

Classification of Epidemiology

Objectives

The student have to know :

1-Classification of Epidemiology

2- Purpose of epidemiology

3-Types of epidemiological information

4-Sources of epidemiological information

Types of epidemiology

1- **descriptive epidemiology** in which we ask the following questions:

- What is the problem? How frequent is it?
- Who are the people involved?
- Where does it take place?
- When does it take place?

2- **analytical epidemiology** in which we attempt to analyze the causes or determinants of disease by testing hypotheses to answer such questions as:

- How is the disease caused?
- Why is it continuing?
- Why is it affecting some persons rather than others?

3- intervention or experimental epidemiology
in which clinical and community trials are used to answer questions related to the effectiveness of new drugs or methods for controlling disease or improving underlying conditions.

4- **evaluative epidemiology** which is a recent development in the field of epidemiology . It attempts to measure the effectiveness of different health care programmes and to answer such question as: Has there been any improvement in the health status of the population in response to the application of the program ?

PURPOSES OF EPIDEMIOLOGY

1. Community diagnosis. What are the current and potential health problems of the community or population?
2. Historical or time trends. Is the health of the population or community improving, deteriorating or unchanging with the passage of time?
3. Individual risks and chances. To estimate incidence rates and relative risks.
4. Identification of etiological factors.

5. Description of the natural history of disease. The understanding of such history is essential for screening and early intervention.
6. Classification of disease on the basis of causes or on the basis of features .
7. Clinical decision analysis-clinical epidemiology.
8. Administrative uses- planning, organization and evaluation of promotive, protective, curative or rehabilitative health care services.

Types of epidemiological information

1. Demographic information including total numbers, age and sex composition, growth rates, fertility indicators, population migration and geographical distribution.
2. Information on morbidity and mortality, related to frequency, distribution and causes.
3. Information on the level and distribution of available health care services. Examples are the number of hospital beds, number of nurses, number of health centres and others.

Sources of epidemiological information

1. Routine statistics sources
2. Household surveys
3. Population censuses
4. Publications
5. Electronic sources: Internet and Medline

Quiz

Enumerate the followings:

1-types of epidemiology

2- purposes of epidemiology

3- types of epidemiological information

4-sources of epidemiological information

Thanks