

Social and Environmental Determinants of Health: A Comprehensive Review

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Abstract— An individual's health is strongly affected by social and environmental factors. It is well known that physical activity and a good diet are crucial for reducing a number of harmful health consequences, such as obesity, some malignancies, type 2 diabetes, and cardiovascular illnesses. However, a significant portion of people in developed countries do not follow the guidelines for a balanced diet and physical activity. To effectively encourage physical exercise and a healthy diet, it is vital to comprehend the wide variety of factors that have an impact on these complex behaviours. Less research has been done on the impact of the social and physical surroundings on these behaviours, despite the fact that much of the work to date has concentrated on individual-level variables such attitudes and beliefs. The significance of these broader influences in influencing behaviour is posited by theoretical frameworks like social-ecological models. Poor social and environmental conditions increase the risk of disease, while supportive conditions promote healthier lifestyles and improve quality of life. Understanding these determinants is essential for developing effective public health policies and reducing health inequalities. This paper examines the major social and environmental determinants of health, their impact on individuals and communities, and the importance of creating healthy environments to achieve better health outcomes and sustainable development.

Keywords— Environmental factors, Eating habits, Health, Physical activity, Social factors

INTRODUCTION

Health is one of the most valuable assets of an individual and is essential for personal well-being, social development, and economic progress. Traditionally, health was viewed mainly as the absence of disease. However, according to the World Health Organization (WHO), health is defined as a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity. This broader understanding highlights that health is influenced by a wide range of factors beyond medical care. The conditions in which people are born, grow, live, work, and age are known as the social and environmental determinants of health. These determinants shape health outcomes throughout an individual's life. Social determinants include factors such as

education, income, employment, social support, access to healthcare, and cultural practices. Environmental determinants include clean air and water, sanitation, housing conditions, pollution levels, climate, and access to green spaces. Together, these factors influence people's opportunities to maintain good health and prevent disease.

Social inequalities often result in unequal access to essential resources, leading to significant differences in health status among individuals and communities. Similarly, environmental challenges such as pollution, poor sanitation, climate change, and inadequate housing contribute to the spread of diseases and negatively affect physical and mental health. Addressing these determinants is therefore essential for improving population health and reducing health disparities.

Understanding the relationship between social and environmental determinants and health is important for developing effective public health policies and interventions. Governments, healthcare professionals, educational institutions, and communities all have a shared responsibility to create conditions that support healthy living. By improving education, employment opportunities, environmental quality, and access to healthcare, societies can promote better health outcomes and enhance the overall quality of life. The complete range of socioeconomic, demographic, environmental, and cultural elements, as well as the health system, constitute the social and physical environments in which individuals live and work.

SOCIAL DETERMINANTS

Social determinants of health are the non-medical factors that influence health outcomes. These are the conditions under which people are born, grow, develop, work, live, and age, in addition to the larger collection of causes and systems affecting the conditions of daily existence. Political systems, societal norms, social policies, economic policies and systems, and development goals are some of these variables and systems.

SDH has a big impact on health inequalities, or the unfair and avoidable differences in health status seen within and between countries. Across all income levels and nations, health and illness follow a social gradient: the worse one's socioeconomic standing, the worse one's health. Examples of

the social determinants of health, which have both positive and negative effects on health equity, are given below:

Major Social Determinants of Health

1. Education

Education is one of the strongest determinants of health. It provides individuals with knowledge, skills, and awareness that help them make informed health-related decisions.

Impact on Health

- Improves health literacy and awareness about disease prevention.
- Encourages healthy lifestyle choices such as balanced nutrition, exercise, and avoiding tobacco and alcohol.
- Increases employment opportunities and income.
- Educated mothers are more likely to ensure proper nutrition, vaccination, and healthcare for their children.
- Reduces poverty and improves overall quality of life.

2. Income and Socioeconomic Status

Income determines a person's ability to meet basic needs and access essential services. People with higher incomes usually experience better health outcomes.

Impact on Health

- Enables access to nutritious food.
- Provides better housing and sanitation.
- Makes quality healthcare affordable.
- Reduces financial stress and anxiety.
- Supports healthier living conditions.

3. Employment and Working Conditions

Employment provides financial security, social identity, and psychological well-being. Safe and stable employment contributes to better health.

