

## Systematic Review of Social Determinants of Health

<sup>1</sup>Loise Munyambu

<sup>1</sup>Student, Public Health

Corresponding Email: lmunyambu@gmail.com

**How to cite this article:** Munyambu, L. (2024). Systematic review of social determinants of health. *Journal of Medicine, Nursing and Public Health*, 4(2), 30-37.

---

### Abstract

The paper was a systematic review of social determinants of health. There are five social determinants of health. They include economic stability, education access, and quality, health care access and quality, neighborhood and built environment, and social and community context. It is obvious that relative poverty and social capital will, in one way or another, give rise to the resilience needed for an individual to feel good about themselves and age successfully. A healthy community's support and lifestyle decisions will lessen susceptibility to unhealthy behaviours. As the person moves into the working community, upstream support from family, schools, and community networks is crucial for fostering psychological well-being and self-esteem. Physicians and other medical practitioners can better support patients faced with social challenges by asking about their social history, providing them with advice, referring them to local support services, facilitating access to these services, and acting as reliable resource persons throughout the process. Training physicians, nurses, and other allied health workers to address the social determinants of health is considered one of the key principles for promoting more equitable health outcomes for patients, families, and communities. Physicians can conduct locally relevant research and use social determinants data to better intervene in their context and generate evidence as a lever for advocacy. They can create their organizations to defend humanitarian causes ranging from refugee care to climate change, and they can ensure that the health system is "part of the solution," for instance, by purchasing surgical instruments that are not produced using child labour or by challenging patent laws that restrict access to life-saving medicines for the world's population.

**Keywords:** *Systematic review, economic stability, education access and quality, health care access and quality, neighborhood and built environment, social and community context*

---

### INTRODUCTION

The modern-day origins of public health have emerged from a sophisticated understanding of the impact of social and environmental conditions on health. Health status is determined fundamentally by the conditions in which we are born, grow, live, and age. These conditions include physical environment, access to education, adequate housing, employment, and income which are also referred to as the social determinants of health. These social determinants are considered alongside individual characteristics (genetics) and behaviors as the main proximal determinants of variations in personal health (Nutbeam & Lloyd, 2021).

According to Smith et al. (2023), Social determinants of health (SDOH) are non-medical factors that influence health outcomes. They are the conditions in which people are born, live, learn, work, play, worship, and age, and the wider set of forces and systems shaping the

conditions of daily life. Social determinants of health incorporate societal systems, their components, and the social resources and hazards for health that societal systems control and distribute, allocate, and withhold, such that the demographic distribution or trend of health outcomes is changed. Societal systems include governments, institutions, and other organizations, regulations, and processes. The resources and hazards for health that these systems control, allocate, withhold, and distribute include food/lack of food, shelter/unsheltered, sanitation/insanitation, civic participation, education, employment, law and justice, law enforcement, defense, transportation, health information/dis-information, and health care. It is this overall system and array of resources and hazards that allows and constrains the preventive and risk behavior of groups and individuals that then affects their health (Hahn, 2021).

SDH suggests that an individual's health is not only impacted by whether one can access quality health care but is also shaped by the ability to access healthy foods, as well as the safety and sanitary conditions of one's environment. A patient's cultural norms, health literacy, and competing needs such as the availability of transportation or child care govern individual actions and can influence others' actions. Physicians, nurses, pharmacists, and others associated with health care delivery and research should have an understanding of the causal pathways that predict health in terms of proximate factors (immediate health risks such as environmental hazards like air pollution for children with asthma) and protective factors (those that mitigate or reduce risks, such as social supports and access to regular health care for children with asthma) to facilitate multiple approaches to health interventions (Irwin, Solar, & Vega, 2018).

In Healthy People 2030, the US Department of Health and Human Services broadly groups social determinants of health into five domains: education access and quality, health care access and quality, neighborhood, and built environment, and social and community context and economic stability (Rosendale, 2022). Figure 1 shows the social determinants of health.



