or microbes (living things) that may cause disease. We don't know what hit us until we have symptoms (runny nose, cough, sore throat, fever, etc.)

Although some microbes can make you sick or may even kill you, most are harmless, and some are extremely helpful. Microbes can be found virtually anywhere - in air, water, plants, animals and humans.

Broad examples of germs are:

- **Bacteria** - are one-cell organisms responsible for illnesses e.g. sore throat, urinary tract infections and tuberculosis.

- **Viruses** - Are smaller than bacteria. They depend upon a host to survive, grow, and reproduce. Viruses cannot live outside living cells. Viruses cause chicken pox, measles, flu, and many other diseases.

- **Fungi** - are multi-celled plant-like organisms. They thrive in warm, damp environments. Most fungi are not dangerous. Fungi causes diseases like athlete's foot, candidiasis.

- **Protozoa** - are one-celled organisms like bacteria. Protozoa also love moisture and often spread diseases through contaminated water. Some protozoa cause intestinal infections.

There are 4 types of disease:

Infectious diseases - disorders caused by organisms such as bacteria, viruses, fungi or parasites.

Deficiency diseases - caused by a lack of essential dietary elements and especially a vitamin or minerals e.g. scurvy.

Hereditary diseases - Are inherited. A specific gene from one or both parents lead to an abnormality e.g. sickle cell anemia.

Physiological diseases - a condition in which the organs in the body malfunctions and causes illness e.g. Asthma, Diabetes

Diseases can be classified in to **communicable** and **non-communicable** diseases.

A communicable disease - are the diseases which passes from one individual to another individual. They are generally caused by some bacteria, viruses or any other pathogens. For example, malaria, AIDS etc.

Non-communicable disease - is not transmissible directly from one person to another. Most are non-infectious, although there are some non-communicable infectious diseases.

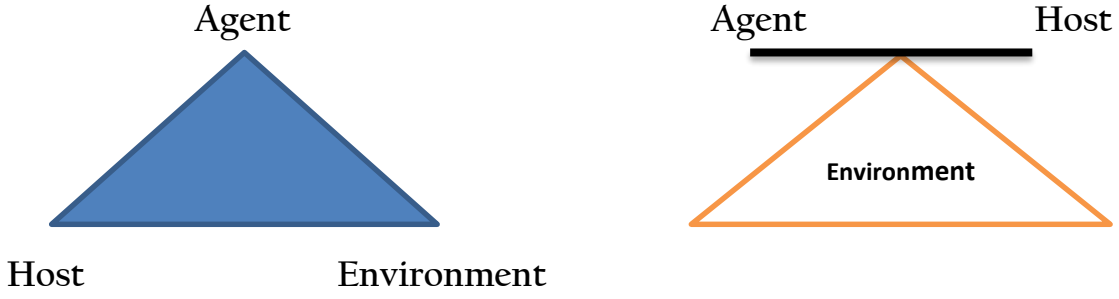
2) Epidemiologic Triangle Model of Disease Causation

The epidemiologic triangle or triad is the traditional model of infectious disease causation. It has 3 components: External **agent**; Susceptible **host**; **Environment** that brings the host and agent together.

Agent - is the pathogen. Are infectious microorganism i.e. virus, bacterium, parasite, or other microbe. *Agent factors* - These agents must be present for a disease to occur.

Host - is the living being that the bacteria, virus, protozoan, or other disease-causing microorganism normally resides in. A vector is an organism that helps transmit infection from one host to another. *Host factors* - Are factors that influence individual's exposure, susceptibility, or response to a causative agent. Age, race, sex, socio-economic status and behaviors (smoking, drug abuse, lifestyle, sexual practices and contraception, eating habits) are some of the many host factors which affect a person's likelihood of exposure

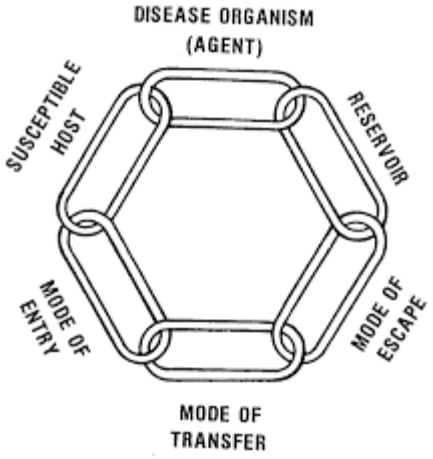
Environment - influences the agent, the host and the route of transmission of the agent from a source to the host. *Environmental factors* - Are factors which affect the agent and the opportunity for exposure. It includes physical factors such as geology, climate, physical surrounding, biological factors such as insects that transmit agents, socio-economic factors such as crowding, sanitation etc.



NOTE: Agents, host and environmental factors interrelate in a variety of complex ways to produce a disease in humans.

3) Transmission cycle

Is also called a **chain of infection**. It is made up of six different links: pathogen (infectious agent), reservoir, portal of exit, means of transmission, portal of entry, and the new host. Each link has a unique role in the chain, and each can be interrupted, or broken, through various means.



- **Transmission cycle** - occurs when the agent leaves its reservoir or host through a portal of exit, and is conveyed by some mode of transmission, and enters through an appropriate portal of entry to infect a susceptible host.

- **Reservoir** - is the habitat in which an infectious agent normally lives, grows and multiplies. This includes humans, animals and the environment

- Two types of human reservoir are:
    - **Persons with symptomatic illness** - Symptomatic persons are usually less likely to transmit infection widely because their symptoms increase their likelihood of being diagnosed and treated

    - **Carriers** - Asymptomatic carrier, a person or organism infected with an infectious disease agent, but displays no symptoms.

- **Environmental reservoir** - Plants, soil and water are also reservoir for some infectious disease. Many fungal agents such as those causing histoplasmosis live and multiply in the soil

- **Animal reservoir** - Infectious diseases that are transmittable under normal conditions from animal to humans are called zoonoses. Such disease includes brucellosis (cows and pigs), anthrax (sheep), plague (rodents), rabies (bats, dogs)

- **Portal of exit and entry** - Is the path by which an agent leaves the source host or enters. Tubercle bacilli and influenza viruses exit the respiratory tract; Schistosome through urine; cholera vibrios through feces etc.

- **Modes of transmission** - After an agent exits its natural reservoir, it may be transmitted to a susceptible host in numerous ways. These modes of transmission are classified as:
    - **Direct** (Direct contact and direct spread) - This is immediate transfer of the agent from a reservoir to a susceptible host by direct contact or droplet spread.

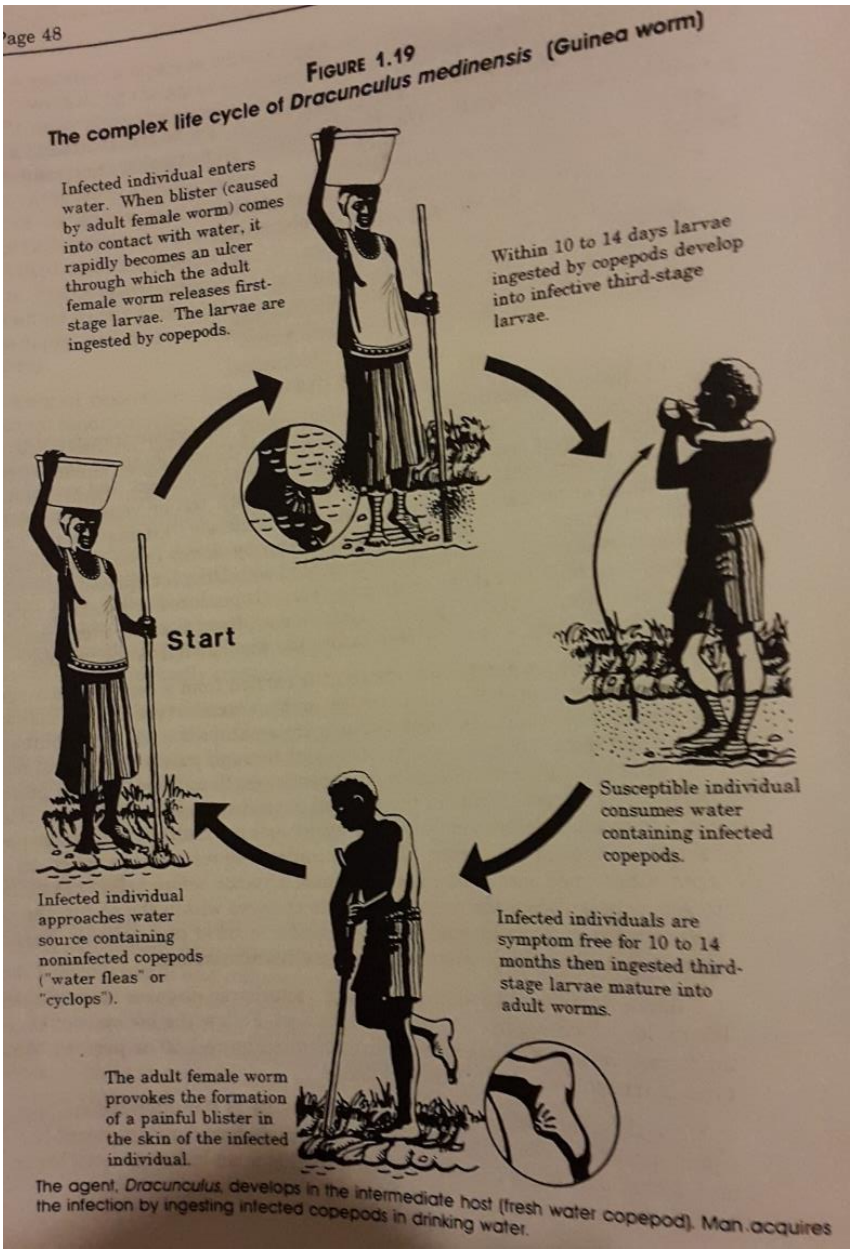
It occurs through kissing, skin-to-skin contact. Also refer to contact with soil or vegetation harboring infectious organisms.

- **<u>Indirect</u>** (Airborne, vehicle borne, Vector borne) – This can be mechanical or biologic. An agent is carried from a reservoir (a susceptible host) by suspended air particles or by animate (vector).

Most vectors are arthropods such as mosquitoes, fleas and ticks. This is in contrast of instances in which an agent undergoes part of its life cycle inside a vector before being transmitted to a new host.

When the agent undergoes changes within the vector, the vector is serving as both intermediate host and a mode of transmission. This type of direct transmission is called a biologic transmission

Vehicles that may directly transmit an agent include food, water, blood, handkerchiefs, bedding etc.



4) Principles of Managing Communicable Diseases

These are fundamental norms, rules or values that represent what is desirable and positive for an action. Management or communicable diseases has the following principles:

- Prevent any further occurrences of disease
- Limit the spread of the disease once it has occurred

- Reduce harm of disease to individuals
- Raise awareness on cause, clinical features and prevention of disease

5) Investigation and Control of Epidemics

An epidemic (outbreak) is rapid spread of infectious disease to a large number of people in a given population within a short period of time. The following are the steps of outbreak investigation:

- **Establish the existence of an outbreak and confirm it** – Check for possible increase in numbers than usual, interview cases and review laboratory findings.
- **Verify the diagnosis** - Review clinical findings and laboratory results. Visit and talk to some patients to get better understanding of the clinical features.
- **Case definition** - Establish a case definition (A case definition is a standard set of criteria for deciding whether an individual should be classified as having the disease or not). Classify case definitions as: definite case; probable case; possible case.
- **Case finding (Identify and count cases)** - Collect the following information about every case: Identifying information; Demographic information; Clinical information; Risk factor information.
- **Perform descriptive epidemiology** - Characterizing an outbreak by variables such as time, place and person. Draw **epidemic curve** (graph of disease occurrences over time) and **line list** (table summarizing information about the disease outbreak i.e. name, residence, date of onset, results)
- **Develop hypothesis** - Causes may have been suspected. However, a formal hypothesis can be generated by reflecting on the data.
- **Test hypothesis**: Use analytical epidemiology to assess exposure between cases and control (Ill and Non-Ill) You can use cohort study or case control.
- **Interventions** - Implement control and prevention measures.
- **Evaluate control measures** - Monitor incidences of cases once control interventions are put in place. This can be done through surveillance to assess the effectiveness of the interventions.
- **Documentation** - Document and communicate findings through oral briefs or written report.

6) Methods of Control and Eradication of Diseases

- There is an important distinction among the 3 terms, prevention, control, and eradication.

- **Control**: The reduction of disease incidence, prevalence, morbidity or mortality to a locally acceptable level. Example HIV

- **Elimination of infections**: Reduction to zero of the incidence of infection caused by a specific agent in a defined geographical area. Example: measles, poliomyelitis.

- **Eradication**: Permanent reduction to zero of the worldwide incidence of infection caused by a specific agent. Example: smallpox.

- **Extinction**: The specific infectious agent no longer exists in nature or in the laboratory. Example: none.

- The following are methods of controlling and eradication of diseases:
    - **Notification** - Once an infectious disease has been detected or suspected, the local health authority should be notified/alerted so that operational measures can be put in place
    - **Early diagnosis and treatment** - Treatment is done to the reservoir of source of the infection with aim of preventing the disease from spreading. This is done to prevent occurrences of disease.
    - **Reporting** – Use specific forms to report confirmed cases within 24 hours
    - **Isolation** - Separation of patients from other persons within communicable period of a particular disease. This is done to limit spread of disease.
    - **Quarantine** - Prohibition of movement of persons who have been exposed to the communicable disease to stop the spreading
    - **Disinfection** - Killing of infectious agent and reduce harm of the disease to an individual
    - **Immuno-prophylaxis** - Preventing disease by giving immunizing agents to raise herd immunity. This can be: **Passive** immunization (administering prepared antibodies) or **Active** immunization (administering antigens in form of vaccines and toxoid)
    - **Chemo-prophylaxis** - Use of drugs to prevent development or progression of infection
    - **Health education** - Create awareness to community about causes of disease, clinical features, mode of transmission, prevention, notification, immunization and hygiene
    - **Environmental sanitation** - Keeping hygiene of the surrounding
    - **Surveillance** - Continuous watching over occurrence and spread of disease through investigation, lab confirmation and data collection

7) Risk factors of communicable and non-communicable disease

A risk factor is any attribute, characteristic or exposure of an individual that increases the likelihood of developing a disease or injury. The following are risk factors of non-communicable diseases:

- **Modifiable behavioral risk factors** - Tobacco use, physical inactivity, unhealthy diet and the harmful use of alcohol increase the risk of NCDs.

- **Metabolic/physiological risk factors** - These behaviors lead to four key metabolic/physiological changes that increase the risk of NCDs: Raised blood pressure, Overweight/obesity, Hyperglycemia (high blood glucose levels) and Hyperlipidemia (high levels of fat in the blood).

Risks classification

- **High risk** - Exposure to the blood or body without appropriate personal protective equipment (PPE); Processing blood or body fluids of a person with Ebola without appropriate PPE or standard biosafety precautions; Direct contact with a dead body without appropriate PPE in a country with widespread transmission or cases; Having lived in the immediate household and provided direct care to a person with Ebola while the person was symptomatic

- **Some risk** - includes any of the following: Direct contact while using appropriate PPE

- **Low** (but not zero) risk includes brief proximity, such as being in the same room for a brief period of time, with a person with TB while windows are open

8) Prevention and control strategies

- Prevention of communicable and non-communicable diseases is in three levels:
    - **Primary prevention** - is aimed at maintaining a healthy population; i.e., preventing the occurrence of disease. It involves the healthy population.

    - **Secondary prevention** - (also called disease control) It aims to reduce the impact of a disease or injury that has already occurred by detecting and treating the disease.

    - **Tertiary prevention** - consists of rehabilitation after primary and secondary prevention has failed. It softens the impact of an ongoing illness or injury that has lasting effects.
- Secondary and tertiary prevention is aimed at the diseased or patient population.

