

# SOCIAL AND ENVIRONMENTAL DETERMINANTS OF HEALTH AND THEIR IMPACT ON WELL –BEING: A NARRATIVE REVIEW

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## **Abstract:**

Social Determinants of Health (SDOH) are the social and environmental conditions that shape health and well-being across the lifespan.<sup>1</sup> These social determinants include education, social assistance, income, employment, social support, and access to health care.<sup>2</sup> Environmental determinants include housing, air quality, water quality, urbanization, pollution, and climate change.<sup>3</sup> Together, these two groups of determinants influence a person's overall physical and mental health.<sup>4</sup> The social and environmental determinants of health create benefits and disadvantages that can position populations at a greater or lesser degree of health disparity.<sup>5</sup> Understanding the impact of the SDOH is an important aspect of designing and developing effective public health strategies to improve the health of the population and achieve health equity.<sup>6</sup> This narrative review provides a description of the significant SDOH and evaluates the impact of these determinants on the overall health and well-being of the population.<sup>7</sup> The intent of this review is to provide an overview of the body of evidence related to the SDOH and to underscore the interrelatedness of the two sets of determinants in order to stress the need for comprehensive and multisectoral approaches to improve population health and reduce health disparities<sup>8</sup>.

**Objective:** This narrative review aims to examine the major social and environmental determinants of health and evaluate their impact on physical, mental, and social well-being.

## **Major Findings:**

Social and environmental factors, including education, income, housing conditions, pollution, and access to healthcare, significantly influence physical and mental well-being.<sup>9</sup> These factors work together to create health inequities, and an integrated public health approach can reduce disparities and improve population health outcomes.<sup>10</sup>

**Keywords:** Social determinants of health; Environmental determinants; Health equity; Public health; Well-being; Health promotion.

**Abbreviations:** SDOH – Social Determinants of Health, WHO – World Health Organization, SES – Socioeconomic Status, NCDs – Non-Communicable Diseases, UN – United Nations, SDGs – Sustainable Development Goals, HWB – Health and Well-Being, PH – Public Health

## **1. Introduction:**

Social and environmental factors help determine people's health, disease, and quality-of-life and are becoming more integrated into healthcare practices.<sup>11</sup> Outcomes of individual and community health depend on more than biological and genetic components. Social and economic conditions deeply impact community living and have many effects on healthy living.<sup>12</sup> These factors help determine health behaviours, exposure to risk, access to healthcare, and community well-being.<sup>13</sup>

Social determinants of health cover many factors such as social class, education, employment, income, social networks, culture, gender, and access to health care.<sup>14</sup> All of these play a role in the level of opportunity one has for healthy living and the health inequities among people.<sup>15</sup> People of a lower social class have more stress, have less access to healthy food, and quality healthcare, and have a greater risk of chronic diseases like heart disease, diabetes, obesity, or mental health.<sup>16</sup> Education has a huge effect on health as it determines how health is understood, the ability to make informed choices, and how and whether one participates in preventative health practices.<sup>17</sup>

Both the natural and human-altered environments have an impact on health. We know that poor air and water quality, chemicals, not having clean water and sanitation, climate change, and deforestation can all impact health through increased rates of illness and death.<sup>18</sup> Urbanization and industrialization can worsen the impact of assaults on health from poor air quality through respiratory illnesses and other ailments from increased heat and vector-borne infections.<sup>19</sup> Building the environment through the quality of housing, transportation, the workplace and green spaces can have an impact on humans through their physical activity, mental health, and social health.<sup>20</sup>

The interaction between social and environmental determinants creates complex pathways that influence disease development and health outcomes throughout an individual's life course<sup>21</sup>. Certain population groups, including women, children, older adults, and individuals with low socioeconomic status, are more vulnerable to adverse health outcomes than the general population.<sup>22</sup> This is because they do not have the things they need to stay healthy and they are more likely to live in disadvantaged social and environmental conditions. So people who work in health are trying to make things better by working with lots of different groups making rules to help the environment trying to make sure everyone has the same chance to be healthy and working with communities to make a difference<sup>23</sup>.

To make people healthy we need to know how social and environmental things affect our health. We have to think about the things that make people sick and hurt the environment.<sup>24</sup> If we fix these problems we can help people be healthier. This is what policymakers and healthcare professionals should do. They should make sure people have healthcare and a clean environment.<sup>25</sup> This will help people live longer and be healthier. We need to think about environmental things to make good public health policies and healthcare models.<sup>26</sup>

**Table 1. Major Social and Environmental Determinants of Health and Their Impact on Human Well-Being**

Category	Determinant	Impact on Health
<b>Social Determinants</b>	Socioeconomic Status	Low income is linked to poor nutrition, stress, limited healthcare access, and poorer health outcomes.
	Education	Improves health awareness, preventive behaviors, and healthcare decisions.
	Employment & Working Conditions	Job insecurity and unsafe workplaces negatively affect physical and mental health.
	Healthcare Access	Limited access delays diagnosis and treatment, increasing disease burden.
	Social Support Networks	Strong support enhances mental well-being and resilience.
	Gender & Social Equality	Inequality contributes to disparities in health and healthcare access.
	Cultural & Behavioral Factors	Influence lifestyle choices, healthcare use, and disease prevention.
<b>Environmental Determinants</b>	Air Quality	Poor air quality increases respiratory and cardiovascular diseases.
	Water & Sanitation	Unsafe water and poor sanitation raise the risk of infectious diseases.
	Housing Conditions	Poor housing contributes to infections, stress, and reduced well-being.
	Climate Change	Increases risks of heat-related illness, malnutrition, and vector-borne diseases.
	Waste Management	Poor waste disposal promotes environmental contamination and disease spread.
	Occupational Environment	Hazardous workplaces increase injuries and chronic diseases.
	Built Environment	Affects physical activity, mental health, and social interaction.

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## 2. Materials and Methods:

### 2.1 Study Design

This study was conducted as a narrative review to examine the major social and environmental determinants of health and their impact on physical, mental, and social well-being. The review aimed to synthesize and summarize existing evidence from published literature on factors influencing population health outcomes and health equity.

### 2.2 Literature Search Strategy

A comprehensive literature search was conducted using Pub-Med and Google Scholar databases. Relevant articles published between January 2010 and December 2025 were identified using combinations of the following keywords: “social determinants of health,” “environmental determinants of health,” “health equity,” “well-being,” “socioeconomic status,” “education,” “employment,” “healthcare access,” “air pollution,” “climate change,” “housing,” and “public health.” Boolean operators (AND, OR) were used to refine the search and improve retrieval of relevant studies.

### 2.3 Sources of Information:

This narrative review is based on a comprehensive search of published literature related to social and environmental determinants of health and their impact on well-being. Relevant information was collected from major scientific databases, including Pub-Med and Google Scholar. Peer-reviewed original research articles, systematic reviews, narrative reviews, and reports from reputable national and international organizations published between **January 2010 and December 2025** were included to ensure a broad, current, and reliable evidence base for the review.

