**DISEASE SURVEILLANCE (PG 139)**

**LEARNING OBJECTIVES**

* By the end of the session, the learner should be able to:

1. \*Define the term disease surveillance
2. State the purpose of disease surveillance
3. \*Outline types of disease surveillance systems
4. \*Describe steps in EPI disease surveillance
5. Describe steps in investigation for the priority EPI target diseases.
6. Identify the sources of surveillance data
7. State the uses of surveillance data
8. **WHAT IS DISEASE SURVEILLANCE**

* Is the collection, analysis and interpretation of data to determine disease trends and patterns?
* Disease surveillance provides information such as disease incidence, morbidity and mortality and progress in achieving disease control goals, impact of immunization strategies on disease incidence and disease trends.
* Disease surveillance is used as a tool to identify the presence of infectious diseases and guide actions to prevent them from becoming threats to public health.

1. **TYPES OF DISEASE SURVEILLANCE SYSTEMS**

* Include:
* **Facility-Based Routine Surveillance**
* Is where health workers are required to report on the number of individuals that come to their facility and are diagnosed with notifiable diseases? The process of detecting and reporting information on diseases that bring patients to the health facility is known as passive surveillance.
* **Community-Based Surveillance**
* With proper training, members of the community can expand facility-based surveillance by detecting and reporting cases that may go undetected by the health facility.
* **Sentinel Surveillance**
* Is the collection and analysis of data by designated institutions selected for their geographical location, medical speciality and ability to accurately diagnose and report high quality data?

1. **STEPS IN EPI DISEASE SURVEILLANCE**

* Surveillance for communicable diseases involves:

1. Case Detection
2. Investigation
3. Reporting
4. Analysis and interpretation
5. Presentation
6. Response

1. **CASE DETECTION**

* Forms the 1st step of surveillance.
* To accurately detect disease, health workers need case definitions that are appropriate for the local context, and they need practice in applying them, especially when they do not see a specific illness very often e.g polio.
* Case detection can be a challenge when it comes to clinical diagnoses since many illnesses have similar symptoms e.g fever, and rash, and can be differentiated only by laboratory tests that may not be accessible.
* Each health facility should have a disease surveillance focal person who should co-ordinate through availing the specimen collection tools, carry out Active Case Search and communicate to the County Disease Surveillance Co-rdinator (CDSC).

1. **IVESTIGATION AND REPORTING**

* The Ministry of Health through the Health Management Information System (HMIS) requires that health facilities routinely report the total count of cases of each reportable disease that has occurred within a specified period of time usually monthly.
* When no cases have occurred during the period, the report should indicate this fact (Zero Report).

1. **ANALYSIS AND INTERPRETATION**

* Health workers require the knowledge to analyze the data collected and understand their implications. This helps in local decision-making and planning.
* Health workers need to be able to interpret trends and patterns of disease in order to enact prompt control measures and avoid actions that are not appropriate.

1. **PRESENTATION**

* Can be done using graphs, tables, maps. E.g Graph of Measles Surveillance throughout the Year. (No. of Cases Against Time in Months)

1. **RESPONSE**

* Disease surveillance enables managers to respond to existing problems and take steps to prevent anticipated problems. Responses may include verification of reported cases, treatment, search for new cases, or supplemental vaccination activities, but all must be directed to the disease and the situation.

1. **STANDARD CASE DEFINITIONS FOR EPI TARGETED DISEASES**

* KEPI currently targets three (3) diseases namely: Polio (Acute Flaccid Paralysis), Measles and Neonatal Tetanus.
* Inform the community health workers, traditional healers, birth attendants, health workers who conduct outreach activities in hard-to-reach areas, and the community leaders about the priority diseases and conditions under surveillance in the area.
* Simplified community messages on the 3 targeted diseases include:
* **Measles**: Any person with fever, generalized rash and cough, coryza or conjunctivitis (red eyes).
* **Polio**: Weakness or floppiness of sudden onset, not due to trauma, in a child less than 15 years of age.
* **Neonatal Tetanus**: Normal suck and cry for the 1st 2 days of life + onset of illness between 3 and 28 days of age + inability to suck followed by stiffness and/ or convulsions.
* **Yellow Fever**: Any person with sudden onset of high fever (>39 degrees C rectal or 38 degrees C axillary), followed by jaundice within two weeks of onset of 1st symptoms.