9) Basic treatment

–as prescribed by a doctor

10) Community participation in disease control program

- This is the process of engaging the community to take active roles in controlling and preventing diseases in the locality.
- Community participation has value because of its positive effect on social relationships and community solidarity.
- The participation is determined by Political background, Community characteristics, Managerial capacity of the provider, Epidemiology of the disease.
- The following are purposes of community participation:
    - Make them responsible
    - Drives ownership
    - Makes the program sustainable
    - Skills capacity of the community members is build
- Community can participate in various ways:
    - Decision making
    - Resource mobilization
    - Voluntary workforce

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Unit 3. Disease Prevention, Control and Eradication

1) Definition of Disease Prevention

- Disease prevention is the process of stopping a disease (communicable or non-communicable) from occurring in an individual or in a population
- The process includes having knowledge about:
  - Cause of the disease
  - Predisposing factors
  - Modes of transmission
  - Disease characteristics and pattern of behavior
  - Establish disease preparedness
  - Response
- Purposes of disease prevention include:
  - Prevention is better than cure
  - Stop new cases of disease from occurring
  - Stop existing cases of diseases from spreading

2) Levels of Disease Control

- There are 3 levels of disease prevention: Primary, Secondary and Tertiary
- **Primary level** - It aims to prevent disease or injury before it ever occurs
  - This is done by preventing exposures to hazards that cause disease or injury, altering unhealthy or unsafe behaviors that can lead to disease or injury, and increasing resistance to disease or injury should exposure occur
  - Examples include:
    - legislation and enforcement to ban use of asbestos
    - Education about healthy and safe habits (e.g. eating well, exercising regularly, not smoking)
    - Immunization against infectious diseases
- **Secondary level** - This level aims to reduce the impact of a disease or injury that has already occurred.
  - This is done by:
    - Detecting and treating disease or injury as soon as possible to halt or slow its progress
    - Encouraging personal strategies to prevent re-injury or recurrence
    - Implementing programs to return people to their original health and function
  - Examples include:
    - Regular exams and screening tests to detect disease in its earliest stages (e.g. mammograms to detect breast cancer)

        - Daily, low-dose aspirins and/or diet and exercise programs to prevent further heart attacks or strokes

- **Tertiary level** - This level aims to soften impact of an ongoing illness/injury that has lasting effects.
    - This is done by helping people manage long-term health problems and injuries (e.g. chronic diseases, permanent impairments) in order to improve as much as possible their ability to function, their quality of life and their life expectancy.

    - Examples include:
        - Cardiac or stroke rehabilitation programs, chronic disease management programs (e.g. for diabetes, arthritis, depression, etc.)
        - Support groups that allow members to share strategies for living well
        - Vocational rehabilitation programs to retrain workers for new jobs when they have recovered as much as possible.

3) Disease Prevention Activities

Routine screenings

- It aids with the early detection of a chronic disease when patients are asymptomatic.
- It is done to detect conditions such as: Cervical cancer, Breast cancer, High cholesterol, Prostate cancer, Diabetes, Obesity, High blood pressure etc.

Regular physical activity

- Regular physical activity has the ability to help prevent high blood pressure, stroke, arthritis, diabetes, high cholesterol, and heart conditions.

- Exercise helps in:
    - Lowering the risk of developing high blood pressure
    - Aiding in the maintenance of a healthy weight
    - Promoting overall psychological well-being
    - Reducing anxiety and depression
    - Helping build and maintain healthy joints, muscles, and bones
    - Lowering the risk of developing certain types of cancers
    - Reducing the risk of type 2 diabetes
    - Lowering the risk of premature death from heart disease or other health conditions

Healthy diet

- Diet help prevent chronic diseases
- Aspects of a healthy diet that should be addressed include:
    - ✓ Ensuring consumption of vegetables and fruits to help reduce the risk of chronic diseases and aid in weight control, which can also further reduce health risks.
    - ✓ Reducing the intake of saturated fats to help reduce cholesterol levels
    - ✓ Limiting excessive caloric intake

Education for disease prevention

- Health education helps people (including patients) understand their conditions and make informed decision

4) Simple Things You Can do to Prevent Illness

- Keep immunizations up to date
- Wash your hands often
- Be aware of what you eat, and be careful how you prepare it
- Use antibiotics exactly as prescribed
- Report to your doctor any worsening infection that does not get better after you take a prescribed antibiotic
- Be cautious around wild and domestic animals that are not familiar to you
- Avoid areas of insect infestation
- Avoid unsafe unprotected sex and injection drug use
- Stay alert to disease threats when you travel
- When sick, allow yourself time to heal and recover

5) The Strategic Directions to Disease Prevention

- The goal of the National Prevention Strategy is to increase the number of people who are healthy at every stage of life.
- The strategy provides guidance to improve the nation's health to achieve four broad strategic directions:
    - **Building healthy and safe community environments** - Prevention of disease starts in our communities and at home; not just in the doctor's office.
    - **Expanding quality preventive services in both clinical and community settings** - When people receive preventive care, such as immunizations and cancer screenings, they have better health and lower health care costs.
    - **Empowering people to make healthy choices** - Policies and programs can make healthy options easy and affordable choice, and when people have access to actionable and easy-to-understand information and resources, they are empowered to make healthier choices.
    - **Eliminating health disparities** - By eliminating disparities in achieving and maintaining health, we can help improve quality of life for all.

6) Factors Hindering Disease Prevention

- **Ecosystem** - Environment is where man, pathogens (virus, bacteria, fungi and protozoa) live. The interaction between man with environment enable transfer of germs to human system

- **Difficulties in changing behavior**- To prevent disease we increasingly ask people to begin do things that they have not done previously, to stop doing things that they have been doing for years and to do more of some things and less of others

- **Pattern of disease rate** - Some groups often have a characteristic over time even though individuals come and go from these groups. If groups have different rates over time, there may be something promotes or discourages disease among individuals in those groups

- **Socio-economic status**- A consistent finding dated from the twelfth century, is that people in the lowest socioeconomic groups have the highest rates of morbidity and mortality, whether the socioeconomic status was studied in relation to education, income, or occupation: the lower the level the higher the death and morbidity rate.

- **Gender** - One of the most well-established facts among students of health and disease is that men have higher mortality rates than women. This excess of male deaths occurs at every age and for every major cause for which comparison is possible.

- **Culture and myths** -There are some cultures that are opposing health prevention measures such as child immunization.

- **Political challenges** - Un favorable political situation will hinder disease prevention processes

- **Taxation and cost issues** – High tax in procuring vaccines may increase cost of immunization services

- **Demographic issues** - A growing elderly population puts more strain on health and social services. A significant number of people now spend a quarter of their lives as pensioners retired from working life

- **Personal barriers** - Cost and quality, lack of information, exercise and social class

- **Administrative barriers** – Differences in administrative conditions may make disease prevention become a challenge

7) Health Education

- This is any combination of learning experiences designed to help individuals and communities improve their health, by increasing their knowledge or influencing their attitudes.

- A level of education plays a major role in health education. Different levels of education have different levels of perception and understanding

- Target audiences are those that the education is intended for. They can be:
    - Primary target audience – people who are directly affected
    - Secondary target audience – people who are indirectly affected
    - Tertiary target audience – people who are indirectly affected and can influence policy

- Some of the education outlets in the community include chief's baraza, churches, schools, social places, boda-boda terminals etc.

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Unit 4. Community Diagnosis

1) Definition of Terms

- **Community** - a group of people who live in a defined geographical area, share common cultural values, norms, identity and are arranged in a social structure according to relationships

- **Diagnosis** - is the identification and confirmation of a problem

- **Community diagnosis**:
  - Refers to the identification and quantification of health problems in a community with a purpose of defining those at risk or those in need of health care.
  - This is a comprehensive assessment of health status of the community in relation to its social, physical and biological environment
  - According to WHO definition, it is a quantitative and qualitative description of the health of people and the factors which influence their health. It identifies problems, proposes areas for improvement and stimulates action

2) Community Sub Systems

- A community is a whole entity that functions because of the interdependence of its parts or subsystems.
- Community sub systems include:
  - Socio-demographic characteristics
  - Vital statistics
  - Values/beliefs/religions
  - Physical environment
  - Safety and transportation
  - Politics and government
  - Health and social services

3) Purposes of Community Diagnosis

- Community diagnosis is a foundation for improving and promoting the health of community members.
- Its role of is to identify factors that affect the health of a population and determine the availability of resources within the community to adequately address these factors.
- The purposes of community diagnosis are:
  - Define existing problems and analysis health status in the community

- Determine available resources, set priorities for planning, implementing and evaluating health action, by and for the community.
- Assess attitudes toward community health services and issues
- Identify priorities, set goals, and determine courses of action to improve the health status
- Establish an epidemiologic baseline for measuring improvement over time
- To act as a data reference
- To provide an overall picture of the local community and the residents' concerns
- It helps to find the common and hidden problems or diseases, which are troublesome to the people and are easily preventable in the community.
- It helps to access the group of underprivileged people who are unable to use the available facilities due to poverty, prevailing discriminations or other reasons.
- It helps to find the real problems of the community people which might not have perceived by them as problems.

Framework for conducting a community diagnosis

4) Types of Information in Community Diagnosis and Intervention Sources

- The information collected in a community diagnosis is called health indicators
- Characteristics of indicators:
  - **Valid,** i.e., they should actually measure what they are supposed to measure;
  - **Reliable** and objective, i.e., the answers should be the same if measured by different people in similar circumstances;
  - **Sensitive**, i.e., they should be sensitive to changes in the situation concerned,
  - **Specific**, i.e., they should reflect changes only in the situation concerned,
  - **Feasible**, i.e., they should have the ability to obtain data needed, and;
  - **Relevant**, i.e., they should contribute to the understanding of the phenomenon of interest.

- Indicators for community diagnosis can be classified as follows:
  - Mortality indicators;
  - Morbidity indicators
  - Disability rates
  - Nutritional status indicators
  - Health care delivery indicators
  - Utilization rates
  - Indicators of social and mental health
  - Environmental indicators
  - Socio-economic indicators
  - Health policy indicators
  - Indicators of quality of life

Mortality indicators are: o Crude death rates o Specific death rates: age/disease o Expectation of life o Infant mortality rate o Maternal mortality rate o Case Fatality rate	**Morbidity indicators are**: o Incidence and prevalence o Notification rates o Attendance rates: out-patient clinics or health centers. o Admission and discharge rates o Hospital stay duration rates
Disability indicators are: o No. of days of restricted activity o Bed disability days o Work/School loss days due to disability o Expectations of life free of disabilities	**Nutritional indicators are**: o Anthropometrics measurements o Height of children at school entry o Prevalence of low birth weight o Clinical surveys: Anemia, Hypothyroidism, Night blindness

Health care delivery indicators are: o Doctor / Population ratio o Doctor / Nurse ratio o Population / Bed ratio o Population / per health center	**Utilization indicators are**: o Proportion of infants who are fully immunized in the 1st year of life i.e. Immunization coverage. o Proportion of pregnant women who receive ANC. o Hospital-Beds occupancy rate. o Hospital-Beds turnover ratio
Social/mental health indicators are: o Suicide & Homicide rates o Road traffic accidents o Alcohol and drug abuse	**Environmental health indicators are:** o Measures of Pollution o The proportion of people having access to safe water and sanitation facilities o Vectors density
Socio-economic indicators are: o Rate of population increase o Per capita income o Level of unemployment o Literacy rates - females o Family size o Housing condition e.g. No. of persons per room	**Health policy indicators are**: o Proportion of resources spent on health services. o Proportion of funds spent on health related activities. o Proportion of total health resources devoted to primary health care

5) Community Diagnosis Process/Steps

Implementation of community diagnosis takes stages:

- **Initiation stage**
  - Set up a dedicated committee or working group to manage and coordinate the project.
  - The committee should involve relevant parties such as government departments, health professionals and non-governmental organizations.
  - Identify the available resources to determine the scope of the diagnosis.
  - Develop themes and questions on what should be surveyed
  - Develop a tool (Key informant interview, Focus group discussion guide)
  - Make a field plan.

- **Data collection and analysis stage**
  - Collect both quantitative and qualitative data.
  - Population census and statistical data (e.g. population size, sex and age structure, medical services, public health, social services, education, housing, public security and transportation, etc.) can provide background of the district.
  - Collect community data by conducting surveys through self-administered questionnaires, face to face interviews, focus groups and telephone interviews.
  - The sampling method should be carefully designed and the sample size should be large enough to provide sufficient data to draw reliable conclusions.
  - Analyze and interpret the data.
  - Here are some practical tips on data analysis and presentation:
    - statistical information is best presented as rates or ratios for comparison
    - trends and projections are useful for monitoring changes over a time period for future planning
    - local district data can be compared with other districts or the whole population
    - graphical presentation is preferred for easy understanding

- **Diagnosis stage**
  - Diagnosis of the community is reached from conclusions drawn from the data analysis.
  - It should preferably comprise three areas:
    - Health status of the community
    - Determinants of health in the community
    - Resources for healthy community development

- **Dissemination stage**
  - The production of the community diagnosis report is not an end in itself
  - The target audience for the community diagnosis includes policy-makers, health professionals and the general public in the community.
  - The report can be disseminated through the following channels:

- ✓ Presentations at meetings of the health boards and committees, or forums organized, local community groups and the general public
- ✓ Press release
- ✓ Thematic events (such as health fairs and other health promotion programmes)

6) Approaches of Conducting Community Diagnosis

- Community diagnosis or community based research can be conducted using various approaches such as Participatory Rural Appraisal (PRA), expert presentation and testimony etc.

- The following are principles of carrying out a community based research:
  - ✓ **Community situated** -begins with a research topic of practical relevance to the community (as opposed to individual scholars) and is carried out in community settings.
  - ✓ **Collaborative and partnership** -community members and researchers equitably share control of the research agenda through active and reciprocal involvement in the research design, implementation and dissemination.
  - ✓ **Knowledge and action-oriented** -the process and results are useful to community members in making positive social change and to promote social equity.
  - ✓ **Recognizes** community as a unit of identity
  - ✓ **Builds on strengths** and resources within the community
  - ✓ **Involves long term commitment** by all partners

- **Participatory Rural Appraisal**
  - Process that incorporate knowledge and opinions of rural people in planning and managing community programs
  - The following are principles of PRA
    - Participation
    - Flexibility
    - Teamwork
    - Systematic
  - Methods and techniques
    - **Mapping** - Take a group on a walk through the community, and let them draw a map of the area. Let the map include communal facilities, personal and family buildings, assets and liabilities.
    - **Models** - If the community members add sticks and stones to a map scratched onto the ground, they are making a simple model: a three dimensional map. As you watch them, note if some facilities are made

before others, if some are larger in proportion than others. This will give you some insight into what issues may be more important than others to the participants. Maps and models can later lead to transect walks, in which greater detail is recorded

- **Community Inventory** - The process of making the community inventory is sometimes called semi structured interviewing. It assesses the strengths and weaknesses of the community. Your job is not to create the inventory, but to guide the community members to construct it as a group.

- **Focus group discussion** - FGD is useful to collect a range of sensitive information from the community members. It involves about 8 participants. There will be a facilitator to moderate the discussion and there will be a note taker. People sit in a semicircular manner.

- **Preference ranking** - A community may have many issues that they need to address. Preference ranking will enable them select the most important issue to address

- **Wealth ranking** - This is a method of making the community categorize poverty and wealth. The following questions may be used: Who is perceived to be poor? Who is perceived to be wealthy?

7) Roles of Households and Communities

- What are the roles of the following in community diagnosis? {***Give as group work***}
    - Individual
    - Family
    - Institutions
    - Leaders

8) Evaluation of Community Diagnosis

- It is advisable to carry out evaluation after completing the community diagnosis.
- The following are the importance of evaluating community diagnosis process:
    - Identification of what diagnostic approaches that worked best versus those never worked

    - It provides answers to the following questions:
        - Did the diagnosis reveal the hidden problem in the community?
        - Was the process interfered with by biasness?
        - Were there missing responses in the questionnaires?
        - Was the correct sample size used?
        - What is the accuracy level of the responses?
        - What can be improved in future diagnosis processes?

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END

Unit 5. Community Health Survey

1) Definitions

- **A survey** - is defined as a brief interview or discussion with individuals about a specific topic

- **Community survey** - is a way of asking group or community members what they see as the most important needs of that group or community.

