

## A Short Commentary on Epidemiology and Public Health.

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### Commentary

Epidemiology is “the study of the distribution and determinants of health-related states or events in specified populations, and application of this study to control of health problems. Observation, surveillance, hypothesis-testing analytic research methods, clinical, data and experiments are come under this epidemiology studies. We can evaluate both existing and new preventive and therapeutic measures and mode and transmission of health care delivery.

The epidemiology field mainly focuses on population’s health or community’s health. The sample size is very large, such as a group of community, nation or continent, or groups within larger populations. Epidemiology is concerned not only with geographical groupings: it also focuses on diverse groups as set of people, different occupations or residents in nursing homes. The key sample is that it investigates a ‘population at risk’: ‘the population at risk is well describes as set or group of people, healthy or sick, who would be counted as cases if they had the disease being studied’. It is important to ensure that the population under study is capable of having the disease, illness or condition.

Epidemiology is identifying the health problems in particular communities, can assess the relevance of prevention and evaluate the effectiveness of preventive interventions. Epidemiological researchers can provide data or valuable information about the health of their population or group of population. This type of study is important to understand the basic principles on epidemiological methods and techniques. Epidemiology studies mainly based on the principles of the ‘scientific method’. Before exploring some of the methods and procedures used in epidemiology, the origins of modern epidemiology are briefly examined.

Mortality data method is used to do death certificates and from census and population registers are routinely collected;

from these the death rate in a population can be calculated. To calculate a death rate the number of deaths recorded is divided by the number of people in the population, and then multiplied by 100, 1,000 or another convenient figure. Epidemiology studies can be applied to all diseases and other health-related events. Present, the scope of epidemiology studies has been greatly enlarged during the past two decades and this type of studies are extended to endemic communicable diseases and non-communicable infectious diseases also. Disease causation, Disease transmission, Outbreak investigation, Disease surveillance, Screening, comparisons of treatment effects such as in clinical trials all are comes under major areas of the epidemiological studies.

Modern population-based health management is complex, requiring a multiple set of skills (medical, political, technological, mathematical, etc.) of which epidemiological practice and analysis may be a core component, that's unified with management science to supply efficient and effective health care and health guidance to a population. This task requires the forward-looking ability of recent risk management approaches that transform health risk factors, incidence, prevalence and mortality statistics (derived from epidemiological analysis) into management metrics that not only guide how a health system responds to current population health issues but also how a health system are often managed to raised answer future potential population health issues.

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