

THE IMPACT OF SOCIAL DETERMINANTS OF HEALTH ON HEALTHCARE ACCESS AND OUTCOMES

Adel Saleh Saad Almogry^{1*}, Bandar Salman Ghaenm Alrashdi², Aljuhani, Mohammed Saad M³, Mubarak Mashnef Aldhafeeri⁴, Taleb Mashnef Aldhafeeri⁵, Fawaz Muhayya Khalifah Alrashdi⁶, Tariq Abdu Ahmed Aamri⁷, Fahad Lafi Aldhafeeri⁸, Hamed Muhawish Aldhafeeri⁹, Fahad Murhi Ghathith Aldhafeeri¹⁰

Abstract:

Social determinants of health encompass a wide range of factors, including socioeconomic status, education, employment, housing, and access to healthcare services. These determinants play a pivotal role in shaping individuals' health status and their ability to access and utilize healthcare services effectively. Healthcare access and outcomes are intricately linked to social determinants of health, which are the conditions in which people are born, grow, live, work, and age. Research has consistently shown that individuals from disadvantaged socioeconomic backgrounds face barriers to accessing quality healthcare services, leading to disparities in health outcomes. Factors such as income level, education, employment status, and housing stability significantly impact an individual's ability to seek timely and appropriate healthcare. Moreover, systemic issues such as racial and ethnic disparities, lack of health insurance, and geographic barriers further exacerbate these inequalities. The article synthesizes current research findings and discusses the complex interplay between social determinants of health and healthcare access and outcomes. By understanding and addressing these social determinants, healthcare systems can work towards reducing health disparities and improving overall population health.

Keywords: social determinants of health, healthcare access, healthcare outcomes, socioeconomic status, health disparities, population health

^{1*}Specialist-Health Administration, Shaqra General Hospital, Saudi Arabia
²Specialist-Health Administration, Al-Nimarah Wal-Mis'ar Healthcare Center, Hail, Saudi Arabia
³Social Worker, Long Care Hospital, Arar, Saudi Arabia
⁴Specialist-Sociology, Eradah Complex for Mental Health, Hafar Al-Batin, Saudi Arabia
⁵Specialist-Sociology, Eradah Complex for Mental Health, Hafar Al-Batin, Saudi Arabia
⁶Specialist-Sociology, Eradah Complex for Mental Health, Hafar Al-Batin, Saudi Arabia
⁶Specialist-Sociology, Eradah Complex for Mental Health, Hail, Saudi Arabia.
⁷Public Health Technician, North Medical Tower, Arar, Saudi Arabia
⁸Public Health Technician, Maternity and Children's Hospital, Hafar Al Batin, Saudi Arabia
⁹Public Health Technician, Maternity and Children's Hospital, Hafar Al Batin, Saudi Arabia
¹⁰Health Assistant, Emergency and Disaster Management and Medical Transportation, Hafar Al-Batin, Saudi Arabia

*Corresponding Author: Adel Saleh Saad Almogry

*Specialist-Health Administration, Shaqra General Hospital, Saudi Arabia

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Introduction:

Healthcare access and outcomes are influenced by a multitude of factors, one of the most significant being social determinants of health. Social determinants of health are the conditions in which people are born, grow, live, work, and age that shape their health. These factors include socioeconomic status, education, employment, social support networks, and access to healthcare services. Understanding the impact of social determinants of health on healthcare access and outcomes is crucial in addressing health disparities and improving overall population health [1].

Socioeconomic status is one of the most important social determinants of health. Individuals with higher socioeconomic status tend to have better access to healthcare services, higher quality of care, and better health outcomes compared to those with lower socioeconomic status. This is due to a variety of factors, including the ability to afford health insurance, access to healthy food and safe housing, and the availability of transportation to healthcare facilities [2].

Individuals with lower socioeconomic status are more likely to experience barriers to healthcare access, such as lack of health insurance, inability to pay for medical care, and limited access to healthcare providers. As a result, they are more likely to delay seeking medical care, leading to poorer health outcomes and higher rates of chronic diseases [3].

Education is another important social determinant of health that influences healthcare access and outcomes. Individuals with higher levels of education tend to have better health literacy, enabling them to make informed decisions about their health and seek appropriate medical care when needed. Additionally, higher levels of education are associated with higher income levels, which can improve access to healthcare services [4].

On the other hand, individuals with lower levels of education may have limited health literacy, making it difficult for them to navigate the healthcare system and understand medical information. This can lead to delays in seeking medical care, poor adherence to treatment plans, and ultimately, worse health outcomes [5].