- **Questionnaire** - is a research instrument consisting of a series of questions for the purpose of gathering information from respondents.

- **Evaluation** - is a systematic collection of information to determine status of achievement, progress, effectiveness, effects , outcome and impact

2) Reasons for Carrying Out a Survey

– The following are reasons for carrying out a survey:

- Gather information about residents, their opinion, attitude and knowledge
- Measuring behaviors and population characteristics
- Solicit community reaction to policies, proposals and solutions
- Assessing effectiveness of program, facilities and services
- Make community aware of problems and their effects
- Provide opportunity for communities to influence public decisions

– When can you do a community survey?

- When your program is just starting out
- When there is doubt as to what the most important needs are
- When your group members disagree on point among themselves
- When you need donor funding
- When the community asks you to do it
- When you want to be sure of community support for whatever you choose to do

3) Types of Surveys

– Survey can be of the following types

- **Questionnaire survey**
  - ✓ There is no direct contact between the researcher and the respondents
  - ✓ The questionnaires can be mailed, self-administered or group administered

- **Interview survey**
  - ✓ There is direct contact between the researcher and the respondents
  - ✓ These can be through personal interviews, telephone interviews or FGD

- **Cross-sectional survey**
  - ✓ Collects information from a sample that has been drawn from a fixed population
  - ✓ Information is collected at one point of time
  - ✓ It collects information such as community needs, attitude and practice, program evaluation

- **Longitudinal survey**
  - ✓ Data is collected at two or more times
  - ✓ There are 3 types of longitudinal surveys:
    - **Trend** – trends in same population over time
    - **Cohort** – changes in a group by common characteristics
    - **Panel** – changes in same population over time

4) Planning a Survey (Process of Conducting a Survey)

– Good surveys start with clear theory, then the translation of theory into sensible survey questions, pre-testing and revision of questions, development and pre-testing of the survey instrument, sampling, data gathering, and, finally, data analysis. The processes are:

- **Define the purpose of the survey**
  - ✓ Decide on your goals and objectives
  - ✓ Get answers to the following questions:
    - What outcome do you expect from the survey?
    - What will you know after you have conducted the survey?
    - Do you have a particular audience in mind?

- **Identify the participants**
  - ✓ Decide on the participants who represent the entire population
  - ✓ Define the inclusion and exclusion criteria to help you get the most required participants

- **Design the methodology for conducting the survey**
  - ✓ Decide on procedures for the survey i.e. self-administered questionnaire or interview
  - ✓ Decide on which questions to ask
  - ✓ Decide on the structure of questions (open questions, closed questions, matrix table questions, and single- or multi-response questions)
  - ✓ Develop the tool and pretest them
  - ✓ Decide on the number of people you will survey (sample size)

  - ✓ Consider the following points when constructing a survey tool
    - Open ended questions with probes
    - Simple and brief questions
    - Avoid closed questions

- Avoid leading questions
- Start with most easy questions
- Make personal questions last
- Each question to address one issue
- When writing the questions, keep the language very simple and avoid ambiguity or double negations.
- Make questions specific
- Ask questions in a logical order
- Construct response categories carefully – let it not be too long
- Provide clear and sufficient instructions or directions including reasons for the survey

✓ Note the following errors that may lead to inaccuracy when constructing a survey tool

- Unclear objectives
- Questions not matching the survey objectives
- Questions are ambiguous
- Tool doesn't provide adequate space for data entry
- Questions are not well numbered

- **Identify the participants**
  - ✓ Decide on who you want to participate in the data collection (enumerators)
  - ✓ Invite the enumerators and train them on the tools
  - ✓ Assign them responsibilities

- **Schedule the survey**
  - ✓ Agree on the number of days the survey will take
  - ✓ Decide on the starting date
  - ✓ Ensure the survey is completed within the specified time

- **Conduct field work**
  - ✓ Distribute survey forms. As they are returned, track the number completed.
  - ✓ Gather your responses by collecting the data

- **Analyze the results**
  - ✓ Analyze your date according to your objectives
  - ✓ There are several software packages available for data analysis (Epi-info, SPSS, SAS, STATA, RA)
  - ✓ Present the analyzed report in Narratives, Graphs, Charts, Tables or Pictures

- **Write a report**
  - ✓ Write a report explaining your findings
  - ✓ A successful survey will provide the answers to the questions you had
  - ✓ Use proper report writing layout:

    - Make a brief summary (abstract) of the report
    - Abstract- provides a one paged summary of the survey report in terms of:
      - Title, authors particulars and introduction
      - Methodology
      - Key findings
      - Recommendations

    - A detailed report is voluminous and contains the following:
      - Title page (table of content, acknowledgements, list of abbreviations, executive summary/preface or abstract)
      - Chapter1 – Background and introduction
      - Chapter2 – Literature review
      - Chapter3 – Methodology/data collection process
      - Chapter4 – Findings/data results and interpretations
      - Chapter5 – Discussions of the findings using your own thoughts and opinion
      - Chapter6 – Conclusions and recommendations – this can also include detailed implementation plan
      - Reference

5) Biased Samples and Response Rate in Relation to Survey

– Biased sample means a sample has some favors on a particular subject

- The following are causes of biasness:
  - ✓ **Unrepresentative sample** - Bias often occurs when the survey sample does not accurately represent the population. It is also called selection bias.
  - ✓ **Under coverage** - occurs when some members of the population are inadequately represented in the sample
  - ✓ **Nonresponse bias** - Sometimes, individuals chosen for the sample are unwilling or unable to participate in the survey.
  - ✓ **Voluntary response bias** - Voluntary response bias occurs when sample members are self-selected volunteers, as in voluntary samples
  - ✓ **Measurement Error** - A poor measurement process can also lead to bias
  - ✓ **Response bias** - refers to the bias that results from problems in the response process. Some examples of response bias are given below:

- **Leading questions** - The wording of the question may be loaded in some way to unduly favor one response over another.

- **Social desirability** - Most people like to present themselves in a favorable light, so they will be reluctant to admit to unsavory attitudes or illegal activities in a survey, particularly if survey results are not confidential. Instead, their responses may be biased toward what they believe is socially desirable.

- Biased sample can be eliminated by applying random sampling procedures

– Response rate refers to the number of people who answered the survey divided by the number of people in the sample. It is also called completion rate or return rate. It is usually expressed in form of percentage

- The following are ways of increasing response rate:
  - ✓ Offering an **incentive** to the participant, for example, you can offer a gift, the chance of winning something in a lottery, a donation to charity, or a point's accumulation system where participant can save up points that can be exchanged for gifts.

  - ✓ Promising to **share the results** with your participants.

6) Evaluation of Community Survey

– Evaluation is an assessment of something (a project/service or activity) to determine its worth, fitness.

- It can be done before starting a project **(Formative)** or after completion of the project **(Summative)**

- The reasons/purposes/uses for evaluation are:
  - Assist an organization to know whether aim of a program, project or any other intervention has been realized
  - Helps in decision-making
  - Ascertain the degree of achievement in regard to the aim, objectives and results of any action that has been completed.
  - Assist in the identification of future change
  - Determines if specific program strategies were implemented as planned
  - Bring focus on program implementation
  - Helps to draw conclusions about five main aspects of the intervention:
    - ✓ Relevance
    - ✓ Effectiveness
    - ✓ Efficiency - cost-benefit
    - ✓ Impact
    - ✓ Sustainability

– Monitoring is a systematic and routine collection of information from projects and program.

- The purposes of monitoring include:
  - Learn from experiences to improve practices and activities in the future;
  - Have internal and external accountability of the resources used and the results obtained
  - Take informed decisions on the on-running actions

– Monitoring and evaluation uses indicators for measurement and in drawing conclusions
  - ✓ Indicators are statistics used to measure current conditions as well as forecasting or predicting trends. They measure change over time. Indicators can be:
    - **Input** – measures efforts put in
    - **Process** – measures procedures
    - **Output** – measures immediate results
    - **Outcome** – measures changes that comes as a result of the outputs

  - ✓ Monitoring and evaluation is implemented through a logical framework (commonly known as log-frame)

  - ✓ The monitoring and evaluation log frame include:
    - Objectives of the program
    - Activities implemented
    - Measurable indicators
    - Means of verification

7) Feedback of Community Survey

- In any survey, there must be feedback

- A survey feedback is a process in which community members:
  - Receive feedback on the results
  - Take appropriate actions to address the critical needs and concerns

- The objectives of survey feedback are:
  - To assist the organization in diagnosing its problems and developing action plan for problem-solving.
  - To assist the group members to improve the relationships through discussion of common problems.

- The following are the processes of survey feedback:
  - **Data collection** - The first step in survey feedback is data collection usually by a consultant based on a structured questionnaire.

- **Feedback of Information** - After the data are analyzed, feedback is given to the persons who have participated in the fulfilling up of questionnaire. The feedback may be given either orally or in a written form. In oral system of feedback, it is provided through group discussion or problem-solving sessions conducted by the consultant.

- **Follow-up action** - Survey feedback programme is not meaningful unless some follow-up action is taken based on the data collected. One such follow-up action may be to advise the participants to develop their own action plans to overcome the problems revealed by the consultant.

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END

Unit 6. Community Strategy

1) Definitions of Terms

- **Health** - a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity

- **Community** - A group of people living together in same geographical region, and share common characteristics such as cultural norms, values and identity

- **Household** - It consists of one or more people who live in the same dwelling and also share at meals or living accommodation, and may consist of a single family or some other grouping of people. A single dwelling will be considered to contain multiple households if either meals or living space are not shared.

- **Disease burden** - A measurement of the gap between a population's current health and the optimal state where people attain full life expectancy without suffering major ill-health

- **Health behavior** - Any activity undertaken by an individual, regardless of actual or perceived health status, for the purpose of promoting, protecting, or maintaining health

- **Social determinants of health** - The social determinants of health are mostly responsible for health inequities, which are the unfair and avoidable differences in health status

- **Primary health care** - Essential health care based on practical, scientifically sound, and socially acceptable methods and technologies made universally accessible to individuals and families in the community through their full participation, and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination

- **Health development** - The process of continuous, progressive improvement of the health status of individuals and groups in a population

- **Community development** - Process through which a group of people collectively identify and address health issues, using both internal and external resources. Usually, community development involves use of participatory approaches and methodologies

- **Advocacy** - A combination of individual and social actions designed to gain political commitment, policy support, social acceptance, and systems support for a particular activity

- **Health promotion** - The process of enabling people to increase control over the determinants of health and thereby improve their health. The goal of health promotion practice is to provide and maintain conditions that make it possible for people to make healthy choices and facilitate environmental conditions that support healthy behaviors

- **Stakeholders** - Individuals or groups with an interest or stake in an outcome, project, program, or organization.

- **Community health workers** - Female or male individuals chosen by the community and trained to address health issues of individuals and communities in their respective localities, working in close relationship with health facilities. A CHV acts as a catalyst and a change agent to enable people to take control and responsibility of their own health achievement efforts

- **Village health committees** – part of community members that are responsible for leadership and governance of health program and activities

- **Collaboration** - A recognized relationship among different sectors or groups, which has been formed to take action on a matter in a way that is more effective or sustainable than might be achieved by one sector or group acting alone

- **Integration** - Refers to combining health care services and components of health care services that are currently delivered and/or managed separately, for the purpose of optimizing the use of scarce resources, maximizing coverage of services, and improving health outcomes

- **Strategy** - A high-level plan that aims to achieve one or more goals within the context of given constraints and limited resources

- **Community strategy** - this is an approach that sets up an assurance that Kenyan communities have the capacity and motivation to take up their essential role in health care delivery

2) Vision, Mission, Goal and Objectives

Vision - Healthy people living healthy and good quality lives in robust and vibrant communities that make up a healthy and vibrant nation

Mission - The community health approach will become the modality for social transformation for development by establishing equitable, effective, and efficient community health services all over Kenya

Overall goal - To enhance community access to health care in order to improve individual productivity and reduce poverty, hunger, and child and maternal deaths, as well as improve education performance.

Objectives:

- Strengthen the delivery of integrated, comprehensive, and quality community health services for all population cohorts
- Strengthen community structures and systems for effective implementation of community health actions and services at all levels
- Strengthen data demand and information use at all levels
- Strengthen mechanisms for resource mobilization and management for sustainable implementation of community health services
- To improve the health status of Kenyan communities through initiation and implementation of life-cycle focused health actions
- Provide level 1 services for all cohorts and socio-economic groups taking in to account their priority needs
- Build the capacity of community health extension workers (**CHEWs**) and community own resource persons (**CORPS**) to provide services at level 1
- Strengthen health facility-community linkages through effective decentralization and partnership
- Strengthen the community to realize their rights for accessible and quality care and to seek accountability from facility based health services

3) How Community Strategy Came About

- Communities are at the foundation of affordable, equitable and effective health care, and are the core of Kenya Essential Package for Health (KEPH)

- The KEPH is an approach that supports the achievement of the goals of the second National Health Sector Strategic Plan, 2005–2010 (NHSSP II).

- The packages are:
    - Eliminate communicable conditions
    - Revise rising burden of non-communicable conditions
    - Reduce the burden of violence and injuries
    - Provide essential health services

- Minimize exposure of health risk factors
- Strengthen collaboration with other related health sectors

- Kenya National Health Sector Strategic Plan is a five-year plan that aims at reversing the declining trends in key health sector indicators.

- The NHSSP II has five broad policy objectives:
  - Increase equitable access to health services
  - Improve the quality and responsiveness of services in the sector
  - Improve the efficiency and effectiveness of service delivery
  - Enhance the regulatory capacity of MOH
  - Foster partnerships in improving health and delivering services
  - Improve the financing of the health sector

- The current version is called Kenya Health Sector Strategic & Investment Plan (2013-2018)
  - Designed to respond to expectations of the state (through the Constitution), the Government (through the Vision 2030), and the international community (through international obligations).

  - Provides the Health Sector Medium Term focus, objectives, and priorities to enable it move towards attainment of the Kenya Health Policy Directions

  - It guides both County and National Governments on the operational priorities they need to focus on in health.

  - It focuses on five life cycle cohorts and four tiers of service delivery under KEPH

  - Community (tier one), is the foundation of the health care service delivery system for demand creation, health promotion, diseases prevention, and referrals.

- Kenya Health Policy Framework (2014-2030):
  - Aims at guiding attainment of long-term health goals sought by the country, outlined in the Vision 2030 and the 2010 constitution

  - Has overall goal of "attaining the highest possible health standards in a manner responsive to the population needs"

  - Aims to achieve this goal through supporting provision of equitable, affordable, and quality health and related services at the highest attainable standards to all Kenyans.

- Targets attaining distribution of health at a level commensurate with that of a middle income country through:
  - A rights-based approach
  - Ensuring health sector contribution to the country's development

- Recognizes the need to facilitate provision of health promotion and targeted disease prevention/curative services through community based initiatives as defined in the 2006 Community Health Strategy.

- The concept of community strategy came about after seeing the need to enhance community access to health care in order to improve productivity and reduce poverty, hunger and child & maternal dearth as well as improve education performance across all stages of the life cycle

- Kenya realized the need of establishing sustainable and decentralized community level services and accountability

4) The Essential Elements of the Community Strategy

- The Linkage Mechanisms and Structures

Community unit - The "community unit" as defined in this context comprises approximately 1,000 households or 5,000 people who live in the same geographical area, sharing resources and challenges. In most rural areas such a unit would be a sub-location, the lowest administrative unit. The number of households in a community unit will determine the number of community health workers to be selected, so that 1 CHW serves approximately 20 households.

Community Health Committee (CHC) - The health governance structure closest to the community is the CHC, elected in such a way that all the villages in the community unit are represented. The CHC should be elected at the Assistant Chief's baraza under the chair of the Assistant Chief.

