

## ENVIRONMENTAL HEALTH

- 1- Define the terms, Environment, Health, sanitation, public health, environmental sanitation, environmental health
- 2- Categorize the scope of environmental health
- 3- Health and environment

**Environment** is a collective term used to describe all the living and non-living things that make up our surroundings OR

Environment is the aggregate of all the external conditions and influences affecting the life and development of a person, an organization or a society.

**Health:** is a state of complete physical, mental psychological, spiritual and social well-being and not merely the absence of disease or infirmity

**"Public health:** is "the science and art of preventing disease prolonging life and promoting health through the organized efforts and informed choices of society, organizations, public and private, communities and individuals. *prevention of human contact with wastes. OR*

**Sanitation:** *↑* it is the quality of living that is expressed in clean home, clean farm, clean business, clean neighborhood and clean community

**Environmental sanitation;** the control of those factors in the physical environment that may cause disease is often called environmental sanitation or hygiene

**Environmental health:** is the branch of public health that is concerned with all aspects of the natural and built environment that may affect human health. Those aspects of the human health and disease that are determined by factors in the environment. eg Cholera bilharzia malaria TB, noise. OR

*Sanitation - prevention of human contact with wastes  
OR promoting health through prevention of human contact with hazards associated with lack of healthy food, clean water, healthy house, control of vectors & clean environment.*

It also refers to the theory and practice of assessing, correcting, controlling, and preventing those factors in the environment that can potentially affect adversely the health of present and future generations.

The purpose of environmental health is to create and maintain ecological conditions that will promote health and prevent diseases

**Ecology:** The science of the relationships between organisms and their environments

**Environmental health science** “The study of those factors in the environment that affect human health”

The scope of environmental health

- 1- Planning, design, construction and maintenance of water supply system to ensure that water is adequate, safe and readily available
- 2- Methods for safe collection and disposal of human excreta
- 3- Control of insects, rodents and animal reservoirs of disease in areas where they are of significant importance
- 4- Collection and disposal of refuse and liquid waste other than excreta
- 5- Food and nutrition
- 6- Supervision of public health aspects of residential areas, schools and public buildings and places of congregations eg swimming pools, camps, festivals,
- 7- control of health hazards arising from occupational exposure in industry, control of industrial pollution

Problems faced

- 1- Treatment and disposal of liquid and air borne waste
- 2- Elimination and reduction of stresses in work places
- 3- Purification of drinking water supplies



- 4- Devt and use of measures to protect hospital workers n medical workers from being infected with diseases eg AIDS, global warming,

## **HEALTH AND ENVIRONMENT**

The environment is a collective term used to describe all the living and non-living things that make up our surroundings. This includes the biological, physical, cultural and social, economic and political environment

### **Types of environment**

The physical environment consists of air, water, climate, and other physical conditions.

The biological environment includes all the living things, the plants, animals, and micro-organisms.

The social and political environment is man-made, he family, culture, beliefs, politics and the government.

The health and survival, of Man depends on his ability to adjust to his environment, eg during evolution man adapted to a wide variety of physical and biological conditions like hot and cold climates, to dry and wet regions, to sea level and mountainous areas, each with its own pattern of vegetation and animals.

Man has also learnt to a greater extent than any other animal to control his immediate environment by such methods as clothes, fires, and shelter.

Man is also altering his environment, sometimes quite rapidly, by population growth, migration, urbanization, industrialization, different methods of agriculture, communications, and so on. Some changes improve the environment while others may damage or destroy it.

Relationship between environment and health

Consider some of the important aspects of the physical environment and how they affect the transmission of disease.

The availability of water for drinking, cooking, and washing is one of the main reasons why rural communities develop in a particular area. Their sources of water are generally unprotected and easily polluted, especially when the number of people in the area using the same water source increases. Man is the reservoir host for many diseases and the unsatisfactory disposal of excreta leads to an increase in faecal-oral transmission and spread of disease.

Inadequate housing, leading to overcrowding, lack of ventilation, and dampness favours the transmission of airborne diseases. Poor siting of houses, too close to where animals are kept, and inadequate disposal of rubbish encourages mosquitoes, flies, and rats and increases the transmission of vector-borne diseases.

The use of agricultural chemicals and the waste products of industry may also pollute water, food, and air.

The control of those factors in the physical environment that may cause disease is often called environmental sanitation or hygiene. It is one of the most important aspects of primary prevention. When trying to control the physical or biological environment it is essential to remember that they are only a part of the total environment—social and political aspects must be considered at the same time.

It is the responsibility of all health workers to help improve the environment. This may be done by health education, by setting an example in your own home, or at your hospital, health Centre, or by assisting in various community development projects.

For this reason it is essential that you have a little background knowledge of environmental control and are able to do the simple things required in villages yourself.



In towns there will be other workers with more knowledge and experience to advice on the more complicated aspects of environmental control. Some of the most difficult environmental problems arise in the rapidly growing unplanned areas of town, the squatter areas or shanty towns, which illustrate again the interrelation of the physical, biological, social, and political aspects of the environment.

- Urbanisation & industrialisation
- Devt as a means to progress (any devt requires intensive use envt) (cannot address & control of Devt (eg industrialisation))

Role of Environmental Health in Public Health  
Envl Health is part of Public Health where primary goal is primary disease & promoting better health.  
Envl Health workers are responsible for  
1- Improving Human Health & protect it from env't or hazard  
2- Developing systems for community & local authority  
3- Provide advice on Health related issues & develop action  
4- Initiating & implementing Healthy hygiene, sanitation & environmental programs  
5- Enforcing environmental legislation  
6- monitoring & evaluating environmental health activities, programs & projects