

Social Determinants of Health

Social conditions are major determinants of health. Social forces acting at a collective level shape individual biology, individual risk behaviors, environmental exposures, and access to resources that promote health. There is a graded relationship between social position and health status that affects people at all levels of the social hierarchy. While public health programs alone cannot ameliorate the social forces that are associated with poor health outcomes, developing a better understanding of the social determinants of health is critical to reducing health disparities among Washington State residents of differing socioeconomic position.

Introduction

Although average life expectancy improved dramatically during the last century, there are differences in life expectancy and health among people with different levels of education and income, different types of occupations, and among people who live in neighborhoods characterized by differing levels of community wealth and infrastructure. These characteristics measure what social scientists refer to as socioeconomic position or SEP. SEP includes both material and social resources as well as rank or status in a social hierarchy. This term might be preferable to the term socioeconomic status or SES, which emphasizes status over resources.¹

An extensive body of literature documents higher mortality rates among people of lower SEP. SEP is most often measured by income, education, occupation, or composites of those factors but also can be measured by community resources and social factors, such as social cohesion. The general pattern

Definition: The social determinants of health refer to both specific features of and pathways by which societal conditions affect health and that potentially can be altered by informed action.¹ Examples are income, education, occupation, family structure, service availability, sanitation, exposure to hazards, social support, racial discrimination, and access to resources linked to health.

of better health among those of higher SEP is found regardless of the time period or population studied.² The pattern persists at all levels, such that those of even relatively high SEP die at younger ages than those at the highest levels.³

As health conditions have improved over time, the factors that accounted for mortality in the past, such as infectious diseases, are different from those that account for present mortality. Yet the relative differences in mortality rates by SEP remain unchanged. This suggests that there must be something fundamental about the association between SEP and mortality that causes it to persist despite changing conditions.⁴

Because of the strong association of SEP and health, where possible, each chapter in *The Health of Washington State* includes information about health and related risk factors measured by two indicators of SEP, education and income. Health disparities by race and ethnicity, characteristics strongly associated with SEP in Washington state, are also explored. Understanding the social and environmental context that gives rise to poorer health among people of lower SEP is important in developing strategies to improve the health of Washington's population.

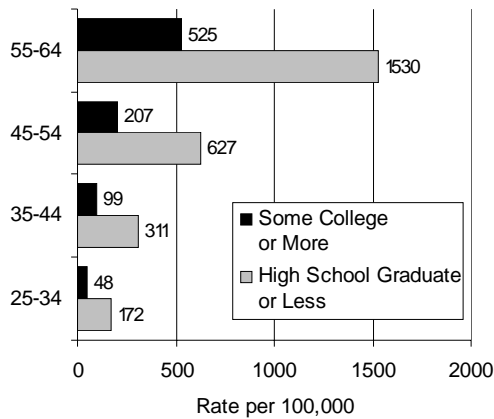
Year 2010 Goal

The two overarching goals in *Healthy People 2010* are to “increase the quality and years of healthy life,” and to “eliminate health disparities.”⁵ *Healthy People 2010* states explicitly that “inequalities in income and education underlie many health disparities in the United States,” and that community, state, and national organizations will need to take a multidisciplinary approach “that involves improving health, education, housing, labor, justice, transportation, agriculture, and the environment” if these disparities are to be reduced or eliminated.

Relationship Between Health and Social Factors in Washington

Among Washington's working-age people (25 – 64 years old), those with a high school education or less have higher death rates than people who have at least some formal education beyond high school. This is true in all age groups examined.

**Total WA State Death Rates
Age Group and Education Level
Average Annual Death Rates, 1997-1999**



In recent years the difference between mortality rates by education might be increasing for the older age groups. From 1992 – 1994, the death rates for Washington residents age 45 – 64 years with a high school education or less were less than twice the death rates for people with more years of schooling,⁶ and for 1997 – 1999, they were about two and a half times higher. These patterns reflect national trends toward an increasing gap in mortality rates by SEP.⁷

In addition to lower death rates, Washington residents with higher incomes and higher levels of education also are more likely to say that their health is excellent, very good, or good. (See [Self-Reported Health Status](#).)

Explanations for the Relationship Between SEP and Health

Research into the social determinants of health has moved beyond describing and documenting the relationship between SEP and health indicators to testing theories about the reasons for the disparities. Early theories focused on differences in the risks of overcrowding, poor housing, poor sanitation, and malnutrition. However, public health efforts to improve sanitation, better working conditions, and promote mass immunization have reduced, but not eliminated, SEP differentials in health status.

Kreiger argues that a theoretical framework for understanding the relationship between SEP and health is essential to the development of strategies to reduce these disparities.⁸ She proposes an eco-social framework: ecological, because it considers the various levels of organization from the smallest cellular level to the larger ecosystem; and social, because it takes into account the social structures that

affect health. Central to this framework is the concept of embodiment, in which we literally incorporate, biologically, the material and social world in which we live. Below we consider several of the major perspectives that might, ultimately, be integrated into an eco-social or similar framework.