Roles and functions:
- Identifying community health priorities through regular dialogue
- Planning community health actions
- Participating in community health actions.
- Monitoring and reporting on planned health actions
- Mobilizing resources for health action
- Coordinating CHW activities
- Organizing and implementing community health days
- Reporting to level 2 on priority diseases and other health conditions
- Leading community outreach and campaign initiatives
- Advocating for good health in the community

Level 2 Management Committee - This committee should have 12 members with equal representation of the community units served. The chair and treasurer should be elected from among members, while the secretary should be the facility in-charge. The CHEW should be included and eight other members appointed by CHCs

Roles and responsibilities:

- Establishing the linkage between the health system and the community to promote people's confidence in services beyond level 1
- Planning, implementing, monitoring and evaluating health actions at the facility and in the community units served.
- Providing feedback on level services
- Facilitating regular dialogue between the community and the health service providers
- Mobilizing resources for development of the health facility as well as supporting outreach and referral activities
- Participating in community health days, outreaches and campaigns
- Strengthening community involvement in decision making
- Promoting inter-sector collaboration
- Overseeing the community unit's processing of community-based and facility-based health information systems (CBHIS and FBHIS, respectively
- Facilitating budgeting, budget controls and accountability to ensure availability of resources needed for level 1 services.

Level 3 Health Facility Management Committee - The committee should have 14 members representing level 2 units served within the catchment area. The level 3 facility in-charge and the Public Health Officer (PHO) in the division will be ex officio members (that is, members by reason of their position

Roles and responsibilities:

- Supervising activities at level 2 and immediate catchment area CHC
- Organizing quarterly performance review meetings for all facilities in the catchment area
- Preparing quarterly reports and submitting progress reports to the DHMT & level 2 and CHCs.
- Overseeing the functioning of the health center in support of level 1 service provision. w Ensuring implementation of policy guidelines
- Training trainers and CHEWs on level 1 services and overseeing training of CHWs
- Providing technical and professional guidance through supportive supervision.
- Coordinating CBHIS and FBHIS and divisional experience sharing and dialogue forums
- Disseminating information to relevant levels
- Managing relationship with divisional level stakeholders

- Mobilizing resources for development of the health facility as well as supporting outreach and referral activities.

Divisional Health Stakeholder Forum - The membership should include: The District Officer as chair and the PHO as secretary, with representatives of CBOs, FBOs, NGOs, and other sectors such as agriculture, education, water, social services, roads, environmental services

Roles and responsibilities

- Sharing information and areas of coverage amongst partners
- Identifying gaps in divisional health interventions
- Mobilizing any additional resources to address the gaps
- Proposing areas of harmonization of CHC, level 2, level 3 and stakeholder plans
- Participating in selection of district health management board (DHMB) members
- Submitting reports to district health stakeholder forum.

The District Health Stakeholder Forum – Within the district, the organization and management of LEVEL ONE SERVICES should be integrated into the health sector and local government reform frameworks.

District Health Management Board - The DHMB provides leadership and accountability in support to level 1 activities. The board receives reports from the DHSF and provides feedback to facilitate monitoring of overall district activities according to the annual operational plan (AOP)

Roles and responsibilities

- Coordinating district health services in collaboration with stakeholders
- Approving plans and budget
- Receiving implementation progress report
- Supervising level 1 – level 4 committees
- Mobilizing resources and allocates to various levels and units
- Submitting reports to facilities, community, provincial and national level structures

- The management Structures

District Health Management Team - The DHMT provides technical support to level 1 activities that includes planning, implementation, monitoring and supervision. The DHMT has eight functional clusters, taking into consideration the implementing role of the district.

Provincial Health Management Team - The PHMT roles are clustered into three, taking into consideration the coordinating and supervisory role of the district. The roles are summarized in

Technical Stakeholder Committees - These committees are chaired by the respective heads of departments, while heads of divisions serve as secretary. The members should include representatives of NGOs, FBOs, private and other government sectors as the committee decides.

Health Sector Coordinating Committee - This is a committee of 20 members, chaired by the Permanent Secretary with the Ministry Monitoring Unit (MMU) as Secretary

5) Roles of Households and Community

- **Health promotion** – through:
  - Ensure healthy diet for people at all stages in life in order to meet nutritional need
  - Building healthy social capital to ensure mutual support in meeting daily needs
  - Demand health and social entitlements as citizens
  - Monitor health status to promote early detection of problem for timely action
  - Taking regular exercise
  - Ensure gender equity
  - Use available services to monitor nutrition, chronic conditions and other causes of disability

- **Disease prevention** – through:
  - Practice good personal hygiene in terms of hand washing, use of latrine etc.
  - Using safe drinking water
  - Ensure adequate shelter and protection against vectors of diseases
  - Preventing accidents and abuse and taking appropriate measures when they occur
  - Ensuring appropriate sexual behavior to prevent STI

- **Care seeking compliance with treatment and advice** –through:
  - Giving sick household members appropriate home care for illness
  - Taking children for immunization as scheduled
  - Recognizing and acting on the need for referral or seeking care outside home
  - Following recommendations given by health worker in relation to treatment, follow up and referral
  - Ensuring that every pregnant woman receives antenatal and maternity care services

- **Governance and management of health services** – through:
    - Attending and taking an active part in meetings to discuss:
        - Trends in coverage
        - Morbidity
        - Resources and clients' satisfaction

- **Claiming rights** – through:
    - Knowing what rights communities have in health
    - Building capacity to claim these rights progressively
    - Ensuring that health workers in the community are accountable for effective health service delivery and resource use
    - Ensure health facilities are functioning in line with the Citizen Health Charter

6) Implementation Framework and Process

- The implementation of the strategy is guided by the following principles:
    - Health as a basic human right
    - Technical and cultural appropriateness
    - Participatory approach
    - Inter-sectoral, multidisciplinary, and inter-institutional collaboration
    - Use of innovation and appropriate technology
    - Due consideration for gender, equity, and the dignity of human life

- The following are the considerations **(pillars)** for implementing community strategy:
    - **Leadership and governance** – well defined structure of linkage between community and facilities

    - **Health workforce** – Well defined roles of CHWs and CHEWs and their spirit of voluntarism

    - **Service delivery system** – Defined service delivery by age specific cohorts

    - **Information systems** – Existence and linking community based health information system with District Health Information System

    - **Commodities and supplies** – The CHWs have bags and kits for service delivery

    - **Community health financing** – There need to be a provision of sustainable mechanism and incentives for the CHWs

    - **Health infrastructure** – Provision of means of transport e.g. motorbikes and bicycles

7) Community Mobilization

- It is an attempt to bring both human and non-human resources together to undertake developmental activities in order to achieve sustainable development

- Purposes of community mobilization include:
  - Stimulates actions by a community itself in planning, implementation and
  - Brings dialogue among members of the community to determine who, what, and how issues are decided
  - Sensitize and motivating the community to work together
  - Ensures the community's interest is created, motivated and influenced to take action
  - Strengthening community organizations
  - Creates an empowering environment
  - Promoting community members' participation

- Steps of community mobilization include:
  - Getting to know the community, provide information & create interest
  - Analysis + Identify resources + Problem identification + Identification solutions & projects
  - Decision making & selection of leaders by community
  - Identification of stakeholders
  - Planning & selection of implementing leader
  - Project implementation by community
  - Follow-up & monitoring
  - Evaluation

8) Community Involvement and Participation

- This is the process of engaging in dialogue and collaboration with community members
- It aims at;
  - Building ownership
  - Increase accountability
  - Sustaining actions
  - Continuity of services

9) Procedures of Community Based Research (*see community diagnosis*)

- Purposes of community based research:
  - There is increased focus of funding agencies and researchers on approaches to public health research
  - Influence of social and political systems on behavioral and health outcomes

- Principles of community-based research:
  - ✓ Respect for community interests
  - ✓ Identification of potential community stakeholders
  - ✓ Invite feedback regarding concerns
  - ✓ Partnership establishment
  - ✓ Disseminate research findings to community stakeholders
  - ✓ Having the research topic address a community-defined need
  - ✓ Partners recognizing race, ethnicity, class, and other aspects of culture.

10) Income Generating Activities

- This is a mechanism for sustainability
- The CORPS get involved in activities that give them revolving funds
- Some of the IGAs include kitchen gardening, poultry raring, merry-go-round (chama)

11) Community Entry

- Community entry refers to the process of initiating a desirable relationship with the purpose of securing and sustaining the community's interest in your mission

- It has the following steps:
  - Create awareness
    - Inform leaders about your mission
    - Ensure leaders have adequate information
  - Conduct situation analysis
    - Exploratory visit
    - Protocol i.e. identify gate keepers
    - Participatory assessment
      - ✓ Population size and structure
      - ✓ Community structures
      - ✓ Information systems
      - ✓ Resources available
      - ✓ Service delivery package
      - ✓ Care seeking behavior
      - ✓ Communication strategies
      - ✓ Coping mechanisms
      - ✓ Health status
      - ✓ Food security
      - ✓ Environment
      - ✓ Dialogue centers
  - Planning actions for improving health
    - Facilitate dialogue

        - Identify action points and prioritize them
        - Make a plan of action

    - Establish information system to monitor change
        - Analyze information collected by the CHW
        - Facilitate evidence based dialogue

12) Skills in Training a Community Resource Person

- Adult learn best through illustrated lectures, discussions, brainstorming, group work and feedback, role plays, demonstration, community or household visit, transect walk in PRA, observation and resource mapping.

- Adult learning theory: ***problem-based and collaborative***

- **Principles of adult learning:**
    - **Adults are internally motivated and self-directed**
        - Adult learners resist learning when they feel others are imposing information, ideas or actions on them.
        - A facilitator should not overload students

    - **Adults bring life experiences and knowledge to learning experiences**
        - Adults like to be given opportunity to use their existing knowledge and experience
        - Find out about your student - their interests and past experiences
        - Assist them to draw on those experiences

    - **Adults are goal oriented**
        - Adult students become ready to learn when "they experience a need to learn it in order to cope more satisfyingly with real-life tasks or problems"
        - As educator, you can:
            - Provide meaningful learning experiences
            - Provide real case-studies
            - Ask questions that motivate reflection, inquiry and further research.

    - **Adults are relevancy oriented**
        - Adult learners want to know the relevance of what they are learning to what they want to achieve.
        - Ways of helping learners see the value of their observations and practical experiences are:
            - Ask the student to do some reflection
            - Provide some choice of fieldwork project by providing two or more options, so that learning is more likely to reflect the student's interests.

- **Adults are practical**
  - Students move from classroom mode to hands-on problem solving
  - A trainer should:
    - *Clearly explain your clinical reasoning.*
    - *Be explicit.*
    - *Promote active participation*

- **Adult learners like to be respected**
  - Respect can be demonstrated to your student by:
    - Taking interest
    - Acknowledging the wealth of experiences that the student brings to the placement;
    - Regarding them as a colleague who is equal in life experience
    - Encouraging expression of ideas, reasoning and feedback at every opportunity.

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Unit 7. Environment and Health

1) Definition of Terms

- **Health** - a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity
- **Environment** - all the physical, chemical, and biological factors external to a person
- **Family** - a group of people related either by birth, marriage, co-residence or other relationship
- **Community** - a group of people who live in a defined geographical area, share common cultural values, norms and identity and are arranged in a social structure according to relationships
- **Belief** - is an acceptance that a statement is true or that something exists especially one without proof
- **Culture** - deposit of knowledge, experience, beliefs, values, attitudes, meanings, hierarchies, religion, notions by a group of people in the course of generations through individual and group
- **Team** - a group of individuals (human or non-human) working together to achieve their goal
- **Relationship** - the way in which two or more people or groups regard and behave towards each other
- **Environmental health** - preventing or controlling disease, injury, and disability related to the interactions between people and their environment
- **Environment preservation** - anything we do to protect our surrounding and make it a friendly habitat
- **Health team** - a group of people who share a common health goals and objectives and each member of the team contribute according to his/her competent and skills

2) Environmental Factors That Affect Our Health

- Humans interact with the environment constantly. These interactions affect quality of life

- The factors include:
    - Exposure to hazardous substances e.g. air pollution, water quality, soil, and food safety
    - Natural and technological disasters
    - Climate change e.g. higher sea level, temperature change
    - Occupational hazards e.g. noise
    - The built environment e.g. man-made structures, land use and housing
    - Pest & Vector causing infectious diseases
    - Solid Waste e.g. chemicals, metals
    - Infectious diseases

3) Importance of Environmental Health

- Goal of environmental health is to promote health for all through a healthy environment.

- Environmental health consists of preventing or controlling disease, injury, and disability related to the interactions between people and their environment.

- It increases quality of life and years of healthy life

- Globally, nearly 25 percent of all deaths and the total disease burden can be attributed to environmental factors such as:
    - Exposure to hazardous substances in the air, water, soil, and food
    - Natural and technological disasters
    - Emergencies
    - Water supply
    - Increased urban development
    - Physical hazards
    - Nutritional deficiencies

- Poor environmental quality has its greatest impact on people whose health status is already at risk.

- Therefore, environmental health must address the societal and environmental factors that increase the likelihood of exposure and disease.

4) Relationship Between Individual, Family and Community

- Individuals group together to make a family. At family level, they are governed by family norms, rules and regulations

- Families group together to make a community. At community level, they are governed by community norms, rules and regulations

- Individuals are molded by family, and transformed by the community

- Community influence individual's attitude and personality

5) Members of Health Teams and Their Responsibilities

Give assignment to search for the responsibilities of the following:

- Public health officer
- Health promotion officer
- Public health nursing officer
- Health records and information officer
- Disease surveillance and response officer
- Community Health extension workers
- Community health assistants

6) How Beliefs and Customs Affect Health of Individuals

- Culture is a pattern of ideas, customs and behaviors and it constantly evolve

- Children often struggle with being 'between cultures'– balancing the 'old' and the 'new'. They essentially belong to both, whereas their parents often belong predominantly to the 'old' culture.

- Both health professionals and patients are influenced by their respective cultures.

- Cultural bias may result in very different health-related preferences and perceptions.

- The influence of culture on health include:
    - It affects perceptions of health, illness and death
    - Beliefs about causes of disease
    - Approaches to health promotion
    - The types of treatment patients prefer.
    - Where patients seek help, how they ask for help and, perhaps, when they make their first approach
    - Patient interaction with health care providers

- Degree of understanding and compliance with treatment recommended by health care providers
- How patients and providers perceive chronic disease and various treatment options.
- Acceptance of a diagnosis, including who should be told, when and how.
- Willingness to discuss symptoms with a health care provider
- Influence of family dynamics, traditional gender roles, family responsibilities, and patterns of support among family members.
- Influence of culture on feeding and nutrition
- How patients and health care providers view health and illness
- What patients and health care providers believe about the causes of disease
- Which diseases or conditions are stigmatized and why.

7) Roles of Community in Preserving Environment

What can state, local and territorial governments do?

- Facilitate collaboration among diverse sectors
- Conduct comprehensive community health needs assessments and develop state and community health improvement plans.
- Strengthen and enforce housing and sanitary rules

What Can Businesses and Employers Do?

- Ensure that homes and workplaces of workers are safe and healthy
- Adopt practices to increase physical activity and reduce pollution.

What Can Health Care Systems, Insurers, and Clinicians Do?

- Partner with state and local governments to develop community health improvement plans.
- Support integration of prevention and professional training
- Increase the use of certified equipment and skilled personnel

What Can Early Learning Centers, Schools, Colleges, and Universities Do?

- Integrate appropriate health competencies into relevant curricula (e.g., nursing, community health assistance, social work, education) and train professionals to collaborate across sectors to promote health and wellness.

- Implement policies and practices that promote healthy and safe environments (e.g., improving indoor air quality; reducing exposure to pesticides; ensuring that drinking water sources are free from bacteria).

What Can Community, Non-Profit, and Faith-Based Organizations Do?

- Promote cross-sector participation in planning, implementing, and evaluating community health efforts.
- Ensure that people are actively engaged in decisions that affect health.

What Can Individuals and Families Do?

- Conduct home assessments and modifications
- Maintain self and family hygiene.

8) Common Barriers to Inter-Professional Healthcare Team Work

Organizational barriers:

- Lack of knowledge and appreciation of the roles of other health professionals;
- Arguments for team building to senior decision-makers;
- Lack of outcomes research on collaboration;
- Financial and regulatory constraints;
- Legal issues of scope of practice and liability;
- Hierarchical administrative and educational structures that discourage collaboration.