## 2.4 Inclusion and exclusion criteria:

### Inclusion criteria:

Only Articles published in English were included in this narrative review. Eligible Studies must be original research Articles, review Articles, systematic reviews, meta-analyses, and reputable studies by international/national organizations. The studies should examine the social Determinants of health; that is, socioeconomic status, education level, income level, employment status, access to Healthcare services, social support, gender equity or equity and cultural influences; and environmental forms determinant factors; that is, air, water/sanitation, conditions of housing, effects of climate change, waste disposal, occupation exposures, and built environment. Studies examining how those determinants affect health, well-being, quality of life, morbidity and mortality were included. Only electronically available full-text articles were reviewed.

### Exclusion criteria:

Research pertaining to the health and well-being of individuals as a result of social and environmental factors was used to form the basis of the collected studies reviewed in this study. Conference abstracts, editorials, comments, letters to the editor, unpublished studies, duplicate studies and non-English articles were all excluded. In order to be included in this review, articles needed to contain sufficient methodological information along with adequate data relevant to the objectives of the study.

## 2.5 Study Selection Process:

Titles and abstracts of identified articles were screened for relevance. Full-text articles meeting the inclusion criteria were reviewed in detail. Studies that did not address the objectives of the review, duplicate publications, conference abstracts, editorials, and non-English articles were excluded.

## 2.6 Data Extraction:

In the study, data related to social determinants (e.g.: socioeconomic status, education, employment, access to health care, social support, gender equality and cultural factors) and environmental determinants (e.g.; air pollution, water and sanitation, substandard housing, effects of climate change, waste disposal, work environment/conditions, and built environment) was examined and organized based on each of the study's objectives. The key findings concerning health outcomes and level of disease or injury, quality of life, and overall well-being were extracted from each article then organized into themes. Afterward, the findings were combined and summarized narratively in order to provide a full description of the impact of social and environmental determinants on health and well-being.

## 3. Concept and Scope of Social and Environmental Health Determinants

The social and natural conditions that impact health as well as the physical environment from where you were born, raised, lived, worked, and aged are called social and natural determinants.<sup>31</sup> A few examples of social determinants would be: your income, level of education, type of job, social support, and ability to access healthcare in order to receive services needed for staying healthy.<sup>32</sup> The types of environmental determinants are: air quality, water quality, type of housing, sanitation, climate change, and the built environment where you live.<sup>33</sup>

Social and environmental determinants, taken together, have a great deal of influence on people's overall health outcomes, quality of life and well-being<sup>34</sup>. In order for effective public health policies to be developed to reduce health inequalities and improve population health, there needs to be an understanding of the scope of social and environmental determinants.<sup>35</sup>

### 3.1 Importance of Social Determinants in Public Health and well-being

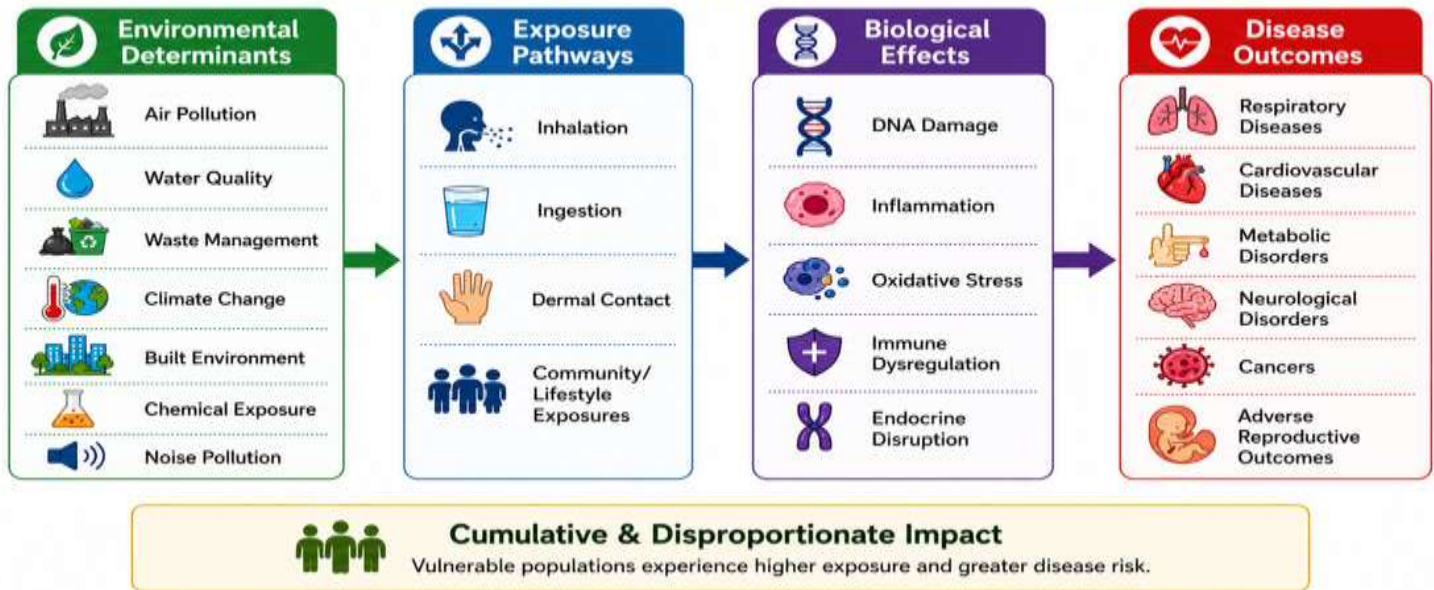
The Social Determinants of Health (SDOH) are defined as all social and economic factors (such as where someone lives, their income, level of education attained, ability to find gainful employment, access to safe and affordable housing, and access to health care) that influence one's overall health.<sup>36</sup> These determinants affect individuals daily and have a significant impact on health outcomes in addition to traditional medical care.<sup>37</sup>

Public health practitioners place a great deal of emphasis on addressing SDOH when developing preventive strategies because they demonstrate how and why some populations experience worse health than others.<sup>38</sup> Improving SDOH helps improve ability to prevent disease; enhance mental wellness; and improve overall population health.<sup>39</sup>

### 3.2 Role of Environmental Determinants in Disease Development

Environmental determinants have direct bearings on the genesis and progress of all communicable and non-communicable diseases.<sup>40</sup> Some examples are exposure to polluted air, lack of safe drinking water, household and occupational exposure to toxic chemicals, and inadequate sanitation, which predispose a person to respiratory illness, heart disease, enteric diseases, and cancer.<sup>41</sup> Through intense heat waves, increased flooding, and vector-borne diseases, climate change and environmental degradation have aggravated global health inequities.<sup>42</sup>

## Role of Environmental Determinants in Disease Development



**Figure 1** Conceptual pathway linking socioeconomic inequalities, social and environmental determinants, intermediate effects, and health outcomes.