Positive Effects

- Regular income improves living standards.
- Health insurance and employment benefits improve access to healthcare.
- Enhances self-esteem and social status.
- Encourages social interaction.

Negative Effects of Poor Working Conditions

- Occupational injuries
- Exposure to harmful chemicals
- Excessive work stress
- Long working hours
- Job insecurity

4. Access to Healthcare Services

Availability, affordability, and quality of healthcare services significantly influence health outcomes.

Important Components

- Primary healthcare facilities
- Hospitals and specialized care
- Maternal and child healthcare
- Vaccination services
- Preventive health screening
- Mental health services

5. Social Support and Community Networks

Strong family relationships and supportive communities contribute significantly to physical and mental health.

Benefits

- Emotional support during illness.
- Reduced stress and anxiety.
- Better mental health.
- Faster recovery from diseases.
- Improved confidence and resilience.

6. Food Security and Nutrition

Access to sufficient, safe, and nutritious food is essential for maintaining good health.

Effects of Good Nutrition

- Strong immune system
- Healthy growth and development
- Better concentration and learning
- Lower risk of obesity and chronic diseases

7. Gender Equality and Social Inclusion

Gender and social inclusion influence access to education, employment, healthcare, and decision-making opportunities.

Impact

- Equal opportunities improve health outcomes.
- Reduces discrimination and violence.
- Improves maternal and child health.
- Enhances mental well-being.
- Promotes economic independence.

8. Social Inequality and Discrimination

Discrimination based on caste, race, ethnicity, disability, gender, or socioeconomic status affects access to healthcare and other resources.

Health Effects

- Increased stress
- Depression and anxiety
- Reduced healthcare access
- Poor physical health
- Lower life expectancy

Research suggests that social determinants of health may affect a person's health more than medical care or lifestyle choices. For instance, a lot of studies suggest that between 30 and 55% of health outcomes may be attributable to SDH. Estimates also show that the non-health industries contribute more to population health outcomes than the health sector does.

ENVIRONMENTAL FACTORS

From the quality of the air you breathe to the condition of the roads you travel on, environmental factors can have a significant impact on your health. Furthermore, these factors have undergone considerable changes over time as a result of both natural and human-caused events. Specialists in environmental health study how individuals interact with their surroundings, identifying the many ways in which these interactions may impact one's physical health, susceptibility to disease, and other facets of one's general well-being. Public health professionals can strategically improve environmental health to boost the wellness of people in their communities, families, and individuals.. For people to live longer and have better quality of life, their environment must be kept healthy. Communities can lessen exposure to diseases and chemicals that have damaging effects on the body by focusing on environmental health. Environmental health interventions can improve everyone's quality of life, but they may be especially noticeable for people whose health is already

compromised. Poor environmental quality, as stated by Healthy Persons, "has its greatest influence on people whose health condition is already at risk."

Environmental health advocacy is crucial in the field of public health since environmental challenges continue to have a detrimental impact on both individual and population health. Poor industrial hygiene is another example of how environmental factors may have an impact on wellness. According to Very well Health, many of the ingredients needed to advance businesses and technology, like heavy metals or even some polymers, can hurt people and perhaps cause serious medical conditions. In other words, businesses that don't follow ethical standards for manufacturing and disposing of trash run the risk of hurting the environment and affecting people's health.

Environmental health is not just a concern for one's own wellbeing; it also affects the wellbeing of the community. Simply put, our families and neighbours may be significantly impacted by the conditions in and around our homes, schools, parks, and workplaces. For instance, issues like pollution and litter can discourage people from going outside for exercise and pleasure, potentially increasing the risk of sickness for the entire community.

Infrastructure and other facets of the built environment can have an effect on public health. Inadequate sanitization infrastructure, for instance, can increase the incidence of disease in the local population. Poorly maintained roads can raise the likelihood of car accidents that result in injuries.

Environmental Factors that can Impact Health

1) Chemical Safety

Human health can be impacted by a variety of chemicals, and exposure to dangerous or foreign substances frequently makes people more prone to illness. The goal of the field of chemical safety is to lessen the effects of both synthetic and organic materials. Chemical safety focuses on both naturally occurring and synthetic chemicals that are used in industrial processes or are by-products of manufacturing activities. Chemical safety is more specifically concerned with protecting people's and the environment's health from exposure to potential poisons.