Barriers at the team level:

- Lack of a clearly stated goal or purpose
- Lack of training in inter-professional collaboration;
- Role and leadership ambiguity;
- Team too large or too small;
- Team not composed of appropriate professionals;
- Lack of appropriate mechanism for timely exchange of information;
- Need for orientation for new members;
- Lack of problem solving framework;
- Greed of power
- Difficulty in engaging the community;
- Lack of commitment of team members;
- Conflict of interest;
- Apathy of team members;

Barriers faced by individual team members:

- Lack of self-discipline
- Multiple responsibilities and job titles;
- Competition
- Gender, race, or class-based prejudice;
- Persistence of a defensive attitude;
- Reluctance to accept suggestions from team members representing other professions; and
- Lack of trust in the collaborative process.
- Relationship

9) Overcoming Barriers

- Agree on uniform philosophy
- Commitment to common goal and collaboration;
- Learn about other professions;
- Respect others' skills and knowledge;
- Establish positive attitudes about own profession;
- Develop trust between members;
- Be willing to share responsibility
- Be a negotiator;
- Be able to resolve conflicts between team members

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Unit 8. Drugs and Substance Abuse

1) Definition of Terms

Drug – Any substance that causes a change in a person's physiology or psychology when consumed. The drugs are typically distinguished from food and substances that provide nutritional support.

Drug Abuse: Chronic use of a drug, or compulsory use of drugs for a reason other than for which it was intended. It is the bad use of a drug leading to dependency and dependence.

Drug misuse: Using a drug for a reason other than its clinical purpose. When a person starts taking drugs regularly, the drugs produce tolerance, addiction, withdrawals and psychological dependence

NACADA - stands for National Agency for the Campaign against Drug Abuse (Kenya)

2) Classifications of Drugs

- Drugs can be categorized based upon their effects on users.
- There are essentially seven different drug types, each with its own set of characteristics, effects and dangers.
- Drugs are classified as:
    - **Stimulants** - impact the body's central nervous system (CNS), causing the user to feel as if they are "speeding up." These drugs increase the user's level of alertness, pumping up heart rate, blood pressure, breathing and blood glucose levels.
        - Doctors prescribe stimulants for, narcolepsy and asthma (because the drugs can open up breathing passages). The drugs can also help aid weight loss, as they can decrease appetite in users.
        - Stimulant abuse occurs in high school when teens wish to enhance performance in school or sports.
        - Examples are:
            - ✓ **Cocaine** – commonly known as blow, bump, candy, coke, rock (are smoked or injected)
            - ✓ **Amphetamine** – commonly known as black beauty, hearts, track driver (swallowed, smoked, injected)
            - ✓ **Methamphetamine** – known as ice, chalk, go fast, glass (swallowed, smoked, injected)
    - **Depressants** - Like stimulants, depressants also impact the body's CNS, but with the opposite effect, making users feel as if things are "slowing down." Thus, they are often called "downers" on the street.

- Doctors prescribe depressants for anxiety, insomnia, and other medical issues that prevent the sufferer from fully relaxing.
- These drugs often offer a sedative experience to users, making them a tempting choice for teens who wish to escape everyday stresses.
- Examples are: Valium, alcohol,

- **Hallucinogens** - Hallucinogens work by disrupting communication within the brain.
  - Users report intense, rapidly shifting emotions and perceptions of things that aren't really there. Hallucinogen user might believe that they see a person speaking to them - when that person does not even exist.
  - Example:
    - ✓ **LSD** – known as acid, blue heaven, yellow sunshine (smoked, eaten, mixed with beverages)
    - ✓ **Psilocybin** – known as magic mushroom, purple passion

- **Dissociative** - Dissociative distort the user's perception of reality, and cause users to "dissociate," or feel as if they are watching themselves from outside their own bodies. They may gain a false sense of invincibility, then engage in risky behavior such as driving under the influence.

  - These drugs work by interfering with the brain's receptors for the chemical glutamate, which plays a significant role in cognition, emotionality and pain perception. Dissociative can be taken as liquids, powders, solids or gases. The drugs include:
    - ✓ **Katamine** – known as vitamin K
    - ✓ **PCP and analog** – known as angel dust, love boat

- **Opioids** - Opioids are powerful painkillers that produce a sense of excitement or joy in users. They are extremely habit-forming, sometimes even causing addiction in as little as three days.
  - Are often prescribed by doctors to patients who are suffering from intense pain.
  - Opioids can be smoked, eaten, drank, injected or taken as pills.
  - Examples:
    - ✓ **Heroin** – known as horse, brown sugar, white horse)
    - ✓ **Opium** – known as black stuff, block, gum, big O

- **Inhalants** - These drugs cause brief feelings of joy and excitement. As the name suggests, inhalants are always inhaled as gases, sprays or fumes.
  - Examples: are gasoline glue, room deodorizers, aerosol sprays

- **Cannabis** - Most commonly recognized as marijuana, cannabis acts like a hallucinogen, but also produces depressant-like effects. It has a high potential for addiction.
  - Cannabis can be smoked, vaporized, and even eaten
  - Examples of cannabis include:
    - ✓ **Marijuana** leaves known as blunt, ganja, herb, Mary jane, weed
    - ✓ **Hashish** known as Shisha

3) Commonly Abused Drugs

Alcohol

- Alcohol is contained in drinks such as beer, wine, brandy, spirits and whisky.
- It acts on their body primarily as a depressant and lowers down the brain activity.
- However, in low doses it can be a stimulant. If used in excess, it will damage or even kill body tissues including muscles and brain cells.
- Its consumption causes a number of marked changes in behavior. Even low doses impair judgement and coordination.
- With extreme intoxication the drinker may lapse into comma.
- Alcohol has produced many enjoyable moments and sad ones as well.

Tobacco

- Tobacco comes in form of cigarettes, cigars, snuff and in smokeless tobacco.
- Smokers are more likely to contract heart disease. Lungs, larynx, oesophagus, bladder, pancreatic and kidney cancer also strike smokers.
- Smoking during pregnancy poses serious risk e.g. spontaneous abortion, preterm birth, low birth weight and fatal and infant deaths
- The most dangerous substance in tobacco is nicotine.
- The street names used for tobacco include cigs, smokes, monzo, fegi and butts.

Cannabis

- It is commonly known as bhang, marijuana and hashish
- The cultivation of the herbal cannabis commonly known as bhang is spread throughout the country especially Mt. Kenya region, Kisii, Vihiga.
- All forms of cannabis have negative, physical and mental effects.
- Substantial increase in heartbeat, blood shot eyes, a dry mouth and throat and increased appetite are characteristics of its use.
- Use of cannabis may impair of reduce short term memories and comprehension, alter sense of time and reduce ability to perform tasks requiring concentration and coordination for example driving.
- Research shows that those use them like students do not retain knowledge when under influence.
- Because users often inhale the unfiltered smoke deeply and then hold it in the lungs for as long as possible, marijuana is damaging the lungs and pulmonary system

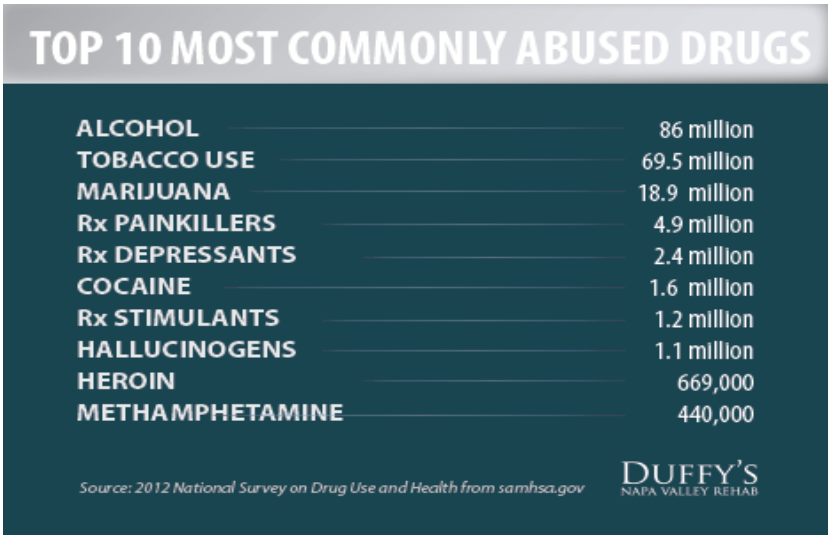
- Long term users of cannabis may develop psychological dependents, damaged lungs, chest pains, bronchitis, hallucinations/fantasies, abnormal sperm forms in the male and decreased ovulation or increased menstrual irregularities in female.

Heroin:

- This is a narcotic drug that lowers perception of pain.
- Heroin finds way into the country from India, Pakistan, Afghanistan and Thailand.
- Kenya nationals have also been arrested for trafficking the drug locally and abroad
- Local abuse of this drug is prevalent in Nairobi, Mombasa and Malindi towns.
- The use of this drug leads to Euphoria, reduced appetite, chronic bronchitis, tetanus, hepatitis and endocarditic.
- Overdose leads to reduce oxygen to the brain, suppressed respiration, coma or even death. It is medically used as anesthetic and cough suppressant.

Cocaine:

- It is a crystalline-whitish powder chemically produced by cocoa leaves.
- This drug is sourced from South Africa, Brazil and Colombia but its availability and abuse in Kenya is minimal.
- The leaves traditionally are chewed to suppress hunger.
- It is applied to the gum of the mouth, tongue, eyelids or private parts to delay orgasm.
- It is also injected and favorably snorted.
- Its use causes sleeplessness, excitement, loss of appetite, increased sexual desire and feeling of self-satisfaction.
- Prolonged use leads to loss of weight, impotence, blindness, orgasm failure, stomach problems, liver and lung damage.
- Overdose leads to death due to respiratory paralysis or cardiac arrest.



4) Effects of Drugs (to Individuals, Household and Community)

- **Individual**
  - ✓ Alters judgement, vision, coordination and speech and also leads to risk taking behavior.
  - ✓ Increases chances of being involved in traffic accidents which may lead to death or injury.
  - ✓ Drug use leads to poor performance in learning.
  - ✓ Drugs erode self-discipline and motivation
  - ✓ It may lead to death from, for example alcoholic poisoning.
  - ✓ Youngsters may resort to embezzlement, forgery, corruption, bribery and extortion
  - ✓ Leads to psychiatric disorders such as delusional state and chronic dementia.
  - ✓ Involvement in fights and these get them into trouble with the law.
  - ✓ Because drugs lead to irresponsible sexual behavior, female abusers may get pregnant.
  - ✓ Employed youth lose their jobs due to absenteeism and sometimes inefficiency.

- **Household**
  - ✓ Affecting users' relation with family members and friends.
  - ✓ Associated with crime and misconduct that disrupt the maintenance of an orderly and safe neighborhood.
  - ✓ Stigmatizing the family
  - ✓ Giving bad reputation of the family

5) Illnesses Associated with Drug Abuse

- **HIV** - The human immunodeficiency virus (HIV) causes HIV infection and the acquired immunodeficiency syndrome (AIDS).

- **Depression** - A depressive disorder is a syndrome (group of symptoms) that reflects a sad, blue mood exceeding normal sadness or grief, changes in bodily functions (for example, eating, sleeping, and sexual activity).

- **Erectile dysfunction** - Erectile dysfunction (ED), also known as impotence, is the inability to achieve or sustain an erection for satisfactory sexual activity.

- **Schizophrenia** - referred to as split personality disorder, schizophrenia is a chronic, severe, mental illness

- **Steroid withdrawal symptoms** - can mimic many other medical problems. Weakness, fatigue, decreased appetite, weight loss, nausea, vomiting, diarrhea (which can lead to fluid and electrolyte abnormalities), and abdominal pain are

common. Blood pressure can become too low, leading to dizziness or fainting. Blood sugar levels may drop. Women also may note menstrual changes. Less often, joint pain, muscle aches, fever, mental changes, or elevations of calcium may be noted.

- **Stress** - is a fact of nature in which forces from the inside or outside world affect the individual. The individual responds to stress in ways that affect the individual, as well as their environment.

- **Stroke** - also known as a cerebrovascular accident or CVA, occurs when part of the brain loses its blood supply. A stroke is a medical emergency because strokes can lead to death or permanent disability

- **Hepatitis C infection** - is an infection of the liver caused by the hepatitis C virus (HCV). It is difficult for the human immune system to eliminate hepatitis C from the body

- **Microcephaly** - is a medical condition in which the circumference of the head is smaller than normal because the brain has not developed properly or has stopped growing.

- **Low blood pressure** - also called hypotension, is blood pressure low enough that the flow of blood to the organs of the body is inadequate and symptoms and/or signs of low blood flow develop shock.

- **An aortic aneurysm** - involves the aorta, the major artery that leaves the heart to supply blood to the body. An aortic aneurysm is dilation or bulging of the aorta.

- **Others** – child abuse, nose bleeding, brain damage, alcoholism, cancer, Hepatitis B, chronic pain, suicide, antisocial personality disorder, learning disability, sexual problems, anxiety, hypersomnia, hyper sensitivity, domestic violence,

6) Behavior Change Communication

- Behavior Change Communication is a process of working with individuals, communities and societies to develop communication strategies to promote positive behaviors and to provide a supportive environment which will enable people to initiate and sustain positive behaviors

- Steps of BCC
    - Unaware
    - Informed/aware
    - Concerned
    - Knowledgeable and skilled
    - Motivated to change

    - Trial change of new behavior
    - Maintenance/adoption of new behavior

- Audience segmentation:
    - People mostly affected
    - People directly influencing them
    - People indirectly influencing them

- Message development process
    - Existing behaviors
    - Desired behaviors
    - Benefits of desired behaviors
    - Difficulties of desired behaviors
    - Alternative behaviors

- Chanel mix:
    - Community dialogue
    - Interpersonal
    - Mass media
    - Outdoor advertising

- Factors affecting BCC
    - Intention;
    - Environmental constraints;
    - Skills;
    - Anticipated outcomes (or attitude);
    - Norms;
    - Self-standards;
    - Emotion;
    - Self-efficacy.

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Unit 9. Primary Health Care

1) Definition

- "essential health care" that is universally made accessible to all individuals and families in a community through scientifically sound and socially acceptable methods and technology

2) Origin

- The Alma-Ata Declaration of 1978 declared that "Everyone has the right to a standard of living and wellbeing of himself and of his family, including food, clothing, housing and medical care and necessary social services". It further identified primary health care as the key to the attainment of the goal of Health for All.

- Goals and targets were set for achieving "Health for All" by the Year 2000. Some of these goals were that:
  - At least 5% of gross national product should be spent on health;
  - At least 90% of children should have a weight for age that corresponds to the reference values;
  - Safe water should be available in the home or within 15 minutes' walking distance, and adequate sanitary facilities should be available in the home or immediate vicinity;
  - People should have access to trained personnel for attending pregnancy and childbirth; and
  - Child care should be available up to at least one year of age.

- It expressed the need for urgent action by all governments, all health and development workers, and the world community to protect and promote the health of all people

- The PHC approach has since then been accepted by member countries of the WHO as the key to achieving the goal of "Health for All".