Figure 1: Social Determinant of Health

### **Education Access and Quality as a Social determinants of health**

People with higher levels of education are more likely to live healthier and longer lives, but educational opportunities are not equally accessible. Education also encompasses health literacy, or the ability to read, understand, and act on health information. Low levels of health literacy have been associated with lower levels of access to care (Levy & Janke, 2016). Healthy People 2030 focuses on providing high-quality educational opportunities for children and adolescents and on helping them do well in school. Children from low-income families, children with disabilities, and children who routinely experience forms of social discrimination like bullying are more likely to struggle with math and reading. They're also less likely to graduate from high school or go to college. This means they're less likely to get safe, high-paying jobs and more likely to have health problems like heart disease, diabetes, and depression (Tzenios, 2019).

### **Health Care Access and Quality as a social determinant of health**

Inadequate health insurance coverage is one of the largest barriers to health care access, and the unequal distribution of coverage contributes to disparities in health. Out-of-pocket medical care costs may lead individuals to delay or forgo needed care (such as doctor visits, dental care, and medications), and medical debt is common among both insured and uninsured individuals. People with lower incomes are often uninsured and minority groups account for over half of the uninsured population (Herman, Rissi, & Walsh, 2021)

Lack of health insurance coverage may negatively affect health. Uninsured adults are less likely to receive preventive services for chronic conditions such as diabetes, cancer, and cardiovascular disease. Similarly, children without health insurance coverage are less likely to receive appropriate treatment for conditions like asthma or critical preventive services such as dental care, immunizations, and well-child visits that track developmental milestones (Lee et al., 2018).

### **Neighborhood and Built Environment as a social determinant of health**

The environments where people live have a critical role in their health and well-being. Polluted air, contaminated water, and extreme heat are three environmental conditions that can negatively impact population health. Poor water quality places the public's health at risk. Groundwater is the source of drinking water for nearly 1 out of 3 Americans, and in one study, 22% of public supply groundwater sources had at least one contaminant above recommended levels. Humans take millions of breaths throughout their lives, so the cumulative impact of outdoor and indoor air quality can influence health. Air temperature is another environmental condition that affects health. According to recent reports from the National Oceanic and Atmospheric Administration (NOAA), many of the hottest years on record have occurred in the past decade. Reducing harmful environmental exposures can improve population health and may contribute to decreases in health disparities (Nabaweesi et al., 2023).

### **Social and Community Context as a social determinant of health**

Social support is linked to physical and mental well-being, increased ability to cope with stress, improved self-care, and overall health-related quality of life in individuals. Older adults with high levels of social support are more likely to consult with a health professional for weight gain, adhere to medication, and exercise regularly compared with those with medium or low levels of social support; these pathways improve overall cardiovascular health and survival. In addition, people's interactions with family, friends, and coworkers can significantly affect their health, particularly in the context of race and racism (Singh et al., 2021).

## **Economic Stability as a social determinant of health**

Economic Stability can be described as the ability to access resources that are essential to one's life and well-being. The federal poverty level is the standard proxy measure to indicate whether individuals or families are poor or unable to meet their basic economic needs (Dixon, & Sanchez, 2024). The domain of economic stability encompasses several influential factors on health, including income, employment, and food stability (Office of Disease Prevention and Health Promotion, 2022).

Economic stability is a major domain of Social Determinants of Health (SDOH) affecting nearly every aspect of a person's health. Poor families and individuals are most likely to live in unsafe homes and neighborhoods, often with limited access to healthy foods, employment options, and quality schools (Geller et al., 2023).

## **LITERATURE REVIEW**

### **Theoretical Review**

This paper was informed by human capital theory. Grossman's human capital model was proposed by Grossman (2000). Grossman's Human Capital theory largely places the role of the provider as a healer once individuals fall ill. Grossman defines "health" as a durable capital stock that provides benefit through direct utility (that is we feel better when we are healthier) and through healthy time that can be invested in the market (the production of goods and services via employment or starting a business) and non-market (leisure time) activities.