This figure illustrates Environmental determinants such as air pollution, poor water quality, waste mismanagement, climate change, and chemical exposure influence health through multiple exposure pathways.<sup>43</sup> These exposures can induce biological effects, including inflammation, oxidative stress, immune dysregulation and endocrine disruption, ultimately contributing to the development of various diseases and adverse health outcomes.<sup>44</sup>

### 3.3 Interaction between Social and Environmental Determinants and Their Effects on Well-Being

Health is influenced by a combination of social and environmental determinants. Social determinants include factors such as income, education, employment, financial stability, and social support networks, which shape an individual's living conditions and access to essential resources, including healthcare, nutritious food, safe housing, and social services. These factors significantly influence health behaviours, exposure to risks, and overall health outcomes.<sup>45</sup> The environment can have a large impact on a person's physical and mental health; the environment is made up of things like air quality, housing safety, water sanitation, and the infrastructure where a person lives.<sup>46</sup>

The way that these factors interrelate influences whether a person is living in a health-promoting condition or health-limiting conditions; for example, people in low income families are at increased risk to live in areas that are polluted or overcrowded, which increases their exposure to both environmental risks and stress.<sup>47</sup> Alternatively, social supports that promote supportive social systems and equitable strategies to improve their living environments will result in reducing harmful exposures.<sup>48</sup> Together, the combination of social and environmental factors influences disease risk, quality of life, and overall well-being for populations.<sup>49</sup>

### 3.4 Urbanization and Industrialization: Impact on Social and Environmental Determinants

Roughly half of the world's population, or approximately 3.5 billion people, now live in cities and urban areas as of 2023.<sup>50</sup> Urbanization has occurred at a rapid pace over the last 60 years, and is projected to continue for the foreseeable future with the bulk of this expansion occurring in developing countries, where urbanization puts immense pressure on social structures, living conditions, and public health conditions.<sup>51</sup> Urbanization creates a number of ecological, social, and health challenges that can significantly impact the overall health of urban populations, despite its role in driving economic growth, technological innovation, and improvements in infrastructure.<sup>52</sup>

Increasing sub-urban scale and density associated with increased urbanization has often led to overcrowded living conditions, substandard housing, high levels of unemployment, and limited access to healthcare and schooling within many urban areas, particularly in low-income communities.<sup>53</sup> Socially, urbanization increases socioeconomic disparities and creates significant amounts of psychological stress associated with competition for jobs, financial instability, and social isolation.<sup>54</sup> Movement from rural to urban areas may also alter or eliminate traditional community-based social supports, and can affect one's mental and emotional well-being.<sup>55</sup> In many developing nations, unplanned growth of urban areas has resulted in the creation of slums that are characterized by poor sanitation, lack of clean drinking water, and limited access to primary health care.<sup>56</sup>

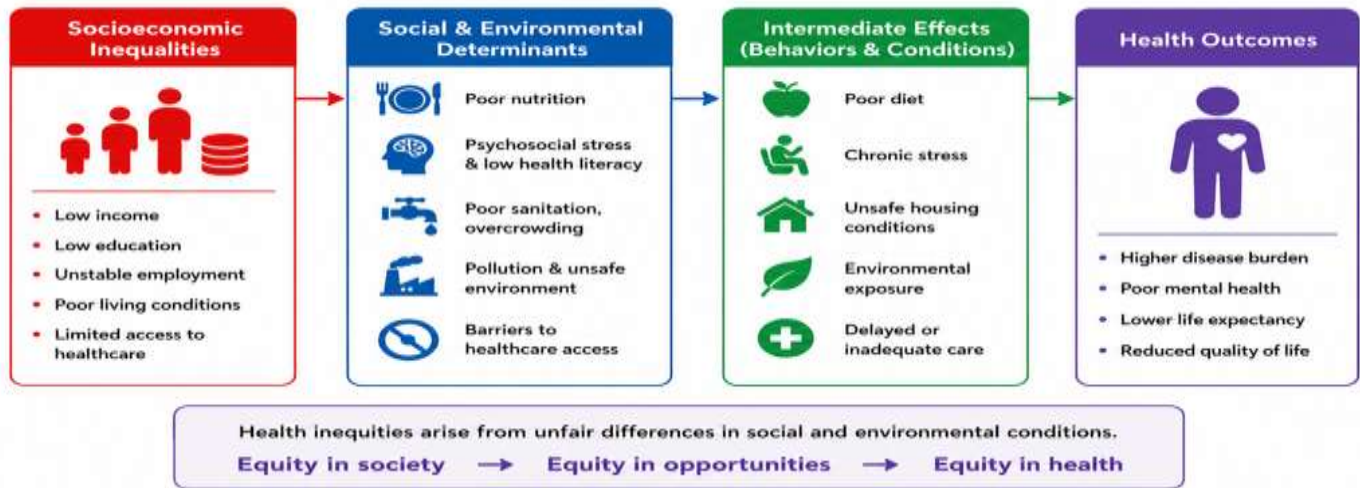
Industrialization also negatively affects environmental health through the increased pollution and ecological degradation caused by industrial activities.<sup>57</sup> Industrialization contributes to air, water, and land pollution as a result of the emissions from industrial sources, the emissions from motor vehicles, and the improper management of waste; these pollutants have been linked to an increased risk of developing respiratory illnesses, cardiovascular diseases, cancers, and other chronic health conditions.<sup>58</sup> Workers' health and safety are also negatively impacted by industrial practices through occupational exposure to hazardous substances and unsafe work environments.<sup>59</sup>

Finally, the over-exploitation of natural resources and degradation of Earth's ecosystems associated with the rapid development of urban areas and industries, contribute significantly to climate change.<sup>60</sup>

### 3.5 Socioeconomic Inequalities and Health Outcomes

People with lower income, limited education, and unstable employment often have reduced access to quality healthcare, nutritious food, and safe living environments. As a result, they are at a higher risk of developing chronic diseases, experiencing mental health problems, and having a shorter life expectancy.<sup>61</sup> Because of this inequity between socioeconomic groups, eliminating the disparities related to socioeconomics is critical to ensuring individuals and populations achieve health equity and improved health status as a whole.<sup>62</sup>

#### Pathway from Socioeconomic Inequalities to Health Outcomes



**Figure2.** Conceptual framework illustrating the role of environmental determinants, exposure pathways, biological effects, and disease outcomes.

Figure 2 demonstrates how socioeconomic inequalities influence social and environmental determinants, leading to differences in health outcomes. Poor socioeconomic conditions are associated with adverse health effects, whereas improved social and environmental conditions promote better health and quality of life.