3) Importance - the PHC has the following importance:

- Respond to rapid economic, technological, and demographic changes that affect well-being
- Effective and efficient in preventing and addressing main causes and risks of poor health
- Achieves the health-related sustainable development goals (SDGs) and universal health coverage
- Create the conditions that help people to become and stay healthy and well
- Reach everybody – particularly those in great need
- Involve a continuity relationship with persons and families
- Improving family health - with particular focus on mothers and children
- Increase coverage and accessibility of essential health services

- Improve the quality of services
- Pursue an integrated inter-sectorial and multi-disciplinary approaches
- Increase community participation in the planning, delivery, and monitoring of health services

4) Principles

- the following are the principles or pillars of PHC:

- **Equitable distribution**
  - ✓ Equity is the fair distribution of available resources to all individuals and families so that they can meet their fundamental and basic needs.
  - ✓ Services should be physically, socially, and financially accessible to everyone
  - ✓ People with similar needs should have equal access to similar health services
  - ✓ Equal access, resource distribution and coverage of PHC services should be greatest in those areas with the greatest need

- **Manpower development**
  - ✓ PHC aims at mobilizing the human potential of the entire community by making use of available resources
  - ✓ This principle facilitates the identification and development of necessary personnel as well as training new categories of health workers to serve the community

- **Community participation**
  - ✓ This is the process by which individuals, families and communities take responsibility in promoting their own health and welfare
  - ✓ Full participation is important in decision making and taking care of own health
  - ✓ Community members and health providers need to work together in partnership to seek solutions to problems facing the communities
  - ✓ Communities should participate in: Creating and preserving healthy environment; Maintaining preventive and promotive health; Sharing information about own needs with higher authorities; Implementing health care priorities and managing health facilities

- **Appropriate technology**
  - ✓ This is a kind of technology that is scientifically or technically sound and adoptable to local needs, and the community can afford to maintain it for their self-reliance
  - ✓ Caregivers should be trained to deliver services using the most appropriate and cost-effective methods and equipment for their level of care
  - ✓ Full participation is important in decision making and taking care of own health

- **Multi-sector of Inter-sector approach**
  - ✓ Health sector cannot achieve much in isolation
  - ✓ PHC requires coordinated effort with other related sectors whose activities impacts on health e.g., agriculture, water and sanitation, transportation & communication, education etc.
  - ✓ The commitment of all sectors may increase if the purpose for joint actions and roles of each sector is clearly defined

- **Social justice**
  - ✓ Ensure cultural sensitivity
  - ✓ Respect for social identity, norms and etiquette

- **Accessibility**
  - ✓ Make health care accessible to every member of the community
  - ✓ Taking health care services closer to the people

- **Affordability**
  - ✓ Make health care services lest costly so that every member of the community can afford at reasonable cost

- **Sustainability**
  - ✓ Ensure continuity of the health care services even after donor or external funder withdraw the funding

5) Elements - PHC has the following elements:

- Education on health problems and how to prevent and control them
- Food supply and proper nutrition
- Maternal, child healthcare and family planning
- Adequate supply of safe water and basic sanitation
- Immunization against major infectious diseases
- Prevention and control of local endemic diseases
- Treatment of common diseases and injuries
- Essential drugs and basic medication

Kenya added the following elements:

- Mental Health
- Dental Health
- TB Control and Treatment
- STI and HIV/AIDS prevention and Control
- Community Based Rehabilitation
- Eye Care

6) Services in Primary Health Care

- Are services that focus on the individual or family. Are essential health services such as immunization, health education, nutrition and food supply, treatment and control of minor illnesses, safe water, waste disposal etc.

7) Levels

– A level is a stage or position of something. Levels of PHC are the units of care or implementation of activities. The levels of health care are:

- Individual Based Health Care
- Family Based Health Care
- Community Based health care
- Facility Based Health Care (Dispensary, Health center, District hospital, Provincial hospital)

8) PHC Strategies

– Are approaches or methods of implementing an activity. There are three main PHC strategies:

- **Community Based Health Care**
  - ✓ These are health care activities initiated and implemented by community own resource persons
  - ✓ It is for people of all ages who need health care assistance at home. Community care services include home support, home nursing, physiotherapy and other rehabilitation services.
  - ✓ For example: A CHW visits an elderly person at home to help with medication, or a CHW support worker helps a child in a wheel chair with personal care, such as bathing.

- **BAMAKO Initiative**
  - ✓ This initiative was a formal statement adopted by African health ministers in 1987 at Bamako in Mali.
  - ✓ It was meant to implement strategies designed to increase the availability of essential drugs and other health care services
  - ✓ This was an initiative of drug revolving funds as income generating activity to sustain PHC activities.

- **Community strategy**
  - ✓ This is the concept of taking health services close to the people in the village
  - ✓ It is aimed at taking the Kenya Essential Package for Health to the community. It

is a strategy for the delivery of level one service

- ✓ The overall aim is to involve the communities in addressing the downward trend of deteriorating health status. It is a mechanism through which households and communities take an active role in health and health-related development issues.

9) Roles

– Roles are responsibilities assigned to an individual or a group with an aim of achieving a desired objective. The following are key roles of Health Records & Information Officers and Community Health Workers in PHC implementation:

- **Health Records and Information Officer**
  - ✓ Designing, developing and distribution of PHC data collection tools
  - ✓ Data collection, analysis and dissemination
  - ✓ Training of CHW on data collection and management
  - ✓ Advising the PHC team on targets and achievements of PHC
  - ✓ Monitoring and evaluation of PHC implementation

- **Community Health Workers**
  - ✓ Identify and refer patients
  - ✓ Treatment of minor illnesses
  - ✓ Cary out health education
  - ✓ Defaulter tracing
  - ✓ Support home based care services
  - ✓ Home follow up

10) Challenges - Implementation of PHC faced the following challenges:

- Lack the capacity to provide essential health-care services
- Poor distribution of health workers and inadequate equipment
- Poor quality of health-care services
- Poor condition of infrastructure
- Lack of essential drug
- Management of finance
- Community participation not sustainable due to voluntarism
- Inappropriate use of community health workers,
- Balancing the needs of the community with those of health professionals
- Many ordinary people felt PHC was a cheap hence bypassed this level to attend secondary and tertiary centers because of a lack of staff and essential medicines at the PHC level.
- Civil war, natural disasters
- Political commitment was not sustained after the initial euphoria of Alma-Ata.
- Issues of governance and corruption in the use of resources resulted in donors

****** Field Visit to a nearby PHC site *****
Visit a nearby PHC site and identify:

1. What is the name of the site?
2. When did the site start?
3. How many CHWs are active?
4. What are the PHC services offered?
5. What are the 10 factors that are making PHC successful in the site?
6. What are the 10 factors that are making PHC fail in the site?
7. What are the plans to revitalize PHC activities in the site?

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END

Unit 11. Maternal and Child Health

1) Introduction

- Maternal health is the health of women during pregnancy, childbirth, and the postpartum period.
- It encompasses the health care dimensions of family planning, preconception, prenatal, and postnatal care in order to reduce maternal morbidity and mortality.
- Preconception care can include:
  - Education,
  - Health promotion,
  - Screening
  - and other interventions for women of reproductive age to reduce risk factors that might affect future pregnancies.
- Postnatal care issues include:
  - Recovery from childbirth,
  - Newborn care,
  - Nutrition,
  - Breastfeeding,
  - Family planning
- The goal of prenatal care is to:
  - Detect any potential complications of pregnancy early,
  - Prevent them if possible,
  - Direct the woman to appropriate specialist medical services as appropriate.
- Objectives of MCH include:
  - Increasing healthy birth outcomes;
  - Promoting and assuring comprehensive primary care for children
  - Promoting healthy lifestyles among children with special health care needs;
  - Assuring access to safe, healthy child care up to age five
  - Preconception, pregnancy testing and planning.
- In Africa, one out of 210 mothers dies during pregnancy or delivery.
- Most maternal deaths are due to causes directly related to:
  - Pregnancy
  - Childbirth,
  - Unsafe abortion
  - Obstetric complications such as:
    - Severe bleeding
    - Infection
    - Hypertensive disorders
    - Obstructed labor

- Other indirect cause like:
  - Relatively low rate of hospital deliveries,
  - Due to transport problems
  - Lack of infrastructure,
  - Due to cultural prejudices and resistance against giving birth outside the family circle

- The fifth Millennium Development Goal (MDG) aims to reduce the maternal mortality ratio by 75% between 1990 and 2015.

- In Kenya, maternal mortality remains high at 488 maternal deaths per 100,000 live births.

- The MCH/FP clinic offers quality and afford-able services that advocate for safe motherhood, proper child development, and a healthy family.

2) MCH Services

- The services offered in MCH clinic are as follows:
  - Focused antenatal care.
  - Targeted post-natal care.
  - Providing all family planning methods: short term, long term, permanent i.e. vasectomy & tubal ligation.
  - Screening of Breast and Cervical cancer in all women of reproductive ages.
  - Giving immunization i.e. BCG, Pentavalent, Polio, Measles.
  - Growth monitoring for children under the age of five.
  - Counseling and testing of antenatal mothers and partners on PMTCT - eMTC
  - Create awareness through Micro teaching on various topics i.e. Nutrition, Breast feeding, Weaning etc.

- **Focused Antenatal care (FANC)**
  - Aims to promote health of mothers and their babies through targeted assessments of pregnant women to facilitate:
    - ✓ Identification and treatment of already established disease
    - ✓ Early detection of complications and other potential problems that can affect the outcomes of pregnancy
    - ✓ Prophylaxis and treatment for anemia, malaria, and STI including HIV, urinary tract infections and tetanus. Prophylaxis refers to an intervention aimed at preventing a disease or disorder from occurring.

  - Aims to give holistic individualized care to each woman to help maintain the normal progress of her pregnancy through guidance and advice on:
    - ✓ Birth preparedness
    - ✓ Nutrition, immunization, personal hygiene and family planning

- ✓ Danger symptoms that should make pregnant woman get immediate help from a health professional

- The first FANC visit should occur before 16 weeks of pregnancy; 2nd FANC visit at 24-28 weeks of pregnancy; 3rd FANC visit at 30–32 weeks of gestation; and 4th FANC visit between weeks 36-40 of gestation

- **Post-natal care.**
  - The care given to mother and her newborn baby immediately after birth and for the first six weeks of life
  - It aims at:
    - Supporting the mother for an easy transition
    - Early diagnosis and treatment of any complications
    - Provision of nutritional and breastfeeding guidance
    - Guiding on contraception and family planning
    - Guiding on immunization

- **Family planning methods: short term, long term, permanent i.e. vasectomy & tubal ligation.**
  - Family planning can be short term, long term or permanent
  - The choice of one method depend on individual medical condition, taste and partner
  - Family planning are classified into four: (i.e. natural, barrier, hormonal and surgical)
    - ***Natural method***
      - ✓ Does not involve use of drugs or device
      - ✓ Examples are:
        - Withdrawal (coitus interrupters);
        - Safe periods (rhythm method) - No sex between day 8(eight) and day 20 (twenty) of a woman's circle i.e. a total of 12 days without sex in a month
        - Breast feeding amenorrhea method
        - Cervical mucus membrane - couples are advised against using this if they don't understand the physiology of ovulation
        - Basal body temperature (BPT) – Involves daily reading of body temperature

    - ***Barrier method***
      - ✓ This method includes:
        - Male and female condoms
        - Spermicides
        - Diaphragms
        - Cervical caps

- ✓ Whereas condoms, diaphragms, and cervical caps are mechanical barriers, spermicides are chemicals that interfere with the movement of the sperm and its ability to fertilize the egg

- ***Hormonal method***
  - ✓ This is the most commonly used method
  - ✓ They include hormone taken orally, by injection or implanted to prevent development and maturation of woman's eggs (ovum's)
  - ✓ Examples are:
    - Emergency contraception (e-pills)
    - Ordinary pills
    - Injectable contraceptives
    - Contraceptive Implants (Jadelle, Implanon, Zarin)
    - Hormone-releasing intrauterine systems (e.g. Copper T)

- ***Voluntary surgical methods***
  - ✓ The following are surgical family planning methods:
    - Tubal ligation
    - Vasectomy

- **Screening of breast and cervical cancer in all women of reproductive ages.**
  - Services offered for breast and cervical cancer screening and diagnosis include:
    - Clinical breast exams
    - Mammograms
    - Pap tests
    - Human papilloma virus (HPV) tests
    - Pelvic exams
    - Referrals for treatment

- **Giving immunization i.e. BCG, Pentavalent, Polio, Measles.**
  - Basic principle of immunization is to administer into a healthy person a vaccine that will prevent that person from getting a certain disease.
  - Vaccines may be of:
    - Live attenuated: (e.g. Rubella, OPV, Measles and BCG),
    - Inactivated or killed (e.g. Hib, IPV)
    - Micro-organisms
    - Detoxified toxins (e.g. Tetanus)

  - BCG, OPV, DPT-HeB-Hib and Measles vaccines can be given simultaneously if the child is of the appropriate age and has not received the early immunizations.

  - A critically ill child needing hospital admission must be given the appropriate vaccines upon recovery

- The following are common vaccine-preventable diseases
  - ***Whooping cough (Pertussis):***
    - ✓ A communicable disease.
    - ✓ Spread by droplets.
    - ✓ Symptoms include:
      - Severe cough followed by a whoop and vomiting, leads to malnutrition, can cause death, Severe in under 1-year-old.

  - ***Diphtheria***:
    - ✓ An infectious disease.
    - ✓ Spread by droplets.
    - ✓ Symptoms include: Difficulty in breathing, Swallowing, Enlarged neck.
    - ✓ Very severe when it occurs.

  - ***Tetanus***:
    - ✓ A clinical syndrome involving primarily the central nervous system and resulting from the tetanus toxins.
    - ✓ Enters through open wounds, cuts and umbilical stump.
    - ✓ Symptoms include: Stiffness, Locked jaw, Inability to suckle and muscle spasms.
    - ✓ Has a very high mortality (>50%).
    - ✓ Immunizing pregnant mothers ensures protection of her new born baby.

  - ***Measles (Rubella):***
    - ✓ Highly infectious killer disease.
    - ✓ Symptoms include: Rash, Fever, Cough, Red eyes;
    - ✓ Is associated with: blindness, malnutrition, deafness, pneumonia and death.

  - ***Poliomyelitis (Infantile Paralysis):***
    - ✓ An acute communicable disease.
    - ✓ Spread by droplets and oral-faecal contamination.
    - ✓ Symptoms include:
      - Pain and flaccid paralysis in limbs, fever, vomiting; can lead to permanent deformity, and can cause death.

  - ***Tuberculosis***:
    - ✓ A communicable disease.
    - ✓ Spread by droplet.
    - ✓ Symptoms include: fever, wasting, deep chesty cough, Night sweats, may have lymphadenopathy.

- ✓ Leads to lowered resistance to other diseases and may be fatal.

- ***Hepatitis B:***
  - ✓ Is a highly infectious disease.
  - ✓ Transmitted mainly by:
    - Parenteral route,
    - From person to person
    - By close contact
    - Through exchange of body fluids such as:
      - Saliva, Secretions from open wounds, Blood, Vaginal secretions and semen.
  - ✓ Transmission between children is common, since they are often more infectious than adults.
  - ✓ Transmission from carrier mothers can occur in up to 80% of babies during the perinatal period,
  - ✓ Infection may be transmitted either:
    - Vertically (trans-placentally from mother to unborn baby)
    - Horizontally by close contact.

Childhood immunization schedule in Kenya

Vaccine	Age	Remarks
BCG POLIO (OPV O)	At birth Birth Dose	Or at first contact with child
DPT_1-HeB_1-Hib_1 DOSE POLIO (OPV 1)	6 weeks (1½ months)	Or at first contact with child after that age
DPT_2-HeB_2-Hib_2 DOSE POLIO (OPV 2)	10 weeks (2½ months)	4 weeks after DPT 1 and OPV 1 can also be given any time after this period, when in contact with the child.
DPT_3-HeB_3-Hib_3 DOSE POLIO (OPV 3)	14 weeks (3½ months)	4 weeks after DPT 2 and OPV 2 can also be given any time after this period, when in contact with the child.
Measles	9 months	May be given between 6 and 9 months if child is admitted to hospital for any other illness. Repeat at 9 months as per KEPI schedule.

- **Growth monitoring for children under the age of five.**
  - This is the regular recording of a child's weight
  - Measuring height and weight is important when monitoring an infant or child's health.
  - Height and weight measurements are used to calculate your body mass index, or BMI, a measure of healthy versus unhealthy weight.

- **Counseling and testing of antenatal mothers and partners on PMTCT – eMTC**
    - Mother-to-child transmission of HIV is the spread of HIV from a woman living with HIV to her child during pregnancy, childbirth (also called labor and delivery), or breastfeeding (through breast milk).

    - Pregnant women with HIV receive HIV medicines during pregnancy and childbirth to prevent mother-to-child transmission of HIV. In some situations, a woman with HIV may have a scheduled cesarean delivery to prevent mother-to-child transmission of HIV during delivery.

    - Babies born to women with HIV receive HIV medicines for 4 to 6 weeks after birth. The HIV medicines reduce the risk of infection from any HIV that may have entered a baby's body during childbirth.

