

Social and Economic Determinants of Health

Definition: Social and economic determinants of health include measures of individual and family socioeconomic position, neighborhood conditions, and societal and cultural factors that influence health. Individual and family measures of social and economic determinants of health include factors such as household income, education, and occupation. Neighborhood characteristics affecting health include factors such as quality of housing and schools; availability of medical facilities, libraries, public transportation and parks; and environmental hazards. Social support and racial discrimination are examples of societal and cultural factors affecting health. The social and economic conditions into which people are born affect health throughout the life span and across generations.

Summary

Social and economic conditions are major determinants of health. Income, wealth, education, employment, neighborhood conditions and social policies interact in complex ways to affect our biology, health-related behaviors, environmental exposures, and availability and use of medical services. Health impacts associated with lower socioeconomic position (SEP) can begin before birth and build up throughout life. More simply stated, being poor is bad for health.

Despite national efforts to eliminate health disparities—including those related to low SEP—by 2010, neither Washington nor the nation achieved this goal. In fact, disparities grew for many measures of SEP and health.

Evidence-based approaches for reducing the impact of low SEP on health include home visits to socially deprived pregnant women and new mothers, comprehensive center-based programs for children ages three to five from low-income families, full-day kindergarten for low-income and minority children, and tenant-based rental assistance programs for low-income families.

In addition to well-evaluated approaches, the Centers for Disease Control and Prevention supports initiatives to improve health among people of lower SEP by designing communities that encourage mixed land use; provide good public transportation and pedestrian and bicycle infrastructure; contain affordable housing, green space, parks and community centers; and create outlets for fresh fruits and vegetables. The National Research Council and Institute of

Medicine recommend studying policies, which foster reductions in social disparities and result in better health for all, in other high-income countries, such as tax policy and policies for providing transportation, education and other services. Many national organizations discuss the need to change our thinking about what keeps us healthy away from an emphasis on medical treatment to focus on upstream factors such as social determinants of health.

Introduction

Many factors affecting health lie beyond the healthcare system in the broader social and economic systems of a society. Socioeconomic position (SEP) is a term that social scientists use to describe material and social resources available to individuals, as well as their rank or status in the social hierarchy. An extensive body of literature documents higher death rates among people of lower compared to higher SEPs.¹ This means that people of lower SEP die at younger ages than those of higher SEP. More simply stated, being poor is bad for health.

In the past 100 years, the major causes of death nationally and in Washington have shifted from infectious diseases to chronic conditions, such as cardiovascular disease, cancer and diabetes. Yet differences in death rates and life expectancy by SEP persist, suggesting something fundamental about this association despite changing causes of death.² Researchers often find an inverse, stepwise relationship between SEP and death rates: for each incremental decrease in SEP, there is a corresponding increase in the death rate. Thus, even people of mid-range SEP tend to have higher death rates than those at the highest SEP.³

The health impacts of lower SEP can begin prior to birth, accumulate over time and persist throughout life.⁴ In addition to individual SEP, a neighborhood's average level of income and education also influence health.⁵

Because of the strong association between SEP and health, where possible, each chapter in *Health of Washington State* includes information about health and related risk factors measured by two strong indicators of SEP: education and economic resources. Each chapter also examines differences in health by race and ethnicity. The chapter [Socioeconomic Position in Washington State](#) describes education and economic resources for Washington State residents overall and for selected subpopulations within Washington.

2010 and 2020 Goals

The national *Healthy People 2010* initiative had an overarching goal of eliminating health disparities, including those related to SEP. Many chapters in *Health of Washington State* document large disparities by income, education, race and Hispanic origin. Thus, Washington has not met the goal of eliminating health disparities. Washington is not alone. Nationally in 2010, health disparities persisted for about 80% of *Healthy People 2010* indicators that measured disparities. In fact, in 13% of categories the gap between the healthiest and least healthy groups grew from 2000 to 2010.⁶

Healthy People 2020 also includes an overarching goal to eliminate disparities related to SEP, as well as a section on social determinants of health. This section has a goal of creating social and physical environments that promote good health for all. *Healthy People 2020* is beginning to define measures for this section.