### 3.6 Role of Education and Employment in Health Promotion and Well-being

Health promotion and general well-being are influenced significantly by two of the social determinants of health, employment and education.<sup>63</sup> The ability to read, write, and understand health information helps to form the foundation of a person's ability to make informed choices about their lifestyle and to use the health system.<sup>64</sup> The higher someone's level of education, the better their capacity to be aware of how to prevent disease, make nutritious choices, and develop healthy behaviours ultimately improving long-term health outcomes.<sup>65</sup>

Employment positively impacts health by providing an income, social identity, and access to services that contribute to good health such as health care services and nutritious foods.<sup>66</sup> People who work in safe, stable environments experience less stress and risk of accidents (which contribute to injury), whereas individuals who are unemployed or worried about losing their jobs have been shown to have poorer mental health, increased symptoms of anxiety, and a greater likelihood of developing chronic illnesses.<sup>67</sup> Education and employment empower individuals; contribute to reducing health disparities; and ultimately help create healthier communities.<sup>68</sup>

### 3.7 Impact of Pollution and Climate Change on Health and overall well-being

Pollution and climate change are both a large part of our everyday lives that can have a massive effect on the health and well-being of people.<sup>69</sup> Polluted air, water, and soil are significant contributors to respiratory illnesses, cardiovascular diseases, allergic conditions and infections, and help contribute to an increased chance of developing a more severe disease such as cancer later in life.<sup>70</sup> The most vulnerable groups continue to face disproportionate damage from exposure to infected or unsuitably designed environments; thus creating greater health inequality than other groups.<sup>71</sup>

The effects of climate change make these consequences worse through rising temperatures; extreme temperatures and severe weather; heat waves; floods; and an increase in representations of vectors that contain disease.<sup>72</sup> Climate change continues to disrupt access to food and fresh drinking water, leading to increased risk of malnutrition as well as increasing incidence of psychological trauma.<sup>73</sup> Thus, climate change and pollution are not just contributing factors for disease burden but also reduce quality of life, making it essential to have sustainable solutions for environmental health and public health.<sup>74</sup>

### 3.8 Mental Health and Social Environment

Mental health and emotional well-being are impacted by social environments.<sup>75</sup> Several social determinants, including familial support, education, employment status, income stability, community relationships and social inclusion provide insight into how psychological health is influenced.<sup>76</sup> Positive social environments support individual emotional stability, resilience and a healthy ability to cope, while negative social environments create stress, anxiety, depression and other forms of mental illness.<sup>77</sup>

Unemployment, poverty, social isolation, discrimination, and financial insecurity are linked to poor mental health, as socially disadvantaged individuals often face chronic stress and limited access to mental health services.<sup>78</sup> This leads to worse mental health

outcomes. In addition, insufficient or no social support and unhealthy interpersonal relationships can negatively affect an individual's self-esteem and emotional stability.<sup>79</sup> Urbanization and new lifestyles have increased the incidence of mental health problems caused by the breakdown of social connections, work-related stress and decreased community interaction.<sup>80</sup> Thus, building supportive social environments, raising awareness about mental health, improving access to psychological services and developing strong community support systems are key strategies for improving both individual and overall public health.<sup>81</sup>

### 3.9 Global Perspective on Social and Environmental Health Determinants

The social and environmental elements that impact health are significant areas of concern for global public health and also the factors that affect how people experience disease, the way healthcare is accessed, and the quality of life that exists in nations and populations.<sup>82</sup> Social and environmental health determinants vary between developed and developing countries due to differences in economic stability, healthcare, education, environmental policies, and social welfare systems.<sup>83</sup> Because of these differences, very large health disparities exist in the world between the most vulnerable and low-income populations.<sup>84</sup>

The majority of the reasons that people in developing countries have high levels of infectious disease and substandard health are caused by poverty, poor nutrition, inadequate sanitation, a lack of access to healthcare, overcrowding, and pollution.<sup>85</sup> Comparatively, people in more developed nations are facing different health challenges which arise from urbanization, industrial pollution, lack of physical activity, mental health issues, and chronic diseases such as diabetes and heart disease.<sup>86</sup>

Global issues that are negatively impacting people's health include the effects of global climate change, air pollution and lack of access to clean drinking water, and loss of biodiversity.<sup>87</sup> The need for global cohesion, sustainable development, public health policy, and equitable healthcare is emphasized by organizations such as the World Health Organization.<sup>88</sup>

The effects of globalization, migration, and rapid urbanization have led to all of the nations of the world becoming more interconnected regarding public health issues.<sup>89</sup> There are many reasons public health issues can impact people who do not have adequate healthcare resources and who are living in poor conditions, such as natural disasters, global pandemics, or economic crises.<sup>90</sup>

**Table2. Global Perspective on Social and Environmental Determinants of Health and Associated Health Outcomes**

Region/Setting	Major Social Determinants	Major Environmental Determinants	Common Health Outcomes
<b>Developing Countries</b>	Poverty, low education, unemployment, limited healthcare access	Poor sanitation, unsafe drinking water, air pollution, overcrowding	Infectious diseases, malnutrition, maternal and child health problems
<b>Developed Countries</b>	Sedentary lifestyle, mental stress, aging population, social isolation	Industrial pollution, urbanization, climate-related risks	Cardiovascular diseases, obesity, diabetes, mental health disorders
<b>Urban Areas</b>	High population density, social inequality, work-related stress	Traffic pollution, waste accumulation, limited green spaces	Respiratory diseases, anxiety, hypertension
<b>Rural Areas</b>	Limited education and healthcare facilities, poverty	Poor infrastructure, unsafe water supply, agricultural chemical exposure	Nutritional deficiencies, infectious diseases, occupational illnesses
<b>Low-Income Populations</b>	Financial instability, unemployment, poor housing	Exposure to polluted environments and inadequate sanitation	Higher disease burden, reduced life expectancy
<b>Vulnerable Populations</b>	Social discrimination, limited healthcare accessibility	Increased exposure to environmental hazards and climate change	Mental health disorders, chronic diseases, increased mortality
<b>Global Environmental Challenges</b>	Population growth, migration, unequal resource distribution	Climate change, deforestation, biodiversity loss, pollution	Heat-related illnesses, vector-borne diseases, food insecurity

<sup>91, 92</sup>

### 3.10 Policy Interventions and Community-Based Approaches

Health inequalities and social & environmental determinants of health can be addressed through policy interventions and community-based strategies.<sup>91</sup> Public health programs that include poverty relief, education, job creation, environmental stewardship, and equitable access to healthcare services will improve the health of populations significantly.<sup>91</sup> To achieve this, both the government and the healthcare system must adopt evidence-based methods of increasing social welfare through clean environments, safe housing, and access to good healthcare for all people.<sup>93</sup>

Environmental policies that aim to reduce health risks arising from environmental factors must also focus on controlling pollution, establishing proper waste disposal, ensuring a reliable supply of clean water, and promoting sustainable urban development.<sup>94</sup> Social policies that support education, nutrition, occupational safety, and social security can be effective in reducing the disparities associated with socioeconomic status as well as improving the overall quality of life.<sup>95</sup> In addition, community-based strategies are also critical to creating awareness of public health issues and supporting individuals to take an active role in their health and well-being by participating in various health promotion efforts.<sup>96</sup> General public health campaigns, health education programs, sanitation initiatives, and community-based support groups are all ways of enhancing prevention strategies and raising health literacy.<sup>97</sup>

Community engagement is critical to improving the effectiveness of public health interventions by providing a means of identifying local health issues and accommodating cultural differences associated with those issues.<sup>98</sup> Developing sustainable, equitable approaches to health requires collaboration between government entities, healthcare professionals, environmental agencies, educational institutions, and local residents. Therefore, a unified approach is necessary.<sup>99</sup>

#### 4. Results:

The literature reviewed indicates that social and environmental determinants have a substantial influence on health outcomes and overall well-being. The findings suggest that health is shaped not only by biological factors but also by the social and environmental conditions in which people live, work, and interact.