Individuals are born with an initial stock of health that, like other capital goods, has a depreciation rate that accelerates over time and is affected by age, disease, accidents, or healthy behaviors. Individuals make investments in their health to increase their health stock, thereby increasing their utility. Therefore, the demand for good health is derived from the demand for individual utility, and the demand for healthcare services is derived from the demand for good health.

Positive investments in health include individual choices regarding healthcare consumption, diet, and exercise. The model asserts that individuals can choose how healthy to be and by extension, how long their life will be through those investments. Investments in health are subject to production and resource constraints in the form of time and wages. An investment in human capital through higher education can increase the efficiency of investments in health (Grossman, 2017).

According to the model, health is a function of biological and behavioral factors at the individual level. Individuals have a high degree of control over their health and can increase the efficiency of their health investments by investing in themselves through education. The economic model places the responsibility of health production squarely on the shoulders of individuals to make wise decisions regarding time, investments, and healthcare consumption. From a healthcare perspective, Grossman's model implies a reactive role for providers to produce health. When needed, health-seeking individuals will approach providers for services because of their individual preference for good health and because an increase in healthcare consumption leads to maintenance and/or improvement in overall health. Unhealthy individuals or those who forgo primary care do so because they don't gain utility in consuming those services. Providers have little accountability to intervene in any other area in the health production function since that responsibility falls on the individual.

## Empirical Review

Mwoka et al. (2021) focused on housing as a social determinant of health: Evidence from Singapore, the UK, and Kenya. A comparative policy analysis across three country contexts (Singapore, the UK, and Kenya) to document the extent to which housing policies address health and well-being, highlighting commonalities and differences among them. The anatomy of housing policies has a strong correlation to the provision of adequate housing across Singapore, the UK, and Kenya, especially for vulnerable groups. The study demonstrates that contextual factors including population composition (that is aging versus youthful), political ideologies, legal frameworks (that is welfare versus market-based provision of housing), and presence (or absence) of adequate, quality, timely, reliable, robust data systems for decision-making, which are taken up by stakeholders/state, have strong implications of the type of housing policies developed and implemented, in turn directly and indirectly impacting the overall health and well-being of populations. This analysis demonstrated the value of viewing housing policies as public health policies that could significantly impact the health and well-being of populations, especially vulnerable groups. Moreover, the findings highlight the importance of the Health in All Policies approach to facilitate integrated policy responses to address social determinants of health such as housing. This is more critical than ever, given the context of the global pandemic that has led to worsening overall health and well-being.

Hahn (2021) focused on social determinants of health. The objective of this essay was to clarify the understanding and use of Social Determinants of Health (SDOH) by exploring the basic characteristics of ‘determinants’ and ‘fundamental causes,’ the ‘social,’ ‘structure,’ and ‘modifiability,’ and to consider theoretical and practical implications of this reconceptualization for public health. The analysis distinguished social determinants of health from other determinants of health. The study found that the integration of social determinants of health into public health theory and practice substantially expands the benefits of public health, but will require new theorizing, intervention research, education, collaboration, policy, and practice.

Chen, Tan, and Padman (2020) focused on social determinants of health in electronic health records and their impact on analysis and risk prediction: a systematic review. In accordance with the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines, we conducted a literature search in the PubMed, CINAHL, Cochrane, EMBASE, and PsycINFO databases for English language studies published until March 2020 that examined SDoH domains in the context of EHRs. The study identified 71 unique studies that are directly related to the research questions. 75% of the included studies were published since 2017, and 68% were U.S.-based. 79% of the reviewed articles integrated SDoH information from external data sources into EHRs, and the rest of them extracted SDoH information from unstructured clinical notes in the EHRs.