In 2010 all 50 U.S. governors created a common definition of "on-time" high school graduation that was adopted by the U.S. Department of Education.⁷ *Healthy People 2020* uses the common definition and has the goal of increasing to 82.4% the proportion of high school students who graduate four years after starting ninth grade. Washington State has a more ambitious goal of 85% by 2014.⁸ For the academic year ending in 2010, Washington students had an "on-time" graduation rate of 76.5%, indicating the need for considerable progress to achieve the state and national goals.⁸

Other *Healthy People 2020* indicators related to social determinants of health include improving health literacy and increasing the proportion of children ready for school. There are not yet measures for these indicators.

Eliminating health disparities related to SEP likely requires fundamental changes in economic and educational policy.⁹ Such changes may be difficult to achieve. For example, a 2012 study from Washington State Office of Financial Management¹⁰ and a 2013 national study¹¹ both conclude that Washington's tax structure places a greater tax burden on low- and middle-income families compared to the best-off families, yet discussion of significant changes to our tax structure has been largely lacking.

Even if change is implemented soon, it might take decades to eliminate health disparities linked to social determinants of health. Deprivation and stress from conception through early childhood can increase risk for poor health across the lifespan for those of lower SEP.

Explanations of the Relationship between SEP and Health

Research into the social and economic determinants of health has moved from describing and documenting the relationship to determining why the relationship exists. No single factor explains the relationship. Instead, multiple factors accumulate over time. The following summary helps to explain the relationship between health and factors that make up social determinants of health.

Chronic stress. Sources of chronic stress include persistent poverty, experiencing discrimination, and exposure to pollution and crime. Chronic stress contributes to poor physical and mental health.¹² Researchers continue to explore how chronic stress alters the brain and other systems in the body and how these changes affect health. For example, some of the changes related to chronic stress affect how our immune systems work. This, in turn, can lead to chronic inflammation that increases risk for diabetes, high blood pressure, heart attack and stroke.¹³

Chronic stress also affects how individuals feel and manage their emotions, engage in behaviors needed for good social relationships, and perform cognitive functions.^{13,14} The most profound effects of chronic stress may unfold over a lifetime and across generations.^{14,15,16}

Low SEP can lead to feelings of social inferiority and lack of control at work and home which add to daily

stress. People at low SEP might be particularly vulnerable to factors causing stress because they have fewer resources and less effective coping strategies, as well as more potent sources of stress.¹⁷

Early childhood and intergenerational factors. Growing up in poverty or with other early life stressors might not cause immediate health consequences but can significantly affect an individual’s future health. For example, chronic maternal stress alters hormonal regulation during pregnancy. Excess “stress” hormones like cortisol can cause preterm labor and slow fetal growth, both of which cause low infant birth weight.¹⁴ Recent evidence suggests that low birth weight, which is more common for newborns among women of low compared to high SEP, increases risk of coronary heart disease and diabetes.¹⁸ A growing body of research also links adverse childhood experiences to altered brain and immune system development affecting lifelong health.^{19,20,21} Many adverse childhood experiences—for example, child abuse and neglect and exposure to domestic violence—are more common among children of low compared to high SEP.^{22,23}

In addition to social circumstances affecting biology, parental income and education determine children’s housing conditions, food quality and access to educational opportunities. In turn, these factors affect future employment and adult SEP. Other critical life events—such as transitions from school to job to marriage and childrearing to retirement—require material resources that people living in lower SEP households often lack.

Race and ethnicity. “Race” and “ethnicity” are socio-cultural constructs that are often linked to social and economic factors. In a race-conscious society like the United States, race classifications reflect social classification and can capture the impact of racism.²⁴ Racial discrimination contributes to uneven distribution of income, education, neighborhood poverty, and access to healthcare. It can become a source of chronic stress that contributes to poor health independent of income and education.²⁵ The experience of racial discrimination may be relatively subtle and arise even in the absence of conscious or intentional discrimination.²⁵ Understanding the differences between individual, institutional and internalized racism can clarify the relationship with health and help

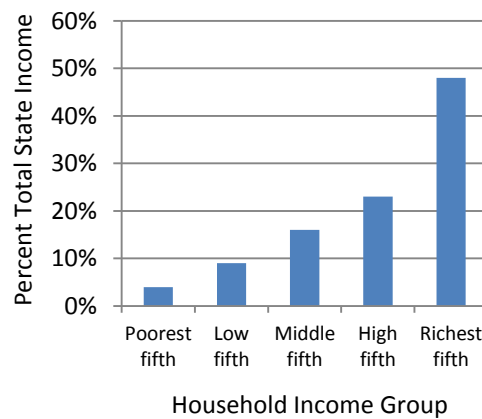
tailor strategies to counteract negative health impacts.²⁴

Income, income inequality and wealth. Material deprivation, as well as other stresses associated with lack of sufficient financial resources, contributes to poorer health among those with low incomes. People with lower incomes often do not have sufficient money to meet basic material needs such as safe housing, high quality food and preventive medical services.