Several social determinants, including socioeconomic status, education, employment, healthcare access, social support, and gender equality, were consistently associated with health outcomes. Individuals with higher levels of education, stable employment, and adequate income generally demonstrated better physical and mental health, greater health awareness, and improved access to healthcare services. In contrast, populations experiencing poverty, unemployment, low educational attainment, and limited access to healthcare were more likely to experience poor health outcomes and a higher burden of disease.

Environmental determinants were also found to play an important role in influencing health and well-being. Factors such as air pollution, poor water quality, inadequate sanitation, substandard housing, occupational hazards, and climate change were frequently associated with adverse health effects. Exposure to these environmental risks was linked to increased rates of respiratory diseases, cardiovascular disorders, infectious diseases, and mental health problems.

The reviewed evidence further demonstrated a close relationship between social and environmental determinants. Individuals from disadvantaged socioeconomic backgrounds were more likely to live in areas with poor housing conditions, environmental pollution, overcrowding, and limited access to essential services. These combined exposures contributed to widening health inequalities and negatively affected quality of life.

Urbanization and industrialization emerged as important factors influencing both social and environmental health determinants. Although these processes have contributed to economic growth and infrastructure development, they have also been associated with increased environmental pollution, occupational risks, overcrowding, and social disparities. These challenges have important implications for population health, particularly in low-income and vulnerable communities.

Climate change was identified as an increasingly significant public health concern. The literature highlighted its association with heat-related illnesses, food insecurity, water shortages, vector-borne diseases, and psychological stress. Vulnerable populations, including children, older adults, and economically disadvantaged groups, were reported to be disproportionately affected by climate-related health risks.

Overall, the reviewed literature indicates that social and environmental determinants are closely interconnected and collectively influence health outcomes and well-being. Factors such as socioeconomic status, education, employment, social support, environmental quality, and climate-related conditions play a significant role in shaping physical, mental, and social well-being. Furthermore, populations exposed to adverse social and environmental conditions experience a greater burden of disease, reduced quality of life, and persistent health inequities.

#### 5. Discussion

This narrative review illustrates the relationships between the determinants of health and well-being in individuals as well as the broader society; the social and environmental factors work together to impact health and well-being of people across the world. Social determinants of health include; access to quality healthcare; how much education an individual has; available stable employment; level of social support; and socioeconomic status; each factor contributes greatly to how healthy an individual is, and therefore contributes toward how healthy a population is. As indicated in this study, individuals with higher socioeconomic status tend to experience better health throughout their lives, while those with lower socioeconomic status typically face higher rates of disease or less health overall.

In addition, the results of this review illustrate that many of the environmental factors impacting the health of people (air quality, unsafe drinking water, inadequate access to sanitary facilities, substandard housing, job related exposures, and climate change) consistently show an adverse effect on both physical and mental health of individuals. The underlying driver of both environmental degradation and increased risk of adverse health effects to all populations is the rapid urbanization and industrialization of the world.

As this narrative review indicated, the social and environmental determinants of health are interrelated; typically, socially disadvantaged populations will have a higher level of exposure to environmental hazards, thus compounding the differences in health status and health outcomes between populations. Climate change is an important and growing global public health concern that has the potential to disproportionately affect vulnerable populations through events such as extreme weather conditions, food insecurity, and increased incidence of infectious diseases.

**Table3. Summary of Social and Environmental Determinants Influencing Health and Well-being**

Determinant Group	Primary Influence on Health
Socioeconomic Factors	Affect access to healthcare, nutrition, and living conditions
Education and Employment	Improve health literacy, income, and well-being
Social Environment	Influences mental health, social support, and resilience
Physical Environment	Determines exposure to pollution, unsafe housing, and environmental hazards
Climate and Urban Factors	Increase risks of chronic diseases, infectious diseases, and health inequities

Table 3 presents a summary of the major social and environmental determinants of health and their influence on health outcomes and overall well-being.

Overall, the reviewed literature indicates that social and environmental determinants are closely interconnected and collectively influence health outcomes and well-being. Factors such as socioeconomic status, education, employment, social support, environmental quality, and climate-related conditions play a significant role in shaping physical, mental, and social well-being. Populations exposed to adverse social and environmental conditions experience a greater burden of disease, reduced quality of life, and persistent health inequities.

## 6. Conclusion

Social and environmental factors are the primary contributors to health outcomes and general well-being. There are many factors that can determine disease risk, quality of life and health equity for individuals, such as: socioeconomic status, education level, employment status, access to healthcare services, social support, physical and environmental quality, and local climate. This evidence also shows us that there is a strong relationship between all social and environmental factors that can either encourage a person's health or create ongoing health inequities for populations. Addressing these key determinants through comprehensive public health policies, environmental protections, equitable access to healthcare services and community-based interventions will help to promote good health and improve population health by reducing health inequities. Therefore, a joint effort will be required to help achieve long-term health and well-being for all.

## 7. Author contribution in this Review article

A.P.K. conceptualized the review, conducted the literature search, analyzed and synthesized the evidence, drafted the manuscript, and approved the final version. A. S. contributed to the study design, critical revision of the manuscript, interpretation of the literature, and approval of the final manuscript

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## 9. Data Availability Statement:

No new data were created or analyzed in this study. Data sharing is not applicable as this is a narrative review based on published literature.

## 10 Conflicts of Interest:

The authors declare that there are no conflicts of interest regarding the publication of this manuscript. The authors alone are responsible for the content and writing of the paper.

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## 12. References:

1. Krishnakumar S, Shyanti RK, Malik S, Mishra MK. Social determinants of health (SDoH) and their impact on human well-being. In: *Public Health Issues: Theory and Practices*. Singapore: Springer Nature Singapore; 2025. p. 79-90. doi:10.1007/978-981-96-6650-8\_6.
2. Taylor E, Morton A, Dell A, Smith R. Employment and support. In: *COVID-19 and Social Determinants of Health*. Bristol: Policy Press; 2023. p. 230-240. doi:10.1332/policypress/9781447364948.003.0016.
3. Saxena V. Water quality, air pollution, and climate change: investigating the environmental impacts of industrialization and urbanization. *Water Air Soil Pollut*. 2025;236(2). doi:10.1007/s11270-024-07702-4.
4. Sher C, Wu C. Physical activity and mental health: comparing between-person and within-person associations in longitudinal analysis. *Ment Health Phys Act*. 2023;25:100546. doi:10.1016/j.mhpa.2023.100546.

