"Environment" is most commonly used to describe the "natural" environment and means the sum of all living and non-living things that surround an organism, or group of organisms.

Includes all elements, factors, and conditions that have some impact on growth and development of certain organism.

Environment includes both biotic and abiotic factors that have influence on observed organism. Abiotic factors such as light, temperature, water, atmospheric gases combine with biotic factors (all surrounding living species).

Environment often changes after some time and therefore many organisms have ability to adapt to these changes. However, tolerance range is not the same with all species and exposure to environmental conditions at the limit of an certain organism's tolerance range represents environmental stress.
Environmentalism

- Is a movement connected with environmental scientists and many of their goals, which include:
  - To reduce world consumption of fossil fuels
  - To reduce and clean up all sorts of pollution (air, sea, river...) with future goal of zero pollution
  - To emphasize on clean, alternative energy sources that have low carbon emissions
  - To promote sustainable use of water, land, and other scarce resources
  - To preserve existing endangered species
  - To protect biodiversity
Natural environment

Beautiful mountain and river

Blue sky and pristine sea shore
Man made environment

Sprawling city

Smokes from the industries
Man made disaster

Oil spill in Korea

Dumping of waste
Environmental health

- Environmental health addresses all the physical, chemical, and biological factors external to a person, and all the related factors impacting behaviours. It encompasses the assessment and control of those environmental factors that can potentially affect health. It is targeted towards preventing disease and creating health-supportive environments.
The questions are…

- How do we prevent disease?
- How do we create a health supporting environment?
- In other words how do we create a society in which everyone has a chance to live long healthy lives?
Determinants of health

- The range of personal, social, economic, and environmental factors that influence health status
  - Social and physical factors
  - Health services
  - Individual behavior
  - Policymaking
  - Biology and genetics
Social determinants

Social determinants of health reflect social factors and the physical conditions in the environment in which people are born, live, learn, play, work and age. Also known as social and physical determinants of health, they impact a wide range of health, functioning and quality of life outcomes.

- Healthful foods, educational and job opportunities, income
- Social norms and attitudes, such as discrimination
- Public safety – exposure to violence, and social disorder
- Social support and social interactions
- Mass media and communication and technologies, such as the Internet or cell phones
- Socioeconomic conditions, rural and urban poverty
- Quality schools
- Transportation options
Physical determinants

- Natural environment, such as plants, weather, or climate change
- Built environment, such as buildings or transportation
- Worksites, schools, and recreational settings
- Housing, homes, and neighborhoods
- Exposure to toxic substances and other physical hazards
- Physical barriers, especially for people with disabilities
- Aesthetic elements, such as good lighting, trees, or benches
Health support

- **Health Services**
- Both access to health services and the quality of health services can impact health. Lack of access, or limited access, to health services greatly impacts an individual’s health status.
Policy

- Policies at the local, state, and national level affect individual and population health. Increasing taxes on tobacco sales, for example, can improve population health by reducing the number of people using tobacco products. Prohibiting smoking in public areas can reduce exposure to cigarette smoke.
Some Terms

- **Community:**
  - a group of people living in the same locality (geographical) and under the same government (politic);
  - District or locality (administrative) in which such a group lives

- **Community health**
  - Is a discipline that deals with the study and betterment of the health characteristics of biological communities.
  - Focuses on geographic areas rather than people.
Society

- A group of humans broadly distinguished from other groups by mutual interest, shared institutions, and a common culture. E.g. society for the blind
- Totality of social relationships among humans
- It can also mean the rich, privileges and fashionable social class
- Secret societies...
Socio-Economic Status

- Refers to level (status) of social and economic position of people within society as reflected by various indicators (measure and compare groups’ SES)

- Social indicators – status (e.g. head of household), education, jobs, housing, access to services (health, recreation facilities)

- Economic indicators – financial position (how much individuals earn), home ownership, assets, levels of dependency on welfare payments.
Environment

- **Physical environment** – physical properties that surround children, youth, and families
- **Social** – nature of relationships
- **Cultural** – values and customs
- **Political** – power distribution
- **Economic** – how goods are produced and distributed
SES and Health Status

- Low-income and ethnic minorities are more likely to be exposed to toxic wastes and other forms of health-threatening environmental conditions.
- Children exposed to airborne toxins indoors
- Parental smoking increases children exposure to a wide variety of indoor toxins. Poorer mothers are less likely to quit and smoke more than higher-income mothers.
- Use of contaminated water among low-income populations.
- Noise associated with low-income residents.
- Residential crowding – linked to income – low-income neighborhood.
Environmental qualities

- Housing, schools, work, and neighborhood quality.
- Housing quality – incomplete bathroom, no sewer/septic tank, holes in floor, open cracks, leaky roof, etc.
- Educational facilities – schools and daycare environment – tied to income
- Poorer people are subject to greater health risks on the job – poor working conditions, risky working conditions, most hazardous working conditions
Communal factors affecting health

- Positive social support from immediate friends and family
- Presence of a sense of community
- Social network
- Social cohesion
- Health resources
- Socioeconomic characteristic
Some studies using SES


Social Determinants of Health: Implications for Environmental Health Promotion

Amy Schulz, PhD, MPH
Department of Health Behavior and Health Education, University of Michigan, School of Public Health, Ann Arbor.

Mary E. Northridge, PhD, MPH
Mailman School of Public Health, Columbia University, New York.

Abstract

In this article, the authors draw on the disciplines of sociology and environmental and social epidemiology to further understanding of mechanisms through which social factors contribute to disparate environmental exposures and health inequalities. They propose a conceptual framework for environmental health promotion that considers dynamic social processes through which social and environmental inequalities—and associated health disparities—are produced, reproduced, and potentially transformed. Using empirical evidence from the published literature, as well as their own practical experiences in conducting community-based participatory research in Detroit and Harlem, the authors examine health promotion interventions at various levels (community-wide, regional, and national) that aim to improve population health by addressing various aspects of social processes and/or physical environments. Finally, they recommend moving beyond environmental remediation strategies toward environmental health promotion efforts that are sustainable and explicitly designed to reduce social, environmental, and health inequalities.
The Changing Organization of Work and the Safety and Health of Working People: A Commentary

Landsbergis, Paul A. PhD, MPH

Abstract

Recent trends in the organization of work may affect worker health through a variety of pathways-by increasing the risk of stress-related illnesses, such as cardiovascular disease, musculoskeletal disorders, and psychological disorders, by increasing exposure to hazardous substances and violence on the job, or by affecting occupational health services and training programs. Much remains to be learned about the nature of changes in work organization, and how they affect worker health and safety. While available evidence is limited, such evidence suggests that recent trends in work organization may be increasing the risk of occupational illnesses. In a groundbreaking publication, the National Institute for Occupational Safety and Health has provided a concise summary of available knowledge and a detailed agenda for research and development.