    - Women who take HIV medicines during pregnancy and childbirth and whose babies receive HIV medicines for 4 to 6 weeks after birth have a low risk of transmitting HIV.

- **Create awareness through Micro teaching on various topics i.e. Nutrition, Breast feeding, Weaning etc.**
    - This educating the mother on delivery preparedness, safe delivery and postnatal care after the delivery

3) Health Education

- Health education is provided at the MCH before the services begin
- Topics covered are those related to:
    - Family planning
    - Antenatal services
    - Preparations for safe delivery
    - Postnatal care
    - Care of the newborn
    - Nutrition and dietary supplements
    - Hygiene
    - Preparation of food for infants and children
- Various teaching methods are used to include short lectures, brainstorming, case studies, illustration and demonstrations

4) Community Based Maternal, Newborn and Child Health Care

- The following are objectives of community based maternal, newborn and child health care:
    - Reduce deaths among mothers, newborns, and young children by improving the health services available in the community

- Provides women with greater access to good-quality, reliable health services.
- Ensure that counties offer essential health services for women and children through outreach and in static facilities;
- Provides training for health care workers in emergency care for pregnant women, new mothers, and newborn babies;
- Strengthens the management and supervision practices in health care facilities.
- Improves ability of men and women in the communities to recognize, prevent, and respond to maternal and child health issues.

- The community MCH services include:
  - Organizing community events and mass media campaigns,
  - Training community theatre groups,
  - Selecting peer youth educators and male champions to raise awareness about potential health issues;
  - Conducting home visits to provide pre-natal and post-natal care and care for newborns and young children;
  - Equipping community health workers to provide services in remote areas and to refer patients to health centres where necessary.
  - Build capacity of traditional birth attendants to identify and refer pregnant mothers to health facilities for safe delivery

- It emphases the role that men can play in helping to improve the health of women and children.

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END

Unit 12. Nutrition and Health

1) Introduction to Nutrition

- **Nutrition** - The science that interprets interaction of food nutrients in relation to maintenance, growth, reproduction, health and disease of an individual. It is the intake of food in relation to the body's dietary needs.

- **Good nutrition** - is an adequate, well balanced diet combined with regular physical activity. Poor nutrition can lead to:
  - Reduced immunity
  - Increased susceptibility to disease
  - Impaired physical and mental development
  - Reduced productivity

- **Diet** - is what an individual eat, which is largely determined by the availability and palatability of foods. A healthy diet includes preparation and storage of food that:
  - *P*reserve its nutrients
  - Reduce risks of foodborne illness

- **Nutrients** – Are chemical components of food that can be classified into:
  - Carbohydrates
  - Proteins
  - Fats
  - Vitamins
  - Minerals
  - Water – Water not a nutrient, but it is essential for the utilization of nutrients.

- Importance of nutrition include:
  - A healthy diet allows adults to work productively and feel their best
  - Good food choices help to prevent chronic diseases, such as heart disease, certain cancers, diabetes, stroke A proper diet reduce major risk factors for chronic diseases, such as obesity, high blood pressure and high blood cholesterol
  - Nutrition is essential for growth and development, health and wellbeing
  - Eating a healthy diet contributes to preventing future illness and improving quality and length of life
  - Your nutritional status is the state of your health as determined by what you eat.

- An individual's food choices depend on energy needs, nutrient needs and enjoyment.

2) Basic Nutrition

- There are two main types of nutrients:
    - Macronutrients i.e. carbohydrate, protein, and fat
    - Micronutrients i.e. vitamins and minerals

Carbohydrates

- Carbohydrates can be classified as:
    - Monosaccharide (e.g. glucose, fructose, galactose)
    - Disaccharide (e.g. sucrose, lactose, maltose)
    - Polysaccharide (e.g. starch, fibre)
- Carbohydrates must be reduced to the simplest form of glucose (through digestion) before your body can make use of them
- Carbohydrates should make up at least 55% of your total energy intake
- The brain is a special part of the body that depends primarily on glucose for its energy and requires about 100 g/day of glucose for fuel

Protein

- Protein is important for the production, maintenance and repair of tissues in the body
- When energy intake is insufficient, protein intake must be raised. This is because ingested proteins are directed towards glucose (sugar) synthesis and oxidation
- The tissues and organs in the body are made up of protein and protein compounds
- Enzymes (catalysts), antibodies and hormones consist of protein
- The building blocks of protein are called amino acids
- For adults, the recommended dietary allowance of protein is about 0.75 g/kg body weight per day
- Animal products have the highest amount of proteins, followed by legumes (beans), cereals (rice, wheat, corn) and roots

Fats and oils

- Fats we consume occur in foods like nuts, avocados, oil, etc.
- Salad oil (omega-6 fats reduce inflammation and prevent certain chronic diseases such as heart disease and arthritis
- Saturated fatty acids raise blood cholesterol levels
- Trans fat are harmful to your health. Trans fats are found mainly in deep-fried fast foods and processed foods made with margarine.
- It is recommended that your total fat intake is no more than 30% of your energy (calorie/kilojoule) intake.

Vitamins

- Vitamins are needed in small quantities
- Vitamins cannot be made in the body and must be obtained from dietary sources

- Only vitamin D can be manufactured by the body
- Essential vitamins are grouped into two families:
    - Water soluble - Can dissolve in water (vitamin C, folic acid)
    - Fat soluble - can dissolve in a fat medium (vitamins A, D, E, K)
- Vitamins helps in disease prevention, formation of hormones and blood cells

Minerals

- Minerals are essential, acting as cofactors of enzymes (i.e. enzymes would not exist or function without minerals). Some of the minerals necessary for health are:
    - **Calcium** – Helps in blood clotting, build and maintain strong bones.
    - **Iron** – Helps in blood cell formation
    - **Zinc** - Essential for synthesizing protein, DNA and RNA. It is required for growth in all stages of life. Sources include meats, oysters and other seafood, milk, and egg yolk.

3) Nutrition During Phases of Life

- This is the nutrition required during: Pregnancy and early childhood; Childhood and adolescent; School going age; Adults; and older age.

    - **Pregnancy and early childhood**
        - Starting early with breastfeeding and providing good nutrition for children gives the best start to a healthy life.
        - Good nutrition in pregnancy is essential for keeping a developing baby and mother healthy
        - Breastfeeding is the natural way to feed babies
        - Breastfeeding is extremely important for the health outcomes of infants and their mother
        - Solids should be introduced at around six months of age when the infant is developmentally ready
        - For young children, a healthy diet is required for optimal growth and development. It can also help to improve concentration, fight illnesses, and prevent long term health complications.

    - **Children and Adolescents**
        - Children and adolescents need sufficient foods to grow and develop normally.
        - Growth should be checked regularly for young children.
        - Physical activity is important for children and adolescents.
        - Many infants suffer and die because of ignorance, meanness of parents and inability to understand the infant communication language

    - **School aged children**
        - Childhood is an important period when children develop the knowledge, skills and behaviors for lifelong health and wellbeing

- We know that education and health are inseparable and that a healthy child learns well.

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- **Adults**
  - Healthy eating during adulthood is vital for effective functioning of body systems and immunity, maintaining a healthy weight, and preventing and managing chronic conditions such as diabetes and heart disease.

- **Older people**
  - Good nutrition is important for older people to help promote independence and to reduce illness and premature death.
  - Maintaining a healthy lifestyle, including good nutrition, plays an important role in ensuring older people can live well at home for longer.

- The body mass index is a value derived from the mass and height of a person. The BMI is defined as the body mass divided by the square of the body height, and is universally expressed in units of kg/m^2, resulting from mass in kilograms and height in meters

$$BMI = \frac{\text{weight (kg)}}{\text{height x height } (m^2)}$$

4) Community Nutrition

- Community nutrition is the process of helping individuals and groups develop healthy eating habits in order to promote wellness and prevent disease

- The goal of community nutrition is to educate individuals and groups so that they adopt healthy eating habits.

- Community nutrition focuses on all age groups.

- Community nutrition programs are administered by organizations such as public health agencies, public schools, residential facilities for the elderly, hospitals, social service organizations, and health-care systems

- Community nutrition entails the following components:
  - **Surveillance of food chain** – This is assessing food for possible infestation with germs, toxic. It's also called food contamination monitoring

  - **Nutritional epidemiology** – A study on relationship between nutrition and health. It is the study on effects of dietary intake and nutritional status on health of individual or community.

- **Clinical nutrition and diabetes** - Involves assessing the effectiveness of clinical nutrition in diabetes care and outcomes

- **Nutrition education** - Is any combination of educational strategies, accompanied by environmental supports, designed to facilitate voluntary adoption of food choices and nutrition-related behaviors conducive to health and well-being.

- **Food and nutrition policy** – Government rule for:
  - Making healthy food available
  - Disclose the calorie content of restaurant foods
  - Teach people how to make healthy eating easier
  - Nutrition standards for school lunches
  - Regulation of food additives.

- **Food industry and standard agency** - is a global collective of diverse businesses that supply much of the food and food energy consumed by the world population e.g. UNILIVER. It is concerned with food industry – from farming, food production and distribution, to retail and catering. It addresses food safety issues at every stage of the chain, providing information and guidance on best practice and legal requirements.

- **Mass catering** - Food and drink supplied by a caterer to large numbers of customers at the same time

5) Nutrition in Pregnancy and Lactation

- Pregnancy is physiologically and nutritionally a highly demanding period. Extra food is required to meet the requirements of the fetus.

- A woman prepares herself to meet the nutritional demands by increasing her own body fat deposits during pregnancy.

- A lactating mother requires extra food to secrete adequate quantity/ quality of milk and to safeguard her own health.

- A pregnant and lactating woman requires nutrient that contain an additional 350 calories, 0.5 g of protein during first trimester and 6.9 g during second trimester and 22.7 g during third trimester of pregnancy.

- A breastfeeding mother needs a lot of energy and nutrients such as protein, calcium, iron and vitamins

- Pregnant woman should adhere to the following dietary plan:
  - Eat more food during pregnancy.

- Eat more whole grains and fermented foods.
- Take milk/meat/eggs in adequate amounts.
- Eat plenty of vegetables and fruits.
- Avoid superstitions and food taboos.
- Do not use alcohol and tobacco. Take medicines only when prescribed.
- Take iron, folate and calcium supplements regularly, after 14-16 weeks of pregnancy and continue the same during lactation.
    - Folate helps in synthesis of hemoglobin, increase birth weight and reduce congenital anomalies.
    - Iron helps hemoglobin synthesis, mental function, provide immunity against diseases.

6) Malnutrition and Other Related Conditions

- Malnutrition is the condition that develops when the body does not get the right amount of the vitamins, minerals, and other nutrients it needs to maintain healthy tissues and organ function.

- Individuals are malnourished if their diet does not provide them with adequate calories and protein for maintenance and growth, or they cannot fully utilize the food they eat due to illness.

- Growth failure malnutrition is the failure of an individual to grow as expected in height or weight, according to his/her age and gender.

- Growth failure malnutrition can take three serious types:
    - **Acute malnutrition or wasting** - arises out of sudden, drastic weight loss. It leads to three clinical malnutrition types:
        - ***Marasmus*: this occurs when body fat and tissues degenerate at an alarming rate to compensate for the lack of nutrients. As a result, the body's internal processes begin to slow down alarmingly fast as does the activity of the immune system.

        - ***Kwashiorkor***: this is characterized by bilateral pitting edema (fluid retention) in the legs and feet. As a result, the under-nourished child may actually look plump.

        - ***Marasmic-kwashiorkor***: This is characterized by both severe wasting and edema.

    - **Chronic malnutrition or stunting** - happens over a long period of time and has more long-lasting consequences. It begins before birth due to poor maternal health and leads to stunted growth in an otherwise normally proportioned child. Poor breast feeding, infections and lack of availability of proper nutrients are the main causes behind it. Stunting is dangerous

because it becomes irreversible after an age. Therefore, it becomes important to nip it in the bud by providing proper medical treatment to pregnant women and young girls.

- **Micronutrient malnutrition** - implies a moderate to severe lack of Vitamins A, B, C and D, Calcium, Folate, Iodine, Iron, Zinc and Selenium. These vitamins and minerals are of utmost importance in various body processes and their deficiency can make an otherwise healthy person malnourished:
    - Iron deficiency causes anaemia, poor brain development and cardiac functioning.
    - Iodine deficiency leads to impaired thyroid functioning and mental retardation.
    - Vitamin D deficiency causes rickets and other bone development related disorders.
    - Selenium deficiency leads to poor cardiac function, weak immunity and osteoarthritis.
    - Vitamin A deficiency is a cause of poor vision, bone development and immunity.
    - Vitamin B12 deficiency leads to nerve degeneration and poor RBC formation
    - Folate or vitamin B9 deficiency causes slow growth and anemia
    - Zinc deficiency can cause poor immunity, sensory perception and anemia.

- Signs and symptoms of malnutrition- A symptom is something the patient feels and reports, while a sign is something other people, such as the doctor detect. For example, pain may be a symptom while a rash may be a sign. The general signs and symptoms include:
    - Loss of fat (adipose tissue)
    - Breathing difficulties, a higher risk of respiratory failure
    - Depression
    - Higher risk of complications after surgery and lower healing hence longer recovery
    - Higher risk of hypothermia - abnormally feeling cold and low body temperature
    - The total number of some types of white blood cells falls; consequently, the immune system is weakened, increasing the risk of infections.
    - Lower sex drive and problems with fertility
    - Reduced muscle and tissue mass
    - Tiredness, fatigue, apathy and irritability
    - In more severe cases:
        - Skin may become thin, dry, inelastic, pale, and cold
        - Eventually, as fat in the face is lost, the cheeks look hollow and the eyes sunken

- Hair becomes dry and sparse, falling out easily
- Sometimes, severe malnutrition may lead to unresponsiveness (stupor)
- If calorie deficiency continues for long enough, there may be heart, liver and respiratory failure
- Total starvation is said to be fatal within 8 to 12 weeks

- Causes of malnutrition are:
  - **Poor diet** - if a person does not eat enough food, or if what they eat does not provide them with the nutrients they require for good health, they suffer from malnutrition. Poor diet may be caused by one of several different factors. If the patient develops dysphagia (swallowing difficulties) because of an illness, or when recovering from an illness, they may not be able to consume enough of the right nutrients.

  - **Mental health problems** - some patients with mental health conditions, such as depression, may develop eating habits which lead to malnutrition. Patients with anorexia nervosa or bulimia may develop malnutrition because they are ingesting too little food.

  - **Mobility problems** - people with mobility problems may suffer from malnutrition simply because they either cannot get out enough to buy foods, or find preparing them too arduous.

  - **Digestive disorders and stomach conditions** - some people may eat properly, but their bodies cannot absorb the nutrients they need for good health.

  - **Alcoholism** - this is a chronic (long-term) disease. Individuals who suffer from alcoholism can develop gastritis, or pancreas damage. These problems also seriously undermine the body's ability to digest food, absorb certain vitamins, and produce hormones which regulate metabolism. Alcohol contains calories, reducing the patient's feeling of hunger, so he/she consequently may not eat enough proper food to supply the body with essential nutrients.

  - **Food shortage**, price and distribution

  - **Lack of breastfeeding**

7) Impact of Malnutrition on Health and Development

- Malnutrition and starvation have devastating impact on children, adults and especially on pregnant women. They also have severe and far-reaching socio-economic impacts.
  - **Effects on children** - Mental retardation, stunted growth, poor immune system, micronutrient deficiency, GI tract infections, anemia and inevitably – death.

- **Effects on pregnant women** - Besides the health of the child being poor, a pregnant woman might have difficult labour, postpartum hemorrhage and anemia.

- **General effects** - Weak immunity, inactivity of muscles, apathy, depression, and kidney function impairment.

- Malnourished children experience developmental delays, weight-loss and illness as a result of inadequate intake of protein, calories and other nutrients. Because orphaned and institutionalized children may experience one or several macronutrient and micronutrient deficiencies, they are at risk for a variety of short-term and long-term complications:

    - **Short-Term Implications** - Because so much development occurs in the first few years of life, nutrient deficiencies can have major short-term implications in young children.
        - ***Immune Implications*** - Malnourishment can greatly compromise a child's immune system, making them more susceptible to infectious diseases. Particularly in institutions where there are poor sanitary practices, children are vulnerable to infections from other children or caregivers.