2) Air Pollution

Studies on air pollution have demonstrated that its impacts on people are a major public health issue, not only because of their contribution to climate change but also because exposure to it can raise morbidity and mortality rates. When environmental scientists refer to "air pollution," they mean any gases, solids, or liquids that are floating in the air and have toxic or hazardous consequences. We frequently associate human-caused contaminants with air pollution, and for good reason: The exhaust from cars and trucks, as well as the toxic by-

products of industrial activities, are some of the most hazardous and common types of air pollution. Numerous organic air contaminants, however, might have negative health effects.

3) Microbe-Related Diseases

Another area of public health concern is diseases caused by microbes, sometimes known as microorganism-based disorders. Countless microorganisms, in addition to those that live in water, soil, and the atmosphere, call the human body home. The majority of bacteria, according to the National Human Genome Research Institute, have no detrimental effects on health and perform a number of essential biological functions, such as fostering digestive and immunological wellness. Bacteria, fungus, and viruses are examples of microbes. People can become ill from pathogens or germs, which are harmful bacteria. Food is one of the main ways that people contract diseases caused by germs.

4) Natural disasters and Climate Change

The environmental problem of climate change and the surge in natural disasters that has accompanied it has significant negative effects on human health. According to the National Environmental Health Association, climate change poses the greatest hazard to human health in the twenty-first century. A few examples of how climate change alters the natural environment in ways that could be harmful to health and make humans more susceptible to disease are increases in the planet's temperature and more frequent, heavy rainstorms and runoff. People may become more prone to respiratory and neurological system diseases, diarrhoea, and other conditions as a result of the diverse impacts. Natural catastrophes occur more frequently as a result of climate change, which frequently destroys houses and communities and occasionally claims lives hurricanes, wildfires.

5) Access to healthcare is limited

Another environmental element that influences disease and unfavourable health outcomes is being in a place with inadequate access to health care services. Lack of access to health care is a result of a number of issues, including unstable economic conditions, unreliable transportation to medical facilities, and a general lack of understanding of the importance of preventative care. People without access to health care services, such as prescription medications and dental care, are more likely to develop chronic illnesses like asthma, cancer, diabetes, and heart disease.

6) Issues with Infrastructure

Community health can also be significantly impacted by infrastructure problems. Several examples are as follows:

- Poor road maintenance (increasing risk of car accidents)
- Lack of local health care infrastructure, such as clinics that can administer immunizations
- Lack of access to clean drinking water

The proper budget allocation from local, state, and federal governments is necessary to address bad infrastructure, as is a skilled labour to maintain it.

7) Water of Poor Quality

People lack access to clean drinking water, and alarmingly, approximately a third of the world's population does not have access to adequate sanitary facilities (e.g., clean bathrooms). The effects on health are alarming: Many people lose their lives every day from illnesses brought on by contaminated water. Poor water quality can be caused by a variety of things, such as industrial waste and pollution, a lack of access to effective water treatment and sanitation services, and ageing plumbing infrastructure.

8) Global environmental problems

According to estimates from the WHO, global environmental challenges are to blame for more than 12.6 million fatalities annually. These can also include biodiversity loss, UV radiation, and soil pollution in addition to the difficulties outlined below. The results show that more than 100 diseases and injuries have a direct connection to environmental health issues. These problems frequently affect disadvantaged populations the most since they already have serious health care vulnerabilities.

CONCLUSION

Health is determined not only by biological and medical factors but also by the social and environmental conditions in which people live. Social determinants such as education, income, employment, housing, social support, and access to healthcare significantly influence an individual's ability to achieve and maintain good health. Similarly, environmental determinants including clean air and water, sanitation, pollution control, climate, and safe living conditions have a direct impact on physical, mental, and social well-being. The interaction of these determinants' shapes health outcomes throughout the life course and contributes to health inequalities among different populations. Individuals and communities living in disadvantaged social and environmental conditions are more likely to experience poor health, limited access to healthcare, and a higher burden of disease. Therefore, improving health requires a comprehensive approach that goes beyond medical treatment and addresses the underlying social and environmental factors affecting people's lives. Public health professionals should come on the front lines of informing the public about the environmental and social factors that impact personal health, community well-being, and quality of life on a daily

basis. Through educational outreach and advocacy, they should inspire individuals and communities to take actions that help safeguard their local environments, protect their families' health.

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