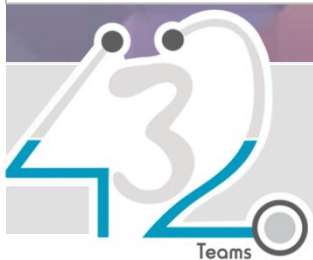


Objectives

By the end of this lecture students will be able to:

1. Explain common definitions and terms used in Public Health
2. Understand application of the definitions in different settings



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Public Health

Organized measures (whether public or private) to **prevent** disease, **promote** health, and **prolong life** among the population as a whole.

Three Public Health Functions:

1. **Assessment** & monitoring of the health of communities and populations.
2. **Development of policies** to solve local and national health problems.
3. To **assure** access to appropriate and cost-effective care.

Definitions:

Health Promotion:

process of enabling people to (1) **increase control** over, and (2) to **improve** their health.

Primary Care:

First line of (1) curative and (2) preventive care. **Made available by:** the **primary care providers** such as GPs, nurses, midwives, paramedical staff.

Primary Health Care:

Is an **approach** towards **health system development**. It includes provision of essential health care that is accessible to all, at a cost that people community country can afford. It requires the services that are practical, scientifically sound and socially acceptable.

Primary Care Vs. Primary Health Care: Primary care provides primary health care. The first is a group of people and the second is the service they provide.

DISEASE PREVENTION:

Measures to (1) **prevent** the occurrence of disease and (2) to **stop** the progress of the diseases, as well as (3) **reduce its consequences**.

Health Education:

Providing (1) **opportunities for learning** through various communication methods, (2) to **improve awareness** about health and health risk factors, and (3) learning skills about **how to prevent**.

Health Behaviors:

Any activity undertaken by an individual, regardless of actual or perceived health status, for the purpose of **promoting, protecting or maintaining health**, whether or not such behavior is objectively effective towards that end.

Lifestyle:

A **way of living** based on identifiable patterns of behavior which are determined by the interplay between an individual's personal characteristics, social interactions, and socioeconomic and environmental living conditions.

Health Behaviors Vs. Lifestyle: the first is anything you would do to protect your health even if it wasn't effective (healthy diet to reduce weight). While the second is a habit of choice determined by your personality, social interactions and your living conditions.

Community:

A specific **group of people**, often living in a defined geographical **area**, who share a common culture, values and norms, are arranged in a social structure according to relationships which the community has developed over a period of time.

Determinants Of Health:

The range of personal, social, economic and environmental factors which determine the health status of individuals or populations.

Epidemiology:

Epidemiology is a basic **science of public health** (public health definition: page1)

EPI: on or upon **DEMOS:** people or population **LOGOS:** study of

Epidemiology is (1) the study of the **distribution** and **determinants of health-related states or events in specified** populations, and (2) the application of this study to the control of health problems. (determinants of health definition: page2)

V S

Health

- A state of complete (1) physical, (2) mental, and (3) social well-being and **not merely the absence of disease or infirmity**. (WHO1948)
- IMPLICATIONS of such definition of health:
Well being & **satisfaction** about health are **subjective phenomena**. Communities need to be **consulted** to find out the current levels of wellbeing and to find out diseases, disease risk factors and other factors (such as poor housing, poor environment which compromise the wellbeing)
Many sectors (health, education, agriculture, police) need to work together to help achieve well being which cannot be achieved with health services only.
What sort of development will lead to health of individual/communities?

Morbidity

- Any departure, **subjective or objective**, from a state of physiological or psychological well-being (i.e. any departure from Health).
In contrast to the words 'disease', 'illness' and 'health problem', the **word morbidity is used in a 'collective' way** to describe the **overall** situation in a community/country about prevalent health issues affecting various population groups.
- **Used for comparison about the relative states of health of communities** i.e. What type of health problems affect different communities? How big or small is the relative burden of morbidity across different communities? etc
- Morbidity trends are **observed over time** i.e. decreasing or increasing over time.