Employment status is also a significant social determinant of health that impacts healthcare access and outcomes. Individuals who are employed are more likely to have access to employer-sponsored health insurance, which can help cover the costs of medical care. Additionally, being employed provides individuals with a sense of financial stability, enabling them to afford healthcare services and medications [6].

Conversely, individuals who are unemployed or underemployed may struggle to afford health insurance and medical care, leading to delays in seeking treatment and poorer health outcomes. Unemployment can also have negative effects on mental health, further exacerbating health disparities [7].

Social support networks, including family, friends, and community organizations, play a crucial role in shaping health outcomes. Individuals with strong social support networks are more likely to have access to emotional and practical support, which can help them cope with health challenges and adhere to treatment plans. Additionally, social support networks can provide individuals with access to information about healthcare services and resources [8].

On the other hand, individuals who lack social support may experience feelings of isolation and loneliness, which can negatively impact their mental and physical health. Without a strong support system, individuals may struggle to manage chronic conditions, leading to poorer health outcomes. Access to healthcare services is a key determinant of health outcomes. Individuals who live in areas with limited access to healthcare facilities. such as rural or underserved communities, may face challenges in accessing medical care. This can result in delays in seeking treatment, unmet healthcare needs, and poorer health outcomes [9].

Additionally, individuals who lack health insurance or have high out-of-pocket costs may be deterred from seeking medical care, leading to untreated medical conditions and preventable hospitalizations. Improving access to healthcare services, particularly in underserved communities, is essential in addressing health disparities and improving overall population health [10].

Social determinants of health have a significant impact on healthcare access and outcomes. Addressing these factors is crucial in reducing health disparities and improving population health. By addressing socioeconomic status, education, employment, social support networks, and access to healthcare services, healthcare providers and policymakers can work towards achieving health equity and improving the overall well-being of individuals and communities. It is essential to recognize the interconnected nature of social determinants of health and their influence on healthcare access and outcomes in order to create a more equitable and inclusive healthcare system [11].

Understanding Social Determinants of Health:

Social determinants of health are the conditions in which people are born, grow, live, work, and age that impact their overall health and well-being. These determinants play a crucial role in shaping an individual's health outcomes and can have a significant impact on their quality of life. Understanding and addressing these social determinants is essential for promoting health equity and improving population health [12].

There are several key social determinants of health that have been identified as having a major influence on an individual's health status. These determinants include socioeconomic status, education, employment status, social support networks, access to healthcare, and the physical environment in which people live and work. Each of these factors can have a profound impact on an individual's health and well-being, and addressing them is essential for improving health outcomes and reducing health disparities [13].

Socioeconomic status is one of the most important social determinants of health. People with higher incomes and more education tend to have better health outcomes than those with lower incomes and less education. This is due to a variety of factors, including access to healthcare, healthy food, safe housing, and opportunities for physical activity. Socioeconomic status also influences a person's ability to make healthy choices and access resources that promote good health [14].

Education is another key social determinant of health. People with higher levels of education tend to have better health outcomes than those with lower levels of education. This is because education is associated with a range of healthpromoting behaviors, such as regular exercise, healthy eating, and avoiding risky behaviors. Education also provides individuals with the knowledge and skills they need to navigate the healthcare system and make informed decisions about their health [15].

Employment status is also an important social determinant of health. People who are employed tend to have better health outcomes than those who

are unemployed or underemployed. This is because employment provides individuals with a sense of purpose, social connections, and financial security, all of which are important for maintaining good health. Unemployment, on the other hand, can lead to stress, social isolation, and financial instability, all of which can have a negative impact on a person's health [16].

Social support networks are another critical social determinant of health. People who have strong social connections and support systems tend to have better health outcomes than those who are socially isolated. Social support can come from family, friends, coworkers, and community organizations, and it plays a key role in promoting mental health, reducing stress, and providing a sense of belonging and purpose [17].

Access to healthcare is also a crucial social determinant of health. People who have access to quality healthcare services are more likely to receive preventive care, early intervention, and treatment for chronic conditions, all of which can improve health outcomes and reduce healthcare costs. Unfortunately, many individuals face barriers to accessing healthcare, such as lack of insurance, transportation, or culturally competent care, which can prevent them from receiving the care they need to stay healthy [18].