5. Tausig M, Fenwick R. The social stratification of job stress: how social structures create health disparity. In: *Special Social Groups, Social Factors and Disparities in Health and Health Care*. Bingley: Emerald Group Publishing Limited; 2016. p. 261-286. doi:10.1108/S0275-49592016000034014.
6. Alderwick H, Gottlieb LM. Meanings and misunderstandings: a social determinants of health lexicon for health care systems. *Milbank Q*. 2019;97(2):407-419. doi:10.1111/1468-0009.12390.
7. Braveman P, Gottlieb L. The social determinants of health: it's time to consider the causes of the causes. *Public Health Rep*. 2014;129(Suppl 2):19-31. doi:10.1177/00333549141291S206.
8. Baum FE, Bégg S, Houweling TAJ, Taylor S. Changes not for the fainthearted: reorienting health care systems toward health equity through action on the social determinants of health. *Am J Public Health*. 2009;99(11):1967-1974. doi:10.2105/AJPH.2008.154856.
9. Rujibhong S. Impact of physical environmental factors on mental well-being of condominium dwellers. *Pertanika J Soc Sci Humanit*. 2023;31(4):1587-1619. doi:10.47836/pjssh.31.4.13.
10. Allen J, Balfour R, Bell R, Marmot M. Social determinants of mental health. *Int Rev Psychiatry*. 2014;26(4):392-407. doi:10.3109/09540261.2014.928270.
11. Fahar Ali S, Lamoria J, Narayan Mishra S, Kumar A, Kaur A, Shinde R. Integrating environmental health into healthcare management practices. *Health Leadersh Qual Life*. 2024;3. doi:10.56294/hl2024.368.
12. Ahnquist J, Fredlund P, Wamala SP. Is cumulative exposure to economic hardships more hazardous to women's health than men's? A 16-year follow-up study of the Swedish Survey of Living Conditions. *J Epidemiol Community Health*. 2007;61(4):331-336. doi:10.1136/jech.2006.049395.
13. Ortiz J, Lee B, Concha J, Barnas J, Yates J, Umucu E. Exploring mental help-seeking behaviors, health, and well-being in rural veterans with chronic health conditions: a national rural health study. *Healthcare (Basel)*. 2025;13(23):3108. doi:10.3390/healthcare13233108.
14. O'Dea JA. Gender, ethnicity, culture and social class influences on childhood obesity among Australian schoolchildren: implications for treatment, prevention and community education. *Health Soc Care Community*. 2008;16(3):282-290. doi:10.1111/j.1365-2524.2008.00768.x.
15. Arcaya MC, Arcaya AL, Subramanian SV. Inequalities in health: definitions, concepts, and theories. *Glob Health Action*. 2015;8:27106. doi:10.3402/gha.v8.27106.
16. Despite greater poverty, less education, and less access to care, Hispanics tend to have similar or better health than whites. *PsycEXTRA Dataset*. Washington (DC): American Psychological Association; 2003. doi:10.1037/e556532006-020.
17. Evans M. Smart health choices: how to make informed health decisions. *Evid Based Med*. 2001;6(2):40. doi:10.1136/ebm.6.2.40.
18. Barbara J. The impact of climate change on human health. In: *Impact of Climate Change on Water and Health*. Boca Raton (FL): CRC Press; 2012. p. 75-105. doi:10.1201/b14323-7.
19. Baylis M. Potential impact of climate change on emerging vector-borne and other infections in the UK. *Environ Health*. 2017;16(Suppl 1). doi:10.1186/s12940-017-0326-1.
20. Stamenković M. Physical activity, mental health and quality of life of women who have experienced COVID-19. *Phys Educ Sport Through Cent*. 2023;10(2):126-139. doi:10.5937/spes2301126s.
21. Braveman P, Egerter S, Williams DR. The social determinants of health: coming of age. *Annu Rev Public Health*. 2011;32:381-398. doi:10.1146/annurev-publhealth-031210-101218.
22. Organisation for Economic Co-operation and Development (OECD). Figure 2.12. People who have been told by a doctor that they have depression, anxiety or other mental health problems are more likely to report receipt of conflicting information from health care professionals. Paris: OECD; n.d. doi:10.1787/888934014802.
23. Irwin A, Scali E. Action on the social determinants of health: a historical perspective. *Glob Public Health*. 2007;2(3):235-256. doi:10.1080/17441690601106304.
24. Allen J, Balfour R, Bell R, Marmot M. Social determinants of mental health. *Int Rev Psychiatry*. 2014;26(4):392-407. doi:10.3109/09540261.2014.928270.
25. Roberts C. What should we do? Using ethics to make better decisions. In: *Ethical Leadership for a Better Education System*. Abingdon (UK): Routledge; 2019. p. 91-92. doi:10.4324/9781315146003-11.
26. Feng Q, Tang D. Could people live longer and healthier? *Lancet Public Health*. 2025;10(5):e360. doi:10.1016/S2468-2667(25)00072-6.
27. Marmot M, Friel S, Bell R, Houweling TAJ, Taylor S; Commission on Social Determinants of Health. Closing the gap in a generation: health equity through action on the social determinants of health. *Lancet*. 2008;372(9650):1661-1669. doi:10.1016/S0140-6736(08)61690-6.
28. Jayasinghe S. Social determinants of health inequalities: towards a theoretical perspective using systems science. *Int J Equity Health*. 2015;14:71. doi:10.1186/s12939-015-0205-8.
29. Bambra C, Gibson M, Sowden A, Wright K, Whitehead M, Petticrew M. Tackling the wider social determinants of health and health inequalities: evidence from systematic reviews. *J Epidemiol Community Health*. 2010;64(4):284-291. doi:10.1136/jech.2008.082743.
30. Salgado M, Madureira J, Mendes AS, Torres A, Teixeira JP, Oliveira MD. Environmental determinants of population health in urban settings: a systematic review. *BMC Public Health*. 2020;20:853. doi:10.1186/s12889-020-08905-0.
31. Marmot M, Allen J. Social determinants of health equity. *Am J Public Health*. 2014;104(Suppl 4):S517-S519. doi:10.2105/AJPH.2014.302200.
32. World Health Organization. *Social determinants of health* [Internet]. Geneva: World Health Organization; [cited 2026 Jun 3]. Available from: <https://www.who.int/health-topics/social-determinants-of-health>.

