

Environmental Health

Health Vs Environment

- Meaning of Health : State of Complete physical, mental and social well-being and not merely the absence of disease or infirmities (WHO)
- Environment: the totality of what surrounds man and that which greatly influences his life.
- It can be **physical, biological**, social, cultural any or all of which can influence health status in populations.

Definition of “The Environment”

- All that which is external to the individual host. [It] can be stratified into physical, biological, social, and cultural factors, any or all of which can influence health status in populations.
 - Last, J. M. (Ed.). (1995). *A Dictionary of Epidemiology* (3rd ed.). New York: Oxford University Press.

Environmental Health

- Science and art of accessing, correcting, controlling and preventing the factors in the environment that can affect the health of present and future generations.

The Environment !

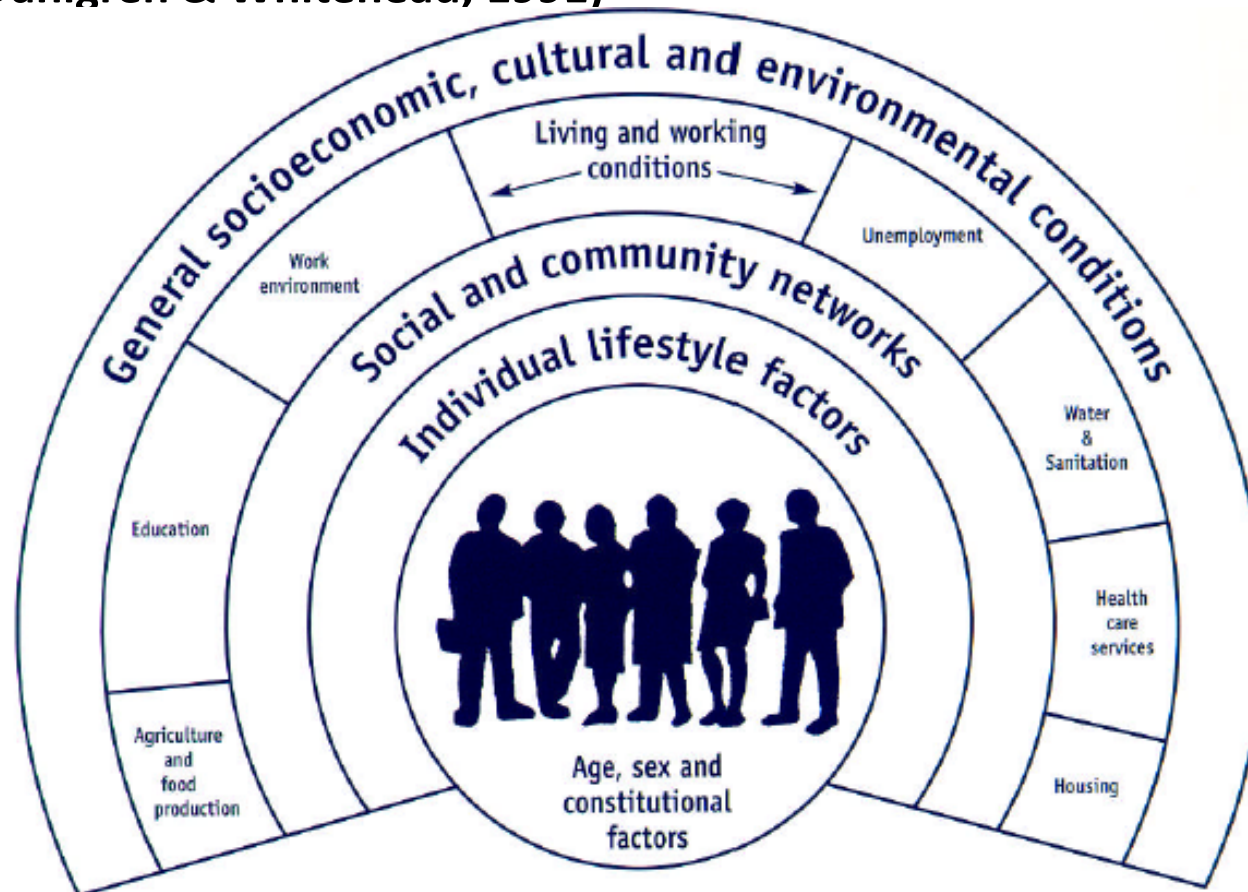
- Environmental factors are vital in health and disease
- Of particular concern are the vulnerable groups:
 - young children and
 - other high risk population group.
- The underlying causes of disease, injury, and death lie beyond the purview of the health care system.
- Physical and behavioural factors in the environment are central in analyzing health issues