The physical environment in which people live and work is another important social determinant of health. Factors such as air and water quality, housing conditions, access to healthy food, and opportunities for physical activity can all have a significant impact on a person's health. People who live in neighborhoods with high levels of pollution, limited access to fresh food, and unsafe housing are more likely to experience health problems such as asthma, obesity, and cardiovascular disease [19].

Addressing social determinants of health requires a comprehensive and multi-sectoral approach that involves collaboration between healthcare providers, government agencies, community organizations, and other stakeholders. This approach should focus on addressing the underlying social, economic, and environmental factors that influence health outcomes, rather than just treating the symptoms of disease. By addressing social determinants of health, we can promote health equity, improve population health, and reduce health disparities for all individuals [20].

Impact of Socioeconomic Status on Healthcare Access:

Socioeconomic status plays a crucial role in determining an individual's access to healthcare services. It encompasses a person's income, education level, occupation, and social status, which collectively influence their ability to afford and access quality healthcare. Disparities in healthcare access based on socioeconomic status have been a longstanding issue, with individuals from lower socioeconomic backgrounds often facing barriers to receiving timely and appropriate medical care [21].

One of the primary barriers to healthcare access for individuals of lower socioeconomic status is financial constraints. Lack of insurance coverage or high out-of-pocket costs can deter people from seeking medical care, leading to delays in diagnosis and treatment. Limited access to affordable healthcare services, such as primary care physicians and specialists, can also hinder individuals from receiving necessary medical attention. Additionally, transportation issues and lack of paid sick leave can further impede access to healthcare for those with lower socioeconomic status [22].

Education level is another significant factor that influences healthcare access. Individuals with lower levels of education may have limited health literacy, making it challenging for them to navigate the healthcare system and understand medical This information. can result in missed appointments, non-compliance with treatment plans, and overall poorer health outcomes. Furthermore, lower levels of education are associated with lower income levels, which can exacerbate financial barriers to healthcare access [23].

Occupation and employment status also play a role in determining healthcare access. Individuals in low-wage jobs may not have access to employersponsored health insurance or may be ineligible for government assistance programs due to their income level. This can leave them without a safety net in the event of a medical emergency or chronic health condition. Additionally, individuals in precarious employment situations, such as temporary or part-time work, may not have access to paid sick leave or job security, making it difficult for them to take time off work to seek medical care [24].

Social status and discrimination can further exacerbate disparities in healthcare access.

Individuals from marginalized communities, such as racial and ethnic minorities, LGBTQ+ individuals, and people with disabilities, may face discrimination and bias in healthcare settings, leading to substandard care and unequal treatment. This can result in mistrust of the healthcare system and avoidance of seeking medical care, further widening the gap in healthcare access based on socioeconomic status [25].

Addressing disparities in healthcare access based on socioeconomic status requires a multi-faceted approach that addresses the root causes of these inequities. One key solution is to expand access to affordable healthcare coverage through programs such as Medicaid expansion and subsidies for lowincome individuals. This can help reduce financial barriers to healthcare access and ensure that all individuals have access to essential medical services [26].

Improving health literacy and education among individuals of lower socioeconomic status is also crucial in promoting healthcare access. Providing resources and information in plain language, offering health education programs in communities, and training healthcare providers to communicate effectively with diverse populations can help empower individuals to take control of their health and navigate the healthcare system more effectively [27].

Addressing social determinants of health, such as housing instability, food insecurity, and access to transportation, is essential in improving healthcare access for individuals of lower socioeconomic status. Collaborating with community organizations, social service agencies, and local governments to address these social determinants can help create a more equitable healthcare system that meets the needs of all individuals, regardless of their socioeconomic status [28].

Socioeconomic status has a profound impact on healthcare access, with individuals of lower socioeconomic status facing numerous barriers to receiving quality medical care. Addressing disparities in healthcare access based on socioeconomic status requires a comprehensive approach that addresses the root causes of these inequities and promotes health equity for all individuals. By expanding access to affordable healthcare coverage, improving health literacy, and addressing social determinants of health, we can work towards a healthcare system that is accessible and equitable for all [29].

Influence of Education and Employment on Health Outcomes:

Education and employment are two key factors that play a significant role in shaping an individual's health outcomes. Both of these factors are interconnected and have a profound impact on an individual's overall well-being [1].

Education is often considered as a powerful determinant of health outcomes. Individuals with higher levels of education tend to have better health outcomes compared to those with lower levels of education. This can be attributed to the fact that education equips individuals with knowledge and skills that are essential for making informed decisions about their health. For example, individuals with higher levels of education are more likely to have access to information about healthy lifestyle choices, preventive healthcare measures, and disease management. They are also more likely to have the ability to critically evaluate health-related information and make informed choices about their health [30].

