

## CHAPTER 1

EPIDEMIOLOGY AND ITS BASIC MEASUREMENTS

by

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Definition, Purpose and Relation to Patient Care :

Epidemiology is the study of disease occurrence in human populations. The primary units of concern are groups of persons, not separate individuals. Thinking in epidemiologic terms often seems foreign to clinicians and other health care professionals, who are trained to think of the unique problems of each particular patient.

Whether one focuses on individuals or groups should depend upon what one is trying to accomplish. In caring for a patient, the need to individualize the diagnosis and threatment for that unique patient is obvious. However, groups of persons must be studied in order to answer certain important questions. These questions often relate to the etiology and prevention of disease and to the allocation of effort and resources in health care facilities and in communities.

Some examples of questions that require epidemiologic study of human populations are :

When can we expect the next influenza epidemic ?

Why are we seeing so much coronary heart disease these days ?

How can cancer of the uterine cervix best be prevented ?

How often should healthy patients be given medical checkups and what examinations and tests should these checkups include ?

Although they also focus on groups, clinical studies of the natural course of disease or the effects of treatments should be distinguished from epidemiological studies. In general, epidemiologists are concerned