Environmental Health Science

- The study of all factors in the environment that affect human health and well being.
 - Factors (“pollutants” or “toxicants”) in air, water, soil and food
 - Transferred to humans by inhalation, ingestion, adsorption, or absorption
 - Result in adverse health effects
- Source: NIEHS charter

Concept of Environmental Health (EH)

- Environmental Health (EH) is
 - ◉ the assessment and management of environmental influences (e.g. chemical, physical, biological, social and psychosocial factors) on human health. The diagram presents the main determinants of health (Dahlgren & Whitehead, 1991)



Components of Environment

- **Physical factors:** Non-living part of environment; air, soil, water, climatic factors e.t.c.
- Chemical factors: Dust, fumes, vapours
- **Biological Factors:** Living components of environment. Plants, animals e.t.c.
- **Social factors:** Man made components, culture, religion, customs, transport and communication, education e.t.c.

Aim of EH

To create and maintain ecological conditions that will:

- Promote health
- Prevent diseases

Challenges of EVH

- Bio-medical orientation of Health
- Ignorance
- Politics of Health care services
- Lack of Political will and Commitment
- Large Scale Corruption
- Poor understanding of proven strategies to improve health status

Concerns for EVH

- There is global concern for EVH in view of several environmental problems e.g.
- Ozone layer depletion/Global warming
- Climate Change
- Trans-boundary pollution
- Threat to human existence and quality of life

International Concerns for EVH

- Public Health Milestones of recent years
 - HFA (Currently being revised by WHO)
 - Ottawa Charter for Health Promotion
 - European Charter for Environment and Health
 - Sundsvall Declaration on Supportive Environment for Health
 - Healthy City Project of WHO (e.g. SIP)
 - Agenda 21

Concerns for EVH (Nigeria)

- Multiple agencies and guidelines with overlapping roles and responsibilities
- FEPA- and the FEPA Decree
- Introduction of NESDs
- Creation of FMEnv.
- NESREA
- Creation of SMEnv.
- Environmental agitations esp. Niger Delta
- NEHAP
- NESP & Guidelines

Scope of EH

- Air quality control & monitoring
- Water pollution control & Safe drinking water
- Noise pollution
- Radiation control
- Food hygiene & safety
- Disease vector control
- Healthy housing

Scope of EH

- Community sanitation
- Waste management & disposal
- Industrial hygiene/safety
- Bioterrorism
- Control of animal reservoir of infection e.g. wild domestic pests, etc.
- Prevention of Control of land Pollution

Effects of Poor EH service

- 2.4 billion people lack access to basic sanitation.
- 2 million people die every year from diarrheal diseases (including cholera) associated with inadequate water supply, sanitation and hygiene.
- The majority are children in developing countries.
- Water, hygiene and sanitation interventions reduce diarrhea incidence by 26% and mortality by 65%.

Effects of Poor EH service

- 200 million people, in 74 countries, are infected with schistosomiasis and soil-transmitted helminths and 20 million suffer severe consequences.
- Basic sanitation reduces schistosomiasis by up to 77%.
- 500 million people are at risk from trachoma and 146 million are threatened by blindness.
- Trachoma can be prevented by improving sanitary conditions and hygiene practices

Thank you for your attention.

- Thank you.