Furthermore, education is also associated with higher income levels and better employment opportunities. Individuals with higher levels of education are more likely to secure well-paying jobs with access to healthcare benefits, which can significantly impact their health outcomes. Higher income levels allow individuals to afford better healthcare services, healthier food options, and a more comfortable living environment, all of which contribute to better health outcomes.

On the other hand, employment also plays a crucial role in shaping health outcomes. Employment provides individuals with financial stability, social connections, and a sense of purpose, all of which are important for maintaining good health. Individuals who are employed are more likely to have access to healthcare benefits and resources that can help them manage their health effectively. Moreover, employment can also have a positive impact on mental health by providing individuals with a sense of accomplishment and self-worth.

However, the relationship between education, employment, and health outcomes is complex and multifaceted. While education and employment can have positive effects on health outcomes, there are also disparities in access to education and employment opportunities that can contribute to health inequalities. Individuals from disadvantaged backgrounds or marginalized communities may face barriers to accessing quality education and employment opportunities, which can negatively impact their health outcomes. Furthermore, the type of employment and working conditions can also influence health outcomes. Individuals in low-paying or precarious jobs may experience higher levels of stress, insecurity, and exposure to occupational hazards, which can have detrimental effects on their health. Additionally, individuals in certain industries or occupations may be at higher risk of developing work-related health problems, such as musculoskeletal disorders, respiratory illnesses, or mental health issues.

Education and employment are important determinants of health outcomes that are closely intertwined. Individuals with higher levels of education and stable employment are more likely to have better health outcomes compared to those with lower levels of education and unstable employment. However, it is essential to address the underlying social and economic factors that contribute to disparities in access to education and employment opportunities in order to promote health equity for all individuals. By investing in education, creating more job opportunities, and improving working conditions, we can help to improve health outcomes and create a healthier society for everyone.

Housing Stability and Healthcare Utilization:

Housing stability and healthcare utilization are two critical aspects of well-being that are closely intertwined. The stability of one's housing situation can have a significant impact on their ability to access and utilize healthcare services. Research has shown that individuals who experience housing instability or homelessness are more likely to have poor health outcomes and higher rates of healthcare utilization. This is due to a variety of factors, including limited access to healthcare services, increased stress and mental health issues, and a lack of resources to manage chronic health conditions [15].

Stable housing provides a foundation for individuals to access and utilize healthcare services effectively. When individuals have a stable place to live, they are more likely to have a regular source of care, such as a primary care physician, and are better able to manage their health conditions. This can lead to improved health outcomes and a reduction in the need for emergency room visits and hospitalizations [30].

Furthermore, stable housing can also have a positive impact on mental health and well-being, which in turn can lead to better healthcare utilization. Individuals who are homeless or experiencing housing instability often face high levels of stress and uncertainty, which can exacerbate mental health issues and make it more difficult to engage with healthcare services. Stable housing provides a sense of security and stability, which can help individuals better manage their mental health and access the care they need [17].

Despite the clear benefits of stable housing on healthcare utilization, there are still many barriers that individuals experiencing housing instability face when trying to access healthcare services. These barriers can include lack of insurance coverage, transportation issues, stigma and discrimination, and a lack of knowledge about available resources. For example, individuals who are homeless or living in unstable housing situations may not have access to health insurance, making it difficult for them to afford necessary healthcare services. Additionally, transportation can be a major barrier for individuals who do not have a stable place to live, as they may not have reliable access to public transportation or the means to travel to healthcare appointments [4].

Stigma and discrimination can also play a role in limiting healthcare utilization for individuals experiencing housing instability. Many individuals who are homeless or living in unstable housing situations face judgment and discrimination from healthcare providers, which can make them reluctant to seek care. This can lead to delays in receiving necessary treatment and exacerbate health issues [20].

Housing stability plays a crucial role in determining an individual's ability to access and utilize healthcare services effectively. Stable housing provides a foundation for individuals to manage their health conditions, access regular care, and improve their overall well-being. However, there are still many barriers that individuals experiencing housing instability face when trying to access healthcare services, including lack of insurance coverage, transportation issues, and stigma and discrimination [29].

Addressing these barriers and promoting stable housing for all individuals is essential to improving healthcare utilization and outcomes for vulnerable populations. By recognizing the importance of housing stability in healthcare utilization and working to address the systemic issues that contribute to housing instability, we can create a more equitable healthcare system that ensures all individuals have access to the care they need to thrive [30].