33. Thompson S. You are where you live: health, wealth and the built environment. *The Conversation*. 2014 Mar 11. doi:10.64628/aa.ugucvw4v4.
34. McCartney G, Collins C, Mackenzie M. What (or who) causes health inequalities: theories, evidence and implications? *Health Policy*. 2013;113(3):221-227. doi:10.1016/j.healthpol.2013.05.021.
35. Marmot M, Allen JJ. Health equity in England: the Marmot review 10 years on. *BMJ*. 2020;368:m693. doi:10.1136/bmj.m693.
36. Daniel H, Bornstein SS, Kane GC; Health and Public Policy Committee of the American College of Physicians. Addressing social determinants to improve patient care and promote health equity: an American College of Physicians position paper. *Ann Intern Med*. 2018;168(8):577-578. doi:10.7326/M17-2441.
37. Akhiwu OA, Brown B, Pulapaka A, Mustafa A, Sharp M. Black individuals with sarcoidosis have significant delays in referral. *Am J Respir Crit Care Med*. 2023;207:A1102. doi:10.1164/ajrccm-conference.2023.207.1\_meetingabstracts.a1102.
38. Hodge E, Oversby S, Chor J. Why are some outbreaks worse than others? COVID-19 outbreak management strategies from a PHU perspective. *BMC Public Health*. 2023;23(1):641. doi:10.1186/s12889-023-15498-x.
39. To improve dual eligibles' health, create targeted SDOH funds and increase integration [Internet]. *Forefront*. 2022 Sep 27 [cited 2026 Jun 3]. Available from: <https://doi.org/10.1377/forefront.20220926.434680>.
40. World Health Organization. *Environmental health* [Internet]. Geneva: World Health Organization; [cited 2026 Jun 3]. Available from: <https://www.who.int/health-topics/environmental-health>.
41. Krishnan K, Carrier R. Exposure source and multiroute exposure considerations for risk assessment of drinking water contaminants. In: *Risk Assessment for Chemicals in Drinking Water*. Hoboken (NJ): Wiley; 2007. p. 67-89. doi:10.1002/9780470173381.ch4.
42. Thomson MC. Emerging infectious diseases, vector-borne diseases, and climate change. In: *Global Environmental Change*. Dordrecht: Springer Netherlands; 2014. p. 623-628. doi:10.1007/978-94-007-5784-4\_103.
43. Sarkhosh M, Atafar Z. Atmospheric pollutants: exposure assessment and material damage. In: *Air Pollution, Air Quality, and Climate Change*. Amsterdam: Elsevier; 2025. p. 83-102. doi:10.1016/B978-0-443-23816-1.00006-9.
44. Dietert RR. Effects of endocrine disruptors on immune function and inflammation. In: *Endocrine Disruption and Human Health*. Amsterdam: Elsevier; 2015. p. 257-272. doi:10.1016/B978-0-12-801139-3.00014-4.
45. Adler NE, Newman K. Socioeconomic disparities in health: pathways and policies. *Health Aff*. 2002;21(2):60-76. doi:10.1377/hlthaff.21.2.60.
46. An Introduction to Person-Environment Psychology and Mental Health: Assessment and Intervention. In: *Person-Environment Psychology and Mental Health*. London: Routledge; 2000. p. 11-16. doi:10.4324/9781410605580-5.
47. Averett N. Exercising in polluted areas: study suggests benefits outweigh the health risks of NO<sub>2</sub> exposure. *Environ Health Perspect*. 2015;123(6):A158. doi:10.1289/EHP.123-A158.
48. A43. Strategies for identifying harmful agents, reducing exposures, and preventing disease. In: *Proceedings of the American Thoracic Society Conference*; 2009. New York (NY): American Thoracic Society; 2009. doi:10.1164/AJRCCM-CONFERENCE.2009.A043.
49. Compton MT, Shim RS. The social determinants of mental health. *Focus (Am Psychiatr Publ)*. 2015;13(4):419-425. doi:10.1176/appi.focus.20150017.
50. Salgado M, Madureira J, Mendes AS, Torres A, Teixeira JP, Oliveira MD. Environmental determinants of population health in urban settings: a systematic review. *BMC Public Health*. 2020;20:853. doi:10.1186/s12889-020-08905-0.
51. Land development under rapid industrialization and urbanization: Jiangsu. In: *Developing China*. London: Routledge; 2009. p. 251-280. doi:10.4324/9780203878934-20.
52. Rydin Y, Bleahu A, Davies M, Dávila JD, Friel S, De Grandis G, et al. Shaping cities for health: complexity and the planning of urban environments in the 21st century. *Lancet*. 2012;379(9831):2079-2108. doi:10.1016/S0140-6736(12)60435-8.
53. Vergara LM. *When quarantine is a privilege*. Stichting OpenAccess Foundation; 2020 Nov 11. doi:10.47982/1mh.17.
54. Ventriglio A, Torales J, Castaldelli-Maia JM, De Berardis D, Bhugra D. Urbanization and emerging mental health issues. *CNS Spectr*. 2021;26(1):43-50. doi:10.1017/S1092852920001236.
55. Mendez J, Stephens C, Jacome A, Crosby DA. *Informal and formal supports may affect Hispanic early educators' physical and mental well-being* [report]. Bethesda (MD): Child Trends, Inc.; 2024 Aug 12. doi:10.59377/100s2482j.
56. Kamau N, Njiru H. Water, sanitation and hygiene situation in Kenya's urban slums. *J Health Care Poor Underserved*. 2018;29(1):321-336. doi:10.1353/hpu.2018.0022.
57. Edwards RW. Ecological assessment of the degradation and recovery of rivers from pollution. In: *Ecological Assessment of Environmental Degradation, Pollution and Recovery*. Amsterdam: Elsevier; 1989. p. 159-194. doi:10.1016/B978-0-444-87361-3.50012-2.
58. World Health Organization. *Ambient (outdoor) air pollution* [Internet]. Geneva: WHO; 2024 Oct 24 [cited 2026 Jun 5]. Available from: <https://www.who.int/en/news-room/fact-sheets/detail/ambient-%28outdoor%29-air-quality-and-health>.
59. Lee N, Lee BK, Jeong S, Yi GY, Shin J. Work environments and exposure to hazardous substances in Korean tire manufacturing. *Saf Health Work*. 2012;3(2):130-139. doi:10.5491/SHAW.2012.3.2.130.
60. Ren Z, Fu Y, Dong Y, Zhang P, He X. Rapid urbanization and climate change significantly contribute to worsening urban human thermal comfort: a national 183-city, 26-year study in China. *Urban Clim*. 2022;43:101154. doi:10.1016/j.uclim.2022.101154.