Mkuu et al. (2019) focused on social determinants of hypertension and type-2 diabetes in Kenya. The study adopted a descriptive cross-sectional research design. Approximately reported hypertension and reported T2D. Latent class analysis suggested a 4-class solution. The class with the highest likelihood of reporting a previous diagnosis of hypertension consisted of a high proportion of married adult women. The second highest prevalence of previous diagnosis of hypertension consisted of a high proportion of married middle-aged men with a high probability of being smokers. The results suggest that Kenyan women over 30 years may be at increased risk of hypertension compared to men.

Nutbeam and Lloyd (2021) focused on understanding and responding to health literacy as a social determinant of health. Existing interventions demonstrate the feasibility of improving health literacy among higher-risk populations, but research remains underdeveloped and effects on health inequity are largely untested. Future health literacy intervention research should focus on improving the quality of health communication that reaches a diversity of populations, especially by improving frontline professional skills and support; enabling people to develop transferable skills in accessing, understanding, analyzing, and applying health information; and ensuring that priority is proportionate to need by reaching and engaging the population groups who are disproportionately affected by low health literacy.

Brown and Elliott (2021) focused on social determinants of Health. From this social determinant of health (SDOH) are non-medical factors, such as socioeconomic status, education, neighborhood/physical environment, social network, employment, and access to health care, which can shape individuals' health and affect a wide range of health risks and outcomes. These social determinants of health and their associated health disparities and inequities are powerful predictors of mortality and morbidity. Chronic kidney disease disproportionately affects populations with relatively poor social determinants of health. Knowledge of social determinants, applying what one knows, and addressing the social, economic, and physical barriers to health can help improve individual and population health, reduce health disparities, and advance health equity.

## **CONCLUSION**

There are five social determinants of health. They include economic stability, education access, and quality, health care access and quality, neighborhood and built environment, and social and community context. It is obvious that relative poverty and social capital will, in one way or another, give rise to the resilience needed for an individual to feel good about themselves and age successfully. A healthy community's support and lifestyle decisions will lessen susceptibility to unhealthy behaviours. As the person moves into the working community, upstream support from family, schools, and community networks is crucial for fostering psychological well-being and self-esteem.

Achieving the many SDGs will promote health and well-being and ensure that no one is left behind. These goals are significant determinants of health. Improvements to child development, fair employment and decent labour, social protection, and the living environment are likely to have the most effects on health and health disparity, according to reviews of health inequities and the social determinants of health. To assist Member States of the WHO European Region in endorsing the suggested implementation roadmap for the 2030 Agenda for Sustainable Development, a comprehensive array of policy choices are delineated encompassing these four issues.

Physicians who know how to ask about social challenges are more likely to report helping their patients work through these issues. Indeed, all patients may struggle with social challenges and require support in various spheres at different stages in their lives, and challenges such as discrimination, social isolation, or exposure to violence can occur regardless of socioeconomic status.

## **RECOMMENDATIONS**

Physicians and other medical practitioners can better support patients faced with social challenges by asking about their social history, providing them with advice, referring them to local support services, facilitating access to these services, and acting as reliable resource person throughout the process.

Training physicians, nurses, and other allied health workers to address the social determinants of health is considered one of the key principles for promoting more equitable health outcomes for patients, families, and communities.

Beyond referral, physicians and allied health workers can advocate for individual patients (for example by writing letters on the patient's behalf to housing agencies, educational institutions, or the courts). They can also help their patients access benefits or programs to which patients are entitled (for example tax credits, child and family benefits, home visitation programs, low-cost daycare, parenting classes, school readiness programs, or nutrition support programs)

Physicians can conduct locally relevant research and use social determinants data to better intervene in their context and generate evidence as a lever for advocacy. They can create their organizations to defend humanitarian causes ranging from refugee care to climate change, and they can ensure that the health system is "part of the solution," for instance, by purchasing surgical instruments that are not produced using child labour or by challenging patent laws that restrict access to life-saving medicines for the world's population