        - ***Growth Implications*** - A child may contract an infection due to poor nutritional status. In turn, a gastrointestinal infection places the child at even greater risk for nutrient deficiencies because nutrients are unable to be absorbed properly. Consequently, nutrient deficiency combined with infection can cause growth retardation.

        - Additionally, a deficiency in one nutrient may lead to a deficiency in another nutrient. For example, deficiencies in iron, magnesium and zinc can cause anorexia and thereby result in reduced intake of other important nutrients such as protein. Low lipid intake can also affect the absorption of important fat-soluble vitamins such as vitamins A and Zinc and protein deficiencies can retard bone growth and development, putting a child at risk for long-term complications.

- **Long-Term Implications** - The short-term implications of malnutrition eventually give way to long-term complications, such as growth and cognitive delays:
    - ***Growth Implications*** - Malnutrition not only impacts growth in the short term, but can also limit total bone growth. Additionally, children classified as low height-for-age (stunted) may never be able to regain lost growth potential if they continue to live in a nutritionally deprived situation.
    - ***Cognitive Implications*** - Malnutrition negatively effects brain development causing delays in motor and cognitive development, such as:
        - Attention deficit disorder
        - Learning disabilities and impaired school performance
        - Decreased IQ scores
        - Memory deficiency
        - Reduced social skills
        - Reduced language development

********Field practice *********

Group1. Surveillance of food chain

1. Develop a food contamination monitoring questionnaire
2. Use the questionnaire to assess foodstuff in a local market

Group2. Nutritional epidemiology

1. Identify all the relationship between nutrition and health
2. Develop a food frequency assessment tool
3. Use the tool to assess the food frequency among pupils attending a local primary school

Group3. Clinical nutrition and diabetes

1. Develop a dummy table eliciting cases of diabetes by age and sex
2. Use the dummy table to capture the number of diabetes cases in a nearby hospital for 5 months
3. Randomize 10 cases of diabetes notes and assess presence of nutritional therapy

Group4. Nutrition education

1. Identify communication strategies that would be suitable in promoting adoption of food choice and nutritional behaviors
2. Use the communication strategy to sensitize 5 mothers with children having malnutrition related conditions in a pediatric ward in a nearby hospital
3. Use your mobile phone to take a picture of sensitization session going on

Group5. Food and nutrition policy

1. Visit a nearby hospital, identify nutrition office or officer, ask about all policy documents on nutrition
2. Make a tour in MCH clinic, medical ward and pediatric ward to identify availability of nutritional policy documents
3. Explain in plenary the content of the policy document to the class

Group6. Food industry and standard agency

1. Visit a nearby supermarket, sample 10 different foodstuff to identify the food industry that has manufactured it
2. Identify 10 foodstuff at the shelf and document all the ingredients that makes the foodstuff

- Identify if the food's safety has been certified by the Kenya Bureau of Standards.

Group7. Mass catering

1. Visit the Huduma hospital rationing store and identify different supplies that are catered
2. In each of the supply, identify the quantity and frequency of catering
3. Describe the documentation of the supplies on arrival till during usage

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END

Unit 13. Planning and Evaluating Community Health Services

1) Introduction to Planning and Evaluation

- **Planning** - is the process of arranging activities required to achieve a desired goal. It is the first and foremost activity to achieve desired results.

- **Evaluation** - is an assessment of something (a project/service or activity) to determine its worth, fitness

- **Community health services** – essential health services that are practiced or provided at individual, family and community levels. These services aim at:
    - Encourage, support and empower residents to be healthy, build capacity for self-sufficiency, and improve the health and well-being of the community.
    - Promoting healthy choices through policy development, community engagement, education and information sharing
    - Protecting the health and well-being of the community
    - Ensuring access to quality health and social services through collaboration with individuals, families, institutions and available resources in the community
    - Providing culturally and ethnically sensitive services to the community
    - Engaging in on-going planning and evaluation in partnership with the community

- **Planning community health services** – This is the process of identifying community health needs and arranging essential health activities that aim at empowering the community to be healthy. It indicates what is to be done, when is it done, who will do it and how will it be done.

- **Evaluating community health services** – It is also called community health assessment. This is assessment of the essential health activities to determine whether it has achieved its aim of empowering the community to be healthy.

2) Purposes of Planning and Evaluating Community Health Services

- The purposes of planning and evaluating community health services are:
    - To increase the capacity of communities to plan, implement, and evaluate comprehensive, community-based health programs targeted toward priority health problems.
    - It helps in identifying and good use of available resources in the community in supporting the essential health activities
    - Ensures a systematic implementation of activities

- It establishes a health working teams
- Defines key data to be collected and used
- Set health priorities, and design and evaluate interventions
- Identify and address priority health problems or special population to be addressed

- A planning cycle brings together all aspects of planning into a clear and unified process. It helps to ensure that your plans are fully considered, well focused, resilient, practical and cost-effective. The cycle includes:
  - A situation analysis,
  - Formulation of objectives,
  - Selection of strategies,
  - Development of an operational plan,
  - Implementation and evaluation, which lead, in turn, to a new situation analysis.

3) Community Health Cycle

- Also called community action cycle
- This is a methodology for engaging community leaders and members in a process of community level advocacy and collective action for addressing health issues.
- The cycle is summarized below:

4) Choosing Community Health Priorities

- Most communities do not have the resources to address all of their health problems and target groups at once.
- They must set priorities and plan to address some problems initially and others over time.
- The following are steps to prioritize community health needs:
    - Identify criteria for prioritization i.e.:
        - Magnitude of the problem
        - Severity of the problem
        - Need among vulnerable population
        - Community capacity and willingness to act on the issue
        - Availability of resources to be used in addressing the issue
        - Existing interventions that are focusing on the issue
        - Whether the issue is a root cause of the other problems
        - Trending health concerns in the community
        - Ability to have measurable impact on the issue

    - Assign preference scale (1-5) whereas 1 is the least and 5 is the highest
    - List all the community problems then assign the scores against each problem
    - Sum up the totals at the right side of the table to determine the total value of each problem
    - Problem with the highest score becomes the priority issue

5) Setting Community Health Goals

- Goal setting involves establishing what one wants to achieve
- Setting goals helps people work towards their own objectives.
- Characteristics of a good goal:
    - **Specific** - When setting goals, they should answer the highly specific questions of who, what, where, when, and why.
    - **Measurable** - In order for us to track our progress, goals should be quantifiable.
    - **Attainable** - It is important to evaluate your situation honestly and recognize which goals are realistic, and which are a little far-fetched.
    - **Relevant** - Is this goal relevant to your life? Does this match my needs?
    - **Time-related** - Setting a "due date" to meet goals not only keeps you on track, but it prevents pesky daily roadblocks from getting in the way.

- Facts about goal setting include:
    - Specific, realistic goals work best
    - It takes time for a change to become an established habit
    - Repeating a goal makes it stick
    - Pleasing other people doesn't work
    - Roadblocks don't mean failure

- How to write goals and objectives:
    - Goals are broad, abstract statements of intent that help create a vision of what you are striving to accomplish.

Example: *Our goal is to reduce the number of premature deaths due to heart disease in our community.*

    - Objectives are measurable, specific statements that lead toward program goals and define what change the community will try to achieve.
    - Each objective should answer these questions:
        - Who will receive the intervention?
        - What health benefit should these persons receive?
        - How much of that benefit should they receive?
        - By when should it be achieved?

For example:

- *By 2020, the prevalence of smoking among county residents aged 18 years and older will be reduced by 15% from 25% to 21%.*

- *By 2019, the rate of fatal injuries among county residents caused by drinking and driving will be reduced by 15% from 7/1,000 to 5/1,000.*

- Objectives are active, working tools and not merely academic exercises. An objective:
    - Specifies a single key result.
    - Specifies a target date.
    - Is specific and quantitative.
    - Specifies what and when, not why and how.
    - Is readily understandable to those involved.
    - Is realistic, attainable, yet a challenge.
    - Provides limits to expenditures of time and effort.
    - Identifies criteria for evaluating achievement.
    - Provides orientation to cooperating agencies in the community.

- Community health planning uses two types of objectives to clarify community goals:
    - **Behavioral objectives** - refer to those behavioral risk factors that contribute to the cause of death specified in your community goals

    - **Intervention objectives** - refer to the intervention activities you plan to undertake

- The community goal is more general, the behavioral objectives are more specific, and the intervention objectives the most specific.

Examples:

Community goal:

Our goal is to reduce the number of premature deaths due to heart disease in our community.

Behavioral objectives:

- *By 2000, the prevalence of county residents who smoke will be reduced by 20%, from 32% to 25.6%.*
- *By 2000, the prevalence of physically inactive adults in our county will be reduced by 15%, from 38% to 32%.*

Intervention objectives:

- *By January 2020, 20% of participants in a "Quit and Win" smoking cessation contest will still be nonsmokers one year after the contest (January 1994).*
- *By December 2019, the rate of onset of smoking among county school students, grades 6-9, will be reduced by 20% from 158/1,000 to 128/1,000.*
- *By August 2019, the county school board will set policy that allows the community to use school playing fields for evening and weekend recreational activities.*
- *By July 2020, 5 companies that employ 50 or more workers in the community will provide access to programs that address physical activity, good nutrition, and cessation of tobacco use.*

6) Project Planning Matrix

- It is required to develop a project planning matrix (also called Detailed Implementation Plan)
- It gives a description of the community health project

Example:

Goal: Improve health of the community in Huduma community

Objective	Activity	Time	Responsible person	Amount	Source of cash	Threats/ assumptions
To reduce the number of deaths due to diarrheal diseases from 20 per month to 15 per month by Dec 2019	1.Distribute Chlorine to every homes	Jan	CPHO	30,000	DMOH	
	2.Educate family members in 20 homes in the use of water treatment	March	CHPO	-	-	Rain
	3.Drill 2 boreholes in the community	April	Water engineer	200,000	County treasury	Landscape
	4.Construct pit latrines in 30 homesteads	Aug	Water and sewerage office	90,000	KEWASCO	
	5.Provide ORS to children with diarrhea	Dec	Area nurse	20,000	DMOH	Stock out at KEMSA

7) Organization of Community Health Services

- The following are steps in organizing a community health services:

  Step I: Mobilizing the community - Mobilizing the community is an ongoing process that starts in step I as a community organizes to begin planning and continues throughout the process. During this step:
  - The community to be addressed is defined,
  - Participants are recruited from the community
  - Partnerships are formed
  - Demographic profile of the community is completed

  Step II: Collecting and organizing data - Step II begins when the community members form working groups to obtain and analyze data on mortality, morbidity, community opinion, and behaviors. These data are obtained from various sources, include quantitative data (e.g., vital statistics and survey) and qualitative data (e.g., opinions of community leaders).

  Step III: Choosing health priorities - During this step, objectives related to the health priorities are set. The health priorities to be addressed initially are selected.

  Step IV: Developing a comprehensive intervention plan - Using information generated during steps II and III, the community group chooses, designs, and conducts interventions during this step.

  Step V. Build on existing services - In order to prevent duplication and to integrate the existing services, the community group identifies and assesses resources, policies, environmental measures, and programs already focused on the risk behavior and to the target group.

  Step VI: Evaluating plans - Evaluation is an important part of the planning and implementation processes. It is ongoing and serves two purposes: to monitor and assess progress during the five phases of planning and to evaluate interventions. The community sets criteria for determining success and identifies data to be collected.

- In each of these steps, community members are involved and are put to take lead in order to ensure sustainability, ownership and accountability.

8) Measures of Success and Outcome in Community Health

- There are 4 essential key success measures that are all of great value. The 4 essential key measures are:
  - **Financial viability** - Example: profitability.

- **Customer satisfaction** - Example: performance on customer satisfaction surveys.
- **Employee satisfaction** - Example: performance on employee satisfaction surveys.
- **Contribution to society** - Example: number of trees saved by developing paperless processes.

- These measures are important because:
  - Financial viability measures organizational survival and growth.
  - Customer satisfaction is important because without happy customers the organization will fail.
  - Employee satisfaction is important because over the long term it is impossible to have an organization with unhappy employees that has happy customers
  - Contribution to society (e.g., environment, ethics, safety, social responsibility) is important because every organization needs more than a simple profit motive to attract and retain the best talent and to sustain itself over time. An organization in which greed is a core value will ultimately devour itself.

- Outcome measures are long terms effects as a result of the outputs.
  - Outcome measurement is a systematic way to assess the extent to which a program has achieved its intended outcomes.
  - It helps understand whether the program is effective or not.
  - Outcome evaluations examine the results of a program (intended or unintended) to determine the reasons why there are differences between the outcomes and the program's stated goals and objectives.

9) Evaluation of Community Health Program

- Community health evaluation is systematic assessment of how well a program is working in a community and why.

- Through evaluation, the implementers of community health services can:
  - Create more effective and efficient programs
  - Make better management decisions
  - Support new and innovative approaches and emerging practices
  - Continuously improve existing programs
  - Subsequently improve human health and the environment

- The following are the purposes of evaluation:
    - Answer questions about projects, policies and programs, particularly about their effectiveness and efficiency.
    - Assess how well a program is working and why.
    - Implementers can make better management decisions; support new and innovative approaches and emerging practices; continuously improve existing programs; and subsequently, improve human health and the environment.
    - Evaluations should help to draw conclusions about five main aspects of the intervention:
        - ✓ Relevance
        - ✓ Effectiveness
        - ✓ Efficiency - Finally, cost-benefit or cost-effectiveness analysis assesses the efficiency of a program. Evaluators outline the benefits and cost of the program for comparison. An efficient program has a lower cost-benefit ratio.
        - ✓ Impact
        - ✓ Sustainability

- The following are types of program evaluations:
    - **Design** - A design evaluation is conducted early in the planning stages or implementation of a program. It helps to define the scope of a program or project and to identify appropriate goals and objectives. Design evaluations can also be used to pre-test ideas and strategies.

    - **Impact** - An impact evaluation is a subset of an outcome evaluation. It assesses the causal links between program activities and outcomes. This is achieved by comparing the observed outcomes with an estimate of what would have happened if the program had not existed (e.g., would the water be swimmable if the program had not been instituted).

    - **Cost-effectiveness** - Cost-effectiveness evaluations identify program benefits, outputs or outcomes and compare them with the internal and external costs of the program. Cost-effectiveness evaluations identify program benefits, outputs or outcomes and compare them with the internal and external costs of the program. The impact evaluation determines the causal effects of the program. This involves trying to measure if the program has achieved its intended outcomes, i.e. program outcomes.

- Evaluation result is measured by indicators:
    - **Input indicators** – are efforts or what you invest in an activity. These can be resources e.g. money, personnel, time etc.

    - **Process indicators** – are procedures, methods or steps followed during implementation of an activity. A process evaluation assesses whether a

program or process is implemented as designed or operating as intended and identifies opportunities for improvement. Process evaluations often begin with an analysis of how a program currently operates. Process evaluations may also assess whether program activities and outputs conform to statutory and regulatory requirements, policies, and program design or customer expectations.

- **Output indicators** – are immediate outcome or results of an activity

Example of M&E plan

Goal: Improve health of the community in Huduma community

Objective	**Activity**	**Indicators**	**Means of verification**
To reduce the number of deaths due to diarrheal diseases from 20 per month to 15 per month by 2015	1.Distribute Chlorine to every homes	# of homes supplied with chlorine # of homes with patients with diarrhea # of chlorines distributed per home	Household survey Household survey Distribution list
	2.Educate family members in 20 homes in the use of water treatment	# of homes covered with education on use of water treatment # of family members educated on use of water treatment # of educated family members actually treating water	Education program Education report Home visit
	3.Drill 2 boreholes in the community	# of boreholes drilled in the community # of drilled boreholes has water # of people fetching water from the borehole daily	Survey Survey Survey
	4.Construct pit latrines in 30 homesteads	# of latrines constructed # of homes with latrines # of constructed latrines are in use	Construction report Household survey Household survey
	5.Provide ORS to children with diarrhea	# or ORS sachets provided # of children provided with ORS	S11 form ORS register