61. Avendano M, Kawachi I. Why do Americans have shorter life expectancy and worse health than do people in other high-income countries? *Annu Rev Public Health*. 2014;35(1):307-325. doi:10.1146/annurev-publhealth-032013-182411.
62. Atal S, Cheng C. Socioeconomic health disparities revisited: coping flexibility enhances health-related quality of life for individuals low in socioeconomic status. *Health Qual Life Outcomes*. 2016;14(1). doi:10.1186/s12955-016-0410-1.
63. Coles S. Social enterprise and the well-being of young people not in education, employment or training. In: *Social Determinants of Health*. Bristol (UK): Policy Press; 2017. p. 181-194. doi:10.51952/9781447336860.ch013.
64. Chesire F, Kaseje M, Ochieng M, Ngatia B, Mugisha M, Ssenyonga R, et al. Effects of the Informed Health Choices Secondary School Intervention on the Ability of Students in Kenya to Think Critically About Health Information for Informed Choices: a cluster-randomised trial. 2023. doi:10.2139/ssrn.4436231.
65. The Local Education Authority. In: *Improving School Governance*. London: Routledge; 2003. p. 153-165. doi:10.4324/9780203486429-18.
66. Access to health care and community social capital. *Health Serv Res*. 2002;37(1):85-101. doi:10.1111/1475-6773.00111.
67. Establishing the need for mental health services for children and young people in care, and those who are subsequently adopted. In: *Mental Health Services for Vulnerable Children and Young People*. London: Routledge; 2013. p. 17-34. doi:10.4324/9780203095478-8.
68. Viner RM, Ozer EM, Denny S, Marmot M, Resnick M, Fatusi A, et al. Adolescence and the social determinants of health. *Lancet*. 2012;379(9826):1641-1652. doi:10.1016/S0140-6736(12)60149-4.
69. Demaio S. Our climate is our health—but can we have both? *The Conversation*. 2013 Jul 31. doi:10.64628/aa.kxu6uarjif.
70. Ciprandi G, Cirillo I, Troisi RM, Marseglia GL. Allergic subjects have more numerous respiratory infections and severe gastrointestinal infections than non-allergic subjects: preliminary results. *Eur J Inflamm*. 2007;5(1):27-30. doi:10.1177/1721727X0700500105.
71. Introducing vulnerable groups. In: *Vulnerable Groups in Health and Social Care*. London: SAGE Publications Ltd; 2009. p. 1-10. doi:10.4135/9781446279472.n1.
72. Turkey: rising temperatures and the impact of heat waves on health, cities, water and forests. *Climate Change and Law Collection*. Walter de Gruyter GmbH. doi:10.1163/9789004322714\_cclc\_2021-0224-778.
73. Energy East: a risk to our drinking water. *Climate Change and Law Collection*. Walter de Gruyter GmbH. doi:10.1163/9789004322714\_cclc\_2016-0051-001.
74. The health burden of pollution: pathways, risks and solutions. In: *One Health in a Changing World: Climate, Disease, Policy, and Innovation*. Unique Scientific Publishers; 2025. doi:10.47278/book.hh/2025.80.
75. Social and emotional well-being and mental health. In: *Supporting Children's Health and Well-being*. London: SAGE Publications Ltd; 2017. p. 75-86. doi:10.4135/9781529715040.n6.
76. Bagley CR. The educational and social inclusion of disadvantaged children in Britain. In: *Challenges for Inclusion*. Leiden: Brill; 2008. p. 103-148. doi:10.1163/9789087903039\_007.
77. Association between depression, anxiety, stress, social support, resilience and internet addiction: a structural equation modelling. *Malays Online J Educ Technol*. 2019;7(3):1-10. doi:10.17220/mojet.2019.03.001.
78. Enabling social inclusion for people with mental health conditions: the role of mental health services. In: *Social Inclusion and Mental Health*. Cambridge: Cambridge University Press; 2022. p. 347-358. doi:10.1017/9781911623601.020.
79. Developing self-esteem and emotional competency. In: *Promoting Mental, Emotional and Social Health*. London: Routledge; 2013. p. 66-89. doi:10.4324/9780203048610-9.
80. Gruebner O, Rapp MA, Adli M, Kluge U, Galea S, Heinz A. Cities and mental health. *Dtsch Arztebl Int*. 2017;114(8):121-127. doi:10.3238/arztebl.2017.0121.
81. Cardoso G. Improving access to integrated mental health services in community-based settings in Portugal. *Eur J Public Health*. 2019;29(Suppl 4). doi:10.1093/eurpub/ckz185.294.
82. Ottersen OP, Dasgupta J, Blouin C, Buss P, Chongsuvivatwong V, Frenk J, et al. The political origins of health inequity: prospects for change. *Lancet*. 2014;383(9917):630-667. doi:10.1016/S0140-6736(13)62407-1.
83. Pimonenko T, Lyulyov O, Chygryn O, Palienko M. Environmental Performance Index: relation between social and economic welfare of the countries. *Environ Econ*. 2018;9(3):1-11. doi:10.21511/ee.09(3).2018.01.
84. Marmot M. Social determinants of health inequalities. *Lancet*. 2005;365(9464):1099-1104. doi:10.1016/S0140-6736(05)74234-3.
85. Anyaduba T, Irechukwu O, Anyaduba U. Infectious disease diagnostic technologies for people living in extreme poverty: an unmet need. 2023. doi:10.20944/preprints202306.1389.v1.
86. Rebar A, Taylor A. Identifying and understanding the determinants and physical activity behaviour change processes for people with mental health issues. *Ment Health Phys Act*. 2016;11:75. doi:10.1016/j.mhpa.2016.11.003.
87. Destroying lives and evidence in plain sight. In: *Air Pollution, Clean Energy and Climate Change*. Wiley; 2022. p. 1-46. doi:10.1002/9781119771616.ch1.
88. Kosycarz E. Governing global health by international organizations amid the global challenges of today, and its impact on sustainable development. In: *Global Public Goods and Sustainable Development in the Practice of International Organizations*. Leiden: Brill; 2023. p. 274-300. doi:10.1163/9789004687264\_015.
89. Huynen MMTE, Martens P, Hilderink HBM. The health impacts of globalisation: a conceptual framework. *Global Health*. 2005;1:14. doi:10.1186/1744-8603-1-14.
90. Bisson JL. Mental healthcare required by people who are affected by major incidents and pandemics: lessons from research. In: *Major Incidents, Pandemics and Mental Health*. Cambridge: Cambridge University Press; 2024. p. 213-222. doi:10.1017/9781009019330.031.

91. Marmot M, Wilkinson RG, editors. *Social Determinants of Health*. 2nd ed. Oxford: Oxford University Press; 2006.
92. Prüss-Ustün A, Wolf J, Corvalán C, Neville T, Bos R, Neira M. Diseases due to unhealthy environments: an updated estimate of the global burden of disease attributable to environmental determinants of health. *J Public Health (Oxf)*. 2017;39(3):464-475. doi:10.1093/pubmed/fdw085.
93. Daniel H, Bornstein SS, Kane GC; Health and Public Policy Committee of the American College of Physicians. Addressing social determinants to improve patient care and promote health equity: an American College of Physicians position paper. *Ann Intern Med*. 2018;168(8):577-578. doi:10.7326/M17-2441.
94. Landrigan PJ, Fuller R, Acosta NJR, Adeyi O, Arnold R, Basu N, et al. The Lancet Commission on pollution and health. *Lancet*. 2018;391(10119):462-512. doi:10.1016/S0140-6736(17)32345-0.
95. Lund C, Brooke-Sumner C, Baingana F, Baron EC, Breuer E, Chandra P, et al. Social determinants of mental disorders and the Sustainable Development Goals: a systematic review of reviews. *Lancet Psychiatry*. 2018;5(4):357-369. doi:10.1016/S2215-0366(18)30060-9.
96. Saheb R, Mortimer T, Rutherford E, Sperandei S, Reis A. Creating healthy universities: the role of campus-based health promotion events in supporting student well-being. *Health Promot J Austr*. 2019;32(1):13-20. doi:10.1002/hpja.305.
97. Halsall T, Mahmoud K, Pouliot A, Iyer SN. Building engagement to support adoption of community-based substance use prevention initiatives. *BMC Public Health*. 2022;22(1). doi:10.1186/s12889-022-14496-9.
98. Doyle K, Hungerford C. Adapting evidence-based interventions to accommodate cultural differences: where does this leave effectiveness? *Issues Ment Health Nurs*. 2014;35(10):739-744. doi:10.3109/01612840.2014.901452.
99. Peñaloza B. Does collaboration between local health and local government agencies improve health outcomes? 2016. doi:10.30846/161112.

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