**Define:**

**1) Public health surveillance:** is the ongoing, systematic collection, analysis, and interpretation of health-related data essential to planning, implementing, and evaluating public health practice.

**2) Survey:**

A survey is an investigation that uses a “structured and systematic gathering of information” from a sample of “a population of interest to describe the population in quantitative terms.”

**3) Notification:**

A notification is the reporting of certain diseases or other health-related conditions by a specific group, as specified by law, regulation, or agreement.

**4) Routine health information system:** a passive system in which regular reports about diseases and programs are completed by public health staff members, hospitals, and clinics.

**5) Health information and management system:** a passive system by which routine reports about financial, logistic, and other processes involved in the administration of the public health and clinical systems can be used for surveillance.

**6) Categorical surveillance:** an active or passive system that focuses on one or more diseases or behaviors of interest to an intervention program.

**7) Integrated surveillance:** a combination of active and passive systems using a single infrastructure that gathers information about multiple diseases or behaviors of interest to several intervention programs.

**8) Syndromic surveillance:** an active or passive system that uses case definitions that are based entirely on clinical features without any clinical or laboratory diagnosis.

**Complete:**

**1) Goal of Public Health Surveillance:**

The goal of public health surveillance is to provide information that can be used for health action by public health personnel, government leaders, and the public to guide public health policy and programs.

**2) Uses of Public Health Surveillance:**

1) Identify patients and their contacts for treatment and intervention.

2) Detect epidemics, health problems, and changes in health behaviors.

3) Estimate magnitude and scope of health problems.

4) Measure trends and characterize disease.

5) Monitor changes in infectious and environmental agents.

6) Assess effectiveness of programs and control measures.

7) Develop hypotheses and stimulate research.

**3) Types of Public Health Surveillance:**

**A) Active surveillance** – A system employing staff members to regularly contact heath care providers or the population to seek information about health conditions.

**B) Passive surveillance** – A system by which a health directorate receives reports submitted from hospitals, clinics, public health units or other sources.

**4) Surveillance Process include:**

1. **Collection of data**:

Multiple qualitative and quantitative approaches are used to monitor the environment, depending on the problem, setting, and planned use of the monitoring data.

**2. Analysis of data:**

o **Descriptive analysis:**

Time, person, place

o **Analytic analysis:**

Case-control study or cohort study, for example.

**3. Interpretation of data.**

**4. Dissemination of data:**

\* To policy makers and administrators for action

\* To media to avoid misinformation and misunderstanding.

**5. Link to action:**

Action based on public health surveillance includes:

\* Describing the burden of or potential for disease.

\* Monitoring trends and patterns in disease, risk factors, and agents.

\* Detecting sudden changes in disease occurrence and distribution.

\* Providing data for programs, policies, and setting priorities.

\* Evaluating prevention and control efforts.

**5) The main types of information collected by surveillance systems to measure the relative importance of a disease are:**

* Incidence/prevalence.
* Severity (case fatality rate).
* Mortality rate.
* Productivity loss.
* Premature mortality (YPLL).
* Costs in medical care.
* Preventability of disease.

**True or False:**

1) Surveillance systems are important tools for targeting, monitoring, and evaluating many health risks and interventions. ( T )

2) The methods used for infectious disease surveillance form a spectrum that evolves with the economic development of a country. ( T )

3) Exposure surveillance is the monitoring of members of the population for the presence of an environmental agent, its metabolites, or its clinically unapparent effects. ( T )

4) Food-borne disease (FBD) surveillance, for example, is divided into four distinct levels of surveillance. ( T )

5) Monitoring the environment is not critical for ensuring that it is healthy and safe. ( F )

6) Without correct and current data, diseases are misunderstood, health programs do not accomplish their goals, and resources are incorrectly allocated. ( T )

7) Governments and organizations should understand the importance of surveillance in disease and epidemic control, because in many cases, when surveillance fails, the program fails. ( T )

8) Surveillance systems need to be designed and implemented to meet top management's needs for focused, reliable, timely evidence gathered efficiently and presented effectively. ( T )

9) In a sentinel surveillance system, a post-arranged sample of reporting sources agrees to report all cases of defined conditions, which might indicate trends in the entire target population. ( F )

10) Sentinel surveillance is excellent for detecting large public health problems, but it may be insensitive to rare events, such as the early emergence of a new disease, because these infections may emerge anywhere in the population. ( T )