## REFERENCES

- Brown, J. S., & Elliott, R. W. (2021). Social Determinants of Health: Understanding the Basics and Their Impact on Chronic Kidney Disease. *Nephrology Nursing Journal*, 48(2).
- Chen, M., Tan, X., & Padman, R. (2020). Social determinants of health in electronic health records and their impact on analysis and risk prediction: a systematic review. *Journal of the American Medical Informatics Association*, 27(11), 1764-1773.
- Dixon, D. D., & Sanchez, E. J. (2024). Beyond the Methods: Economic Stability and Cardiovascular Health. *Circulation: Cardiovascular Quality and Outcomes*, e010823.
- French, D. D., Wang, A., Prager, A. J., & Margo, C. E. (2019). Association of the Robert Wood Johnson Foundations' social determinants of health and medicare ocular hospitalizations: a cross-sectional data analysis. *Ophthalmology and therapy*, 8, 611-622.
- Geller, A. B., Polsky, D. E., Burke, S. P., & National Academies of Sciences, Engineering, and Medicine. (2023). Economic Stability. *Federal Policy to Advance Racial, Ethnic, and Tribal Health Equity*.
- Grossman, M. (2000). The human capital model. In *Handbook of Health Economics* (Vol. 1, pp. 347-408). Elsevier.
- Grossman, M. (2017). The human capital model. In *Determinants of Health: An Economic Perspective* (pp. 42-110). Columbia University Press.
- Hahn, R. A. (2021). What is a social determinant of health? Back to basics. *Journal of Public Health Research*, 10(4), phr-2021.
- Herman, P. M., Rissi, J. J., & Walsh, M. E. (2011). Health insurance status, medical debt, and their impact on access to care in Arizona. *American journal of public health*, 101(8), 1437-1443.
- Irwin, A., Solar, O., & Vega, J. (2018). Social determinants of health, the United Nations Commission of.
- Levy, H., & Janke, A. (2016). Health literacy and access to care. *Journal of Health Communication*, 21(sup1), 43-50.

- Mkuu, R. S., Gilreath, T. D., Wekullo, C., Reyes, G. A., & Harvey, I. S. (2019). Social determinants of hypertension and type-2 diabetes in Kenya: A latent class analysis of a nationally representative sample. *PloS one*, *14*(8), e0221257.
- Mwoka, M., Biermann, O., Ettman, C. K., Abdalla, S. M., Ambuko, J., Pearson, M., ... & Mberu, B. (2021). Housing as a social determinant of health: Evidence from Singapore, the UK, and Kenya: The 3-D Commission. *Journal of Urban Health*, *98*, 15-30.
- Nabaweesi, R., Hanna, M., Muthuka, J. K., Samuels, A. D., Brown, V., Schwartz, D., & Ekadi, G. (2023). The built environment as a social determinant of health. *Primary Care: Clinics in Office Practice*, *50*(4), 591-599.
- Nutbeam, D., & Lloyd, J. E. (2021). Understanding and responding to health literacy as a social determinant of health. *Annu Rev Public Health*, *42*(1), 159-73.
- Office of Disease Prevention and Health Promotion. (2022). Social determinants of health. Healthy People 2030. US Department of Health and Human Services.
- Singh, R., Javed, Z., Yahya, T., Valero-Elizondo, J., Acquah, I., Hyder, A. A., ... & Nasir, K. (2021). Community and social context: an important social determinant of cardiovascular disease. *Methodist DeBakey Cardiovascular Journal*, *17*(4), 15.
- Smith, P. B., Hatter, R., King, J., Van Horn, A., & McCollum, S. (2023). Social Determinants of Health (SDOH) as Barriers to Quality Medical and Economic Outcomes. A case study. *Women's Health Research*, *4*(2), Women-s.
- Tzenios, N. (2019). The determinants of Access to Healthcare: a review of Individual, Structural, and systemic factors. *Journal of Humanities and Applied Science Research*, *2*(1), 1-14.