Disease Description

Communicable disease	<p>An illness due to a specific infectious agent or its toxic products that arises through transmission of that agent from reservoir to susceptible host.</p> <p>Diseases that are passed:</p> <ol style="list-style-type: none"> 1. from person to person: via ambient environment or water or waste or food, from insects to persons. 2. from animals to person. <ul style="list-style-type: none"> ✓ Easily transmissible diseases are called contagious diseases ✓ Communicable Disease: HIV, HBV, Herpes... ✓ Non- Communicable Disease: Diabetes, cancer, Stroke....
Nosocomial infections	<p>(Syn: hospital-acquired infection)</p> <p>An infection originating in a medical facility; e.g., occurring in a patient in a hospital or other health care facility in whom the infection was not present or incubating at the time of admission.</p> <ul style="list-style-type: none"> ✓ Includes infections acquired in the hospital but appearing after discharge; it also includes such infections among staff.
Endemic disease	<p>The constant presence of a disease within a given geographic area or population group; may also refer to the usual prevalence of a given disease within such area or group. e.g. Bilharziasis in Egypt.</p>
Epidemic disease	<p>The occurrence of more cases of a disease than expected in a given area or among a specific group of people over a particular period of time.</p>
Pandemic disease	<p>An epidemic occurring over a (1) very wide area (several countries or continents) at (2) the same time and usually affecting a (3) large proportion of the population. e.g. Influenza A H1N1 in 2009</p>
outbreak	<p>A more or less localized epidemic affecting many people in a group, in a community.</p> <p>e.g. outbreak of food poisoning in an institution.</p>
Sporadic	<p>Cases occur irregularly, haphazardly from time to time and generally infrequently. Cases are few and separated widely in space and time showing no connection to each other.</p>

Definitions:

Agent:

A factor, such as (1) a microorganism, (2) chemical substance, or form of (3) radiation, whose **presence or relative absence (in deficiency diseases)** is essential for the occurrence of a disease.

Carrier:

A person or animal that (1) **harbors the infectious** agent for a disease and (2) **can transmit it** to others, (3) but does not demonstrate signs of the disease.

Host:

A person or other living organism that are susceptible to (**can be infected by**) an infectious agent under natural conditions.

Reservoir of infection:

The reservoir of an agent is the **habitat** in which an infectious agent normally (1) lives, (2) grows, and (3) multiplies.

Reservoirs include: Humans, animals, or the environment.

Pathogenicity:

The **ability of an agent to cause disease after infection**, measured as: the proportion of persons infected by an agent who then experience clinical disease.

Virulence:

The **ability of an infectious agent to cause severe** disease, measured as: the proportion of persons with the disease who become **severely ill or die**.

Communicable period:

The time during which an infectious agent maybe **transmitted directly or indirectly** from an infected person to another person or animal.

Incubation period:

The time interval **from exposure** to an infectious agent **to the onset** of symptoms of an infectious disease.

Risk Factor:

An aspect of personal behavior or lifestyle, an environmental exposure, or a hereditary characteristic that is **associated with an increase in the occurrence** of a particular disease, injury, or other health condition.

Zoonosis:

An infection or infectious disease transmissible under natural conditions from **vertebrate animals to humans**.

Zoonotic diseases include:

1. Brucellosis (cows and pigs),
2. Toxoplasmosis (Cats)
3. Anthrax (sheep),
4. Plague (rodents),
5. Rabies (dogs, bats and other mammals).

MCQs

Q1: What is the scientific term that describes the habitat in which an infectious agent normally lives, grows, and multiplies?

- A. Risk factor**
- B. Reservoir**
- C. Zoonosis**
- D. Carrier**

answer: B

Q2: 4. Which of the following is primarily a zoonotic disease ?

- A. Rabies**
- B. Measles**
- C. Hepatitis A**
- D. Polio**

answer: A

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If you find any Mistakes please contact me:

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