The income gap—the extent to which income is distributed unevenly—also affects health. In general, populations in countries with greater income inequality have poorer health than in countries with more even income distribution.²⁶ A larger income gap has been linked to disparities in infant death,²⁷ teen birth rates,²⁸ violence and all causes of death.²⁹ Among 34 countries—most of which are considered “developed”—the income gap in the United States in the late 2000s was the 31st highest,³⁰ and income inequality in the United States has increased since then.³¹

To illustrate the income gap, in 2010 workers making minimum wage in Washington—the highest minimum wage nationally—earned about 1/5 cent per second, while top hedge fund managers nationally ranged from about \$40 per second to \$155 per second.³² Additionally, if income were evenly distributed across households in Washington, a fifth of households would receive a fifth of the total income. In contrast to equal distribution, in 2011 the wealthiest 20% of Washington households received almost 50% of the income, while the poorest 20% received less than 5%.³³

Income Distribution Among Households in Washington
2011 American Community Survey



Theories about why income inequality leads to poorer health include low [social capital](#) where inequality is high³⁴ as well as anxiety about social status resulting in feelings of failure, inadequacy and chronic stress. This might be especially true in societies that place great value on acquiring material goods, personal responsibility and occupational status.³⁵

Accumulated wealth also affects access to resources, levels of material deprivation and relative economic equality, and thus is also related to health. A 2001 report notes that nationally in the previous 30 years African Americans would have gained significant economic ground relative to whites if they had inherited similar amounts or had comparable levels of family income and similar portfolio compositions. Therefore, even if the income gap between whites and blacks was immediately eliminated, the report noted that it could take another two generations for the wealth gap to close.³⁶ A 2011 report using data collected by the Pew Research Center notes that the wealth gap is widening. In 2009, whites in the United States had 19 times more accumulated wealth than blacks and 15 times more than Hispanics. This gap is substantially larger than any time since 1984, the earliest year of data provided in the report. The report notes that accumulated wealth of blacks and Hispanics was disproportionately affected by the 2006 collapse of the housing bubble and the recession that followed. In 2009, 25% of blacks and Hispanics had no assets other than a car, compared to 6% of whites.³⁷

Education. National data from 2009 show that death rates are two to three times higher for adults ages 25–64 with a high school education or less compared to adults who have completed at least some college.³⁸ This is similar to 2008–2010 Washington State data showing death rates for residents ages 25–64 with a high school education or less about four times higher than those of residents with a college education or more.³⁹

A 2010 review article summarized three pathways through which education affects health: increased health knowledge, which enables healthier behaviors and medical care management; higher chance of being employed and having a job with healthier working conditions, better employment benefits and higher wages; and social and psychological factors, including a sense of control, social

standing and social support, all of which are important to health.¹⁹

A 2011 Robert Wood Johnson Foundation brief focused on the pathways through which parents' educational levels affect their children's education, perpetuating intergenerational cycles. Directly, parents with more education can provide more support and resources; indirectly, parents with lower educational levels might have lower expectations for their children and might create less stimulating environments than those with more schooling.⁴⁰

Social capital. The Centers for Disease Control and Prevention (CDC) defines social capital as “the individual and communal time and energy that is available for such things as community improvement, social networking, civic engagement, personal recreation, and other activities that create social bonds between individuals and groups.” This definition captures both individual and community aspects of social capital.⁴¹

Measures of social capital include social trust and participating in civic and social organizations. Several studies have documented better health in communities where trust and social support are high.^{34,42,43} Reasons for this relationship are not clear, but communities with low levels of trust might not provide the social support, assistance, information sharing, and community infrastructure development and services that promote health.^{34,43}