Income inequality (Relative deprivation). Recent evidence suggests that in addition to individual income it might also be important to consider the overall distribution of wealth in a society. According to the relative deprivation theory, someone with a given income would have better health if he or she lived in a society where income was distributed more equally than in a society where the rich are richer and the poor are poorer.

European studies find that industrialized countries with a more equal distribution of income have longer life expectancies.⁹ Recently, similar results have been documented among US states and metropolitan areas: those with more equal distribution of income have higher levels of self-reported health status¹⁰ and lower all-cause mortality rates.^{11,12,13} At an individual level, people living in states with high income inequality have a higher mortality risk, even after adjusting for individual characteristics such as income.¹⁴ In this study, Washington was considered to have moderately low levels of income inequality.

There are important biological effects of chronic stress.¹⁵ Income inequality might affect health through chronic social stress, which could be caused by low social status, low perceptions of control, or working in high effort situations where the chances of reward are small.^{15,16} Income inequality might also affect health through its effect on social capital, as discussed below.

Social capital. One definition of social capital is “the resources imbedded in social relations among people and organizations that facilitate cooperation and collaborations in communities.”¹⁷ Because it is an attribute of communities, it differs from social support, which is an individual attribute. Communities with high levels of social capital come together readily to work for a common goal. Measures of social capital include social trust and participation in civic and social organizations.

Low levels of social capital have been associated with higher mortality rates.¹⁸ In areas with high income inequality, social trust is low, in part because, as Wilkinson notes, friendship and inequality are not compatible.¹⁹ Friendship includes the concepts of acceptance, appreciation, and reciprocity, while social hierarchy involves dominance and subordination, competition, and social comparison. In communities in which most people are social equals, levels of friendship and social trust – and hence, social capital – will be relatively high.

Although social capital is generally considered a community asset, there are examples of cohesive groups with high amounts of social capital that use their cohesion to exclude or discriminate against others. Thus, in fostering social capital, care must be taken that it does not lead to exclusion and discrimination against subgroups within a community.

Racial discrimination. The US Department of Health and Human Services reports that people of color, particularly African Americans, have much higher rates of death from homicide, HIV infection, infant mortality, diabetes, stroke, heart disease, cancer, and unintentional injury than whites.²⁰ American Indians have higher rates of liver disease, diabetes, homicide, suicide, unintentional injuries, and infant mortality than whites. The Centers for Disease Control and Prevention asserts “categories of race are primarily a reflection of sociological phenomena, and represent the interaction of biological, cultural, socioeconomic, political, and legal determinants.” Diseases that are linked to genetic differences between races (such as sickle-cell anemia in African Americans) account for only a small fraction of racial disparities in morbidity and mortality.²¹

In the US, people of color have disproportionately high rates of poverty. However, poverty and associated factors do not explain all of the disparities in health among people of different races. For example, African Americans have a two- to threefold higher prevalence of high blood pressure compared to whites, even after controlling for risk factors such as diet, alcohol, and obesity and psychosocial factors such as anger expression and social support. Although the reasons for this pattern are not known, some researchers hypothesize that the experience of racial discrimination plays a role.²²

Racial discrimination might also contribute to increased exposure to environmental toxins. Hazardous waste sites in the US are more likely to be located near communities with people of color, even after controlling for economic factors. Most studies comparing the importance of race and economic factors in siting of hazardous waste sites suggest that race is an even stronger predictor than SEP.²³

Factors related to medical care. Inadequate use of medical services, especially preventive services, is often suggested as a cause of relatively poor health among people in lower socioeconomic groups. Federally funded programs to reduce financial barriers (such as Medicaid) have been successful in increasing health access for the poor, but these programs have not eliminated disparities in health. Some research suggests this occurs because health

care received by the poor is inferior in quality, and because other factors, such as cultural differences, remain as barriers to access.²⁴ Others assert that social resources, such as knowledge, wealth, prestige, and social connections are needed to take advantage of new health-enhancing technologies.⁴ It is interesting to note that countries with universal access to health services still show gradients in health status by SEP.²⁵

Some have suggested that the social and economic conditions which influence whether people become ill are much more important than acute medical care.²⁶ Support for this comes from the 2000 World Health Report,²⁷ which shows that the US ranks first among all 191 member nations in per capita health care expenditures (\$4,187 per person per year in 1997 US dollars), but ranks 24th in years of healthy life expectancy.²⁸ In other words, there is not a direct relationship between medical expenditures and healthy life expectancy.