Addressing Health Disparities through Policy Interventions:

Health disparities refer to differences in health outcomes and access to healthcare services among different populations. These disparities are often influenced by social, economic, and environmental factors, and can have a significant impact on the overall well-being of individuals and communities. Addressing health disparities through policy interventions is crucial in promoting health equity and improving the health outcomes of all individuals [31].

One of the key factors contributing to health disparities is access to healthcare services. Individuals from marginalized communities, such as low-income populations, racial and ethnic minorities, and rural populations, often face barriers to accessing quality healthcare services. These barriers can include lack of health insurance, limited transportation options, language barriers, and discrimination. As a result, these populations are more likely to experience poor health outcomes and higher rates of chronic diseases [7].

Policy interventions aimed at improving access to healthcare services can help reduce health disparities. For example, expanding Medicaid coverage to low-income individuals, increasing funding for community health centers in underserved areas, and implementing language access services in healthcare settings can help ensure that all individuals have access to the care they need. Additionally, policies that address social determinants of health, such as affordable housing, access to healthy food, and quality education, can also play a role in reducing health disparities [16].

Another important factor contributing to health disparities is the quality of healthcare services. Studies have shown that individuals from marginalized communities are less likely to receive preventive care, have higher rates of medical errors, and experience disparities in the treatment of certain conditions. This can lead to poorer health outcomes and higher healthcare costs for these populations [7].

Policy interventions aimed at improving the quality of healthcare services can help address these disparities. For example, implementing cultural competency training for healthcare providers, increasing diversity in the healthcare workforce, and promoting patient-centered care can help ensure that all individuals receive high-quality, culturally competent care. Additionally, policies that promote transparency and accountability in healthcare delivery, such as public reporting of quality measures and patient satisfaction scores, can help drive improvements in care quality and reduce disparities [32].

In addition to access to and quality of healthcare services, social, economic, and environmental factors also play a significant role in health disparities. For example, individuals living in poverty are more likely to experience food insecurity, lack of access to safe housing, and exposure to environmental toxins, all of which can negatively impact their health. Addressing these social determinants of health through policy interventions can help reduce health disparities and improve health outcomes for all individuals [30].

Policy interventions aimed at addressing social determinants of health can take many forms. For example, increasing funding for affordable housing programs, expanding access to nutritious foods in low-income communities, and promoting policies that reduce environmental pollution can help create healthier environments for all individuals. Additionally, policies that address income inequality, such as increasing the minimum wage and expanding access to education and job training programs, can help lift individuals out of poverty and improve their overall health and well-being [33].

Addressing health disparities through policy interventions is essential in promoting health equity and improving the health outcomes of all individuals. By focusing on access to healthcare services, quality of care, and social determinants of health, policymakers can help reduce disparities and create a more equitable healthcare system for all. It is important for policymakers to work collaborativelv with healthcare providers. community organizations, and individuals from marginalized communities to develop and implement policies that address the root causes of health disparities and promote health equity for all [34].

Conclusion:

Understanding the multifaceted nature of social determinants of health is crucial for healthcare providers, policymakers, and public health officials to develop targeted interventions that address the root causes of health disparities. By implementing policies that promote equitable access to healthcare services and address social determinants such as poverty, discrimination, and inadequate housing, healthcare systems can strive towards achieving health equity for all individuals. Additionally, community-based initiatives and collaborations between healthcare providers and social service agencies can help bridge the gap between healthcare access and improved health outcomes for vulnerable populations.

This review article underscores the importance of recognizing and addressing social determinants of health in healthcare delivery. By acknowledging the impact of socioeconomic factors, education, employment, and housing on healthcare access and outcomes, stakeholders in the healthcare system can work towards creating a more equitable and inclusive healthcare environment. Ultimately, by prioritizing interventions that target social determinants of health, healthcare systems can move closer to achieving the goal of optimal health for all individuals, regardless of their social circumstances.