Neighborhood characteristics. Neighborhoods vary in systematic ways that affect residents' health. Most, but not all, studies find that poorer neighborhoods have fewer parks or other places that provide opportunities for physical activity compared to wealthier neighborhoods.^{44,45} Even where parks and facilities are equally distributed, the quality of facilities may differ⁴⁶ and concerns for safety might limit use in poorer neighborhoods.⁴⁷ Residents of poor neighborhoods can also lack access to affordable, healthy foods.^{48,49,50,51} In spite of new laws designed to limit tobacco advertising,⁵² poorer neighborhoods continue to have more exposure to tobacco advertising than wealthier ones.⁵³

Low wage work environments are more likely to expose workers to toxins or physical hazards.⁵⁴ Children who live in older, poorly maintained houses often found in low-income neighborhoods can be exposed to indoor allergens that increase the frequency and severity of asthma attacks.⁵⁵ The U.S. Department of Education has documented lower per-pupil school spending at schools serving high proportions of children from low-income families

compared to schools in the same districts serving children from wealthier families.⁵⁶

Both intentional and unintentional injuries tend to cluster in areas with high unemployment, large percentages of residents with low educational and income levels, and more non-white residents.⁵⁷ In addition to immediate health consequences to injury victims, these events can be major sources of stress for people in these communities.

Lifestyle. Several important behavioral risk factors for poor health are more common among people in lower SEP groups. As described in the [Tobacco Use](#) chapter of *Health of Washington State*, despite overall declines in cigarette smoking, people of lower SEP are more likely to smoke than people of higher SEP. Smoking is also more common among people in some racial or ethnic groups, particularly American Indian and Alaska Natives. As described in other chapters in *Health of Washington State*, Washington adults with lower incomes or less education are more likely to be obese, eat fewer fruits and vegetables, and be less physically active than adults with higher incomes or more education. Lack of sufficient income and conditions associated with poor neighborhoods can make healthy lifestyles difficult to achieve for people in lower SEP groups.

The broader culture also influences ways of living. For example, cultural prohibitions on smoking result in fewer smoking-related diseases.⁵⁸ Obesity is more acceptable in some communities and social networks than in others. Those with obese friends are more likely to become obese.⁵⁹ African American women have higher rates of obesity than white women,⁶⁰ and there is evidence that the African American community stigmatizes obesity less than the white community.⁶¹ However, ways of living do not fully explain differences in health status by SEP. Studies find increased death rates among those of lower SEP even after taking many common health risk factors, such as smoking, into account.⁶²

Medical care. Lack of access to or inadequate use of medical services, especially preventive services, contributes to relatively poorer health among people in lower SEP groups. Washington data from the 2011 [Behavioral Risk Factor Surveillance System](#) show that adults living in households with annual incomes less than \$25,000 are less likely to have a personal healthcare provider—one indicator of access—

compared to those with higher incomes. Likewise, Washington adults who have not attended college are less likely than others to report having a personal healthcare provider.

Poorer quality of healthcare also contributes to poorer health among people of low SEP. A 2011 report documenting disparities in healthcare in the United States notes that disparities in quality of care are common: older adults, Hispanic and non-white populations, and poor people received lower quality of care on about 30% to 50% of the measures assessed.⁶³ Other factors, such as lack of culturally and linguistically competent providers and distrust that they will be treated fairly, compound the issues of access and quality of care for people of low SEP.^{63,64} People might also need social resources—such as knowledge, wealth, prestige and social connections—to take advantage of new health-enhancing technologies.⁶⁵

While access to high-quality healthcare, especially preventive services, can reduce health disparities, the conditions that lead to poor health are more important to the health of the population than medical care once people become sick.¹⁹ Thus, poorer health among those of low SEP has been consistently noted in European countries which guarantee universal access to healthcare.²⁶ Additionally, higher spending on healthcare does not always lead to better health. The United States spends more than twice as much on medical care compared to other high-income, developed countries, but ranks near the bottom on many important measures of health: people in the United States do not live as long, and they are more likely to be obese; to have heart disease, diabetes, lung disease, HIV and AIDS, or disabilities; die in car crashes or be murdered; and die from alcohol or drug abuse. Children in the United States are more likely to die before their first birthdays, and teenagers are more likely to get pregnant.^{9,66} The gap in health between the U.S. and other economically developed countries is particularly large for poorer people in the United States, but even white U.S. residents with healthy behaviors, health insurance, college educations or high incomes appear to have poorer health than their counterparts in England and some other European countries.⁹

[Intervention Strategies](#)

While health disparities related to social and economic factors have been well-documented, there has been less attention to developing evidence-based interventions to reduce disparities in SEP

directly or to mitigate the impact of these disparities on health.