Factors related to lifestyle. Several important risk factors for adverse health outcomes are more prevalent among people in lower SEP groups. For example, Washington adults with lower incomes or less education report more smoking and obesity and lower consumption of fruits and vegetables than adults with higher incomes and more education. However, a higher prevalence of risk factors among those with less education or fewer economic resources does not fully explain socioeconomic differences in health status. Some studies reveal increased mortality among lower socioeconomic groups even after taking many of these risk factors into account.^{29,30}

It is important to ask what accounts for these differences. One answer is that people living in low-income neighborhoods might not have access to sufficiently nutritious foods, safe places to exercise, and other resources that result in improved health and well-being. For example, some research suggests that healthful foods are less abundant and more costly in low-income neighborhoods.³¹ Studies in major US metropolitan areas confirm that tobacco products and alcohol are marketed more aggressively in low-income communities.³²

Lifestyle factors are also determined by broader cultural constructs so that an individual’s risk of illness mirrors the risk of the population to which he or she belongs. For example, a person living in Finland is more likely to die of coronary heart disease than a person living in Japan, because the entire Finnish population has higher cholesterol levels than the Japanese population. Thus, a cholesterol level that is considered “low” in Finland is “high” in Japan. Studies have shown that the Japanese population’s cholesterol levels are not genetically determined: Japanese migrants to the US develop the cardiovascular risk profiles of US citizens, indicating that the differences in risk have more to do with socially and culturally influenced eating and exercise habits than with

genetic differences.³³ Likewise, smoking is culturally unacceptable for women in some ethnic groups. In these groups, women die less often from smoking-related disease than women in groups where smoking is socially accepted.

Factors related to the physical environment. People with lower incomes are more likely than people with higher incomes to live or work in environments that put them at risk of exposure to toxins and carcinogens. For example, people living in older or dilapidated housing risk exposure to lead-based paints, which are especially hazardous for young children.³⁴ Members of lower socioeconomic groups are also more likely to work as manual laborers, which increases their risk of occupational injury or death and their risk of exposure to toxic or carcinogenic substances.³⁵ Low socioeconomic neighborhoods are more likely than middle or higher socioeconomic neighborhoods to be situated near toxic waste sites and other potential environmental hazards.³⁶

A life-course perspective. Social circumstances at an earlier, more vulnerable stage in life can predict future morbidity and mortality rates as much as current risk factors experienced by the individual. A poverty-stricken upbringing, or other past life stressors, might not cause immediate health consequences but can significantly affect an individual's future health status.³⁷ For example, a 21-year prospective study in Scotland found that childhood disadvantage, defined by father's occupation and postal code of residence, contributed to cardiovascular disease risk, even after controlling for known cardiovascular risk factors.³⁸ Parental income and education determine children's housing conditions, food quality, and access to educational opportunity, and these factors, in turn, affect future employment prospects and adult SEP.

Social support. People who belong to a social network in which they communicate frequently and share a sense of mutual obligation feel cared for and valued, which greatly affects their health.²⁶ Individuals with social support have a reduced risk of mortality from specific diseases and recover more quickly from already-diagnosed illness.³⁹ Some research shows that people of higher SEP have larger networks of social support and higher levels of perceived social support. However, the evidence that people of lower SEP have less supportive social relationships is not consistent, especially among women.⁴⁰

Intervention Strategies

Intervening to change social, economic, and cultural determinants of health is inherently complex. The literature confirms that social conditions are a major determinant of health. However, poverty, economic inequalities, racial discrimination, childhood deprivation, and work-related stress cannot be addressed only by public health and the health care system. These are social issues, influenced by social policy, not just health policy.⁴¹ One role for public health is to inform policy makers of the evidence that currently exists linking social conditions and health. In this way, decision makers will have a better understanding of how their decisions will ultimately affect the health of the populations they serve.

In Europe, the World Health Organization (WHO) has launched the WHO Healthy Cities Project, a long-term international development project that has become a major public health movement at the local level. To promote debate about the social determinants of health and to assist policy makers, members of the project team have developed a booklet²⁶ which identifies ten major social determinants of health, discusses ongoing research on these determinants, and suggests specific policy proposals for both local and national governments. For example, under "Early Life," the authors recommend introducing preschool programs to promote educational attainment and to ensure that mothers have adequate social and economic resources to care for their children.

In the US in the mid-1990s, an independent national task force was created to develop a "Guide to Community Preventive Services." The purpose of the Guide is to summarize what is known about the effectiveness of community-based interventions to improve population health.⁴² The section on the sociocultural environment describes community-based interventions that have been shown to be effective in improving health status by altering factors related to social determinants of health. The task force currently recommends center-based preschool programs, such as Head Start, to prevent developmental delay, and rental vouchers to allow lower income individuals to find housing in safe neighborhoods, and thus reduce intentional injuries associated with crime and violence.⁴²

In our state, Public Health – Seattle and King County, along with its public and private partners, has developed a document called "Communities Count" which assesses the well being of people and communities in King County based on a set of community-defined social and health indicators.⁴³ The document highlights the importance social and community factors in individual and community health outcomes. In current and future iterations of "Communities Count," indicators of social

determinants such as income and social capital will be tracked along with health indicators.

Interventions focusing on the social environment can complement traditional prevention programs that emphasize reducing or eliminating risk factors among individuals. Although individual behavioral choices remain important risk factors for many diseases, we can understand these behaviors more fully – and intervene more effectively – when we consider the social context in which they occur.

See related chapters on [Mortality and Life Expectancy](#) and [Self-Reported Health Status](#).

Data Sources (For additional detail, see [Appendix B](#))

[Washington State Death Certificate data](#), 1980-1999 CD-ROM issued February 2001.

Education Denominators: Washington State Office of Financial Management, 1998 State Population Survey.

For More Information

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