References:

- 1. Adler NE, Stewart J. Health disparities across the lifespan: meaning, methods, and mechanisms. Ann N Y Acad Sci. 2010;1186:5-23.
- 2. 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.
- 3. Marmot M. Social determinants of health inequalities. Lancet. 2005;365(9464):1099-1104.
- 4. World Health Organization. Social determinants of health. Accessed November 20, 2021. https://www.who.int/health-topics /social-determinants-of-health
- 5. Berkman LF, Kawachi I, Glymour MM. Social Epidemiology. Oxford University Press; 2014.
- 6. Institute of Medicine (US) Committee on Understanding and Eliminating Racial and Ethnic Disparities in Health Care. Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care. National Academies Press (US); 2003.
- 7. Williams DR, Mohammed SA. Racism and health I: pathways and scientific evidence. Am Behav Sci. 2013;57(8):1152-1173.
- 8. Braveman P, Egerter S, Williams DR. The social determinants of health: coming of age. Annu Rev Public Health. 2011;32:381-398.
- 9. Whitehead M, Dahlgren G. What can be done about inequalities in health? Lancet. 1991;338(8774):1059-1063.
- Solar O, Irwin A. A conceptual framework for action on the social determinants of health. Social Determinants of Health Discussion

Paper 2 (Policy and Practice). World Health Organization; 2010.

- Adler NE, Newman K. Socioeconomic disparities in health: pathways and policies. Health Aff (Millwood). 2002;21(2):60-76.
- 12. World Health Organization. Closing the gap in a generation: health equity through action on the social determinants of health. Final Report of the Commission on Social Determinants of Health. World Health Organization; 2008.
- Braveman P, Egerter S, Williams DR. The role of socioeconomic factors in health disparities. In: Hofrichter R, Bhatia R, eds. Tackling Health Inequities Through Public Health Practice: Theory to Action. Oxford University Press; 2010:77-93.
- 14. Krieger N. Theories for social epidemiology in the 21st century: an ecosocial perspective. Int J Epidemiol. 2001;30(4):668-677.
- 15. Phelan JC, Link BG, Tehranifar P. Social conditions as fundamental causes of health inequalities: theory, evidence, and policy implications. J Health Soc Behav. 2010;51 Suppl:S28-S40.
- 16. World Health Organization. Health Equity Through Intersectoral Action: An Analysis of 18 Country Case Studies. World Health Organization; 2008.
- 17. Braveman P, Gruskin S. Defining equity in health. J Epidemiol Community Health. 2003; 57(4):254-258.
- Marmot M, Friel S, Bell R, Houweling TA, 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.
- 19. Williams DR, Collins C. Racial residential segregation: a fundamental cause of racial disparities in health. Public Health Rep. 2001;116(5):404-416.
- 20. World Health Organization. Health in All Policies: Framework for Country Action. World Health Organization; 2014.
- Link BG, Phelan J. Social conditions as fundamental causes of health inequalities. J Health Soc Behav. 1995;35:80-94.
- 22. Braveman P, Barclay C. Health disparities beginning in childhood: a life-course perspective. Pediatrics. 2009;124 Suppl 3: S163-S175.
- 23. World Health Organization. Social determinants of health: the solid facts. 2nd ed. World Health Organization; 2003.
- Krieger N. Epidemiology and the web of causation: has anyone seen the spider? Soc Sci Med. 1994;39(7):887-903.

- 25. Williams DR, Collins C. Racial residential segregation: a fundamental cause of racial disparities in health. Public Health Rep. 2001;116(5):404-416.
- 26. Phelan JC, Link BG, Diez-Roux A, Kawachi I, Levin B. "Fundamental causes" of social inequalities in mortality: a test of the theory. J Health Soc Behav. 2004;45(3):265-285.
- 27. Marmot M. Social determinants of health inequalities. Lancet. 2005;365(9464):1099-1104.
- 28. Braveman P, Egerter S, Williams DR. The social determinants of health: coming of age. Annu Rev Public Health. 2011;32:381-398.
- 29. World Health Organization. Closing the gap in a generation: health equity through action on the social determinants of health. Final Report of the Commission on Social Determinants of Health. World Health Organization; 2008.
- Solar O, Irwin A. A conceptual framework for action on the social determinants of health. Social Determinants of Health Discussion Paper 2 (Policy and Practice). World Health Organization; 2010.
- 31. Adler NE, Stewart J. Health disparities across the lifespan: meaning, methods, and mechanisms. Ann N Y Acad Sci. 2010;1186:5-23.
- 32. Berkman LF, Kawachi I, Glymour MM. Social Epidemiology. Oxford University Press; 2014.
- 33. Institute of Medicine (US) Committee on Understanding and Eliminating Racial and Ethnic Disparities in Health Care. Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care. National Academies Press (US); 2003.
- Whitehead M, Dahlgren G. What can be done about inequalities in health? Lancet. 1991;338 (8774):1059-1063.