[The Community Guide](#) recommends the following evidence-based approaches:

- Full-day kindergarten for low-income and minority children to improve reading and mathematics achievement—factors closely related to long-term academic and health-related outcomes, such as reduced teen pregnancy.⁶⁷
- Comprehensive center-based programs, such as Head Start and Early Childhood Education and Assistance Program, for children ages three through five in low-income families.⁶⁸ These programs prevent delays in cognitive development and increase readiness to learn. The Guide notes one such program that assessed participants at ages 19 and 27 and found fewer teen pregnancies and arrests and higher high school graduation rates and earnings compared to similar children who did not participate in the program.⁶⁹ These programs also help parents provide stability and stimulation to children and strengthen their ability to meet children’s developmental needs at home.
- Tenant-based rental assistance programs to reduce exposure to crime and victimization of low-income individuals.⁷⁰

In 2009, The American Academy of Pediatrics concluded that there is sufficient evidence to support home visiting for improving health and factors related to social determinants of health, especially for mothers with greatest social deprivation. Home visiting programs for pregnant women and new mothers teach parenting skills, provide social support and link families with community services. Home visiting improves parenting skills and the home environment, reduces unintentional injury, enhances maternal employment and education, and improves intellectual development among children. The Academy noted that home visiting programs are most effective when they begin in pregnancy and continue for two to five years, are flexible, have a broad focus, and use nurses or well-trained paraprofessionals.⁷¹

Many national organizations offer approaches that have yet to be evaluated. These often focus on reducing the impact of low SEP on health, but some include proposals to narrow social and economic gaps themselves.

CDC programs, such as Healthy Places and Community Transformation, recommend direct community-based interventions and policy approaches for reducing the impact of SEP on health. The medical care component of Community Transformation has a strong evidence base, but most other strategies have not been evaluated. Healthy Places strategies include designing communities that encourage mixed land use; provide good public transportation and pedestrian and bicycle infrastructure; contain affordable housing, green space, parks and community centers; and create outlets for fresh fruits and vegetables.^{72,73} These approaches might particularly benefit people of low SEP who often face challenges in securing resources that protect health. Community Transformation focuses on reducing health disparities and provides strategies to increase physical activity, improve nutrition, reduce smoking, and assure quality medical care.

National “Call to Action” initiatives are new and have not yet demonstrated effectiveness in reducing health disparities related to SEP. Examples include: the federal Department of Health and Human Services National Partnership for Action to End Health Disparities and its companion National Stakeholders Strategy for Achieving Health Equity.^{74,75} In 2010 the National Association of County and City Health Officials published an updated edition of *Tackling Health Inequities Through Public Health Practice*.⁷⁶ This publication offers a starting point to address fundamental causes of health inequities. It provides general approaches illustrated by specific examples for:

- Shifting consciousness and paradigms about determinants of health.
- Measuring social determinants of health and health inequities.
- Actions to reduce health inequities.

Other “calls-to-action” focus on communicating the poor health status of the United States compared to other developed nations.^{9,77} One of these calls to actions also recommends studying policies—social, economic, educational, urban and rural development, housing, transportation, and healthcare financing and delivery—of other high-income countries and considering their application in the United States.⁹ Both documents suggest that policies aimed at reducing high economic inequality and paying more attention to early life issues might be particularly important.^{9,77}

The 2010 Robert Wood Johnson Foundation report, *A New Way to Talk About Social Determinants of Health*, provides language for talking about social

determinants of health in a way that explains issues independent of an audience's political perspectives or agendas.⁷⁸

See Related Chapters: [Mortality and Life Expectancy](#), [Self-reported Health Status](#), [Socioeconomic Position in Washington State](#)

For More Information

Association of State and Territorial Health Officials, Health Equity <http://www.astho.org/programs/health-equity/>

Centers for Disease Control and Prevention MMWR Supplement / Vol. 60. CDC Health Disparities and Inequities Report – United States, 2011 <http://www.cdc.gov/mmwr/pdf/other/su6001.pdf>

National Association of County and City Health Officials, Health Equity and Social Justice, <http://naccho.org/topics/justice/index.cfm>.

World Health Organization Commission on Social Determinants of Health, http://www.who.int/social_determinants/en/.

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