Social and Economic Determinants of Health

Definition: Social and economic 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 preventive medical services.

Summary

Social and economic conditions are major determinants of health. Social and economic forces acting at a collective level shape individual health and risk behaviors, environmental exposures, and access to resources that protect good health. Health impacts associated with lower socioeconomic position accumulate and persist throughout the lifespan. The inverse, stepwise relationship between social position and health status often affects people at all levels of society. Developing a better understanding of the social and economic determinants of health is essential to reduce health disparities among Washington State residents. Public health professionals can partner with communities and with local and state agencies to implement policies and programs designed to address social and economic factors associated with poor health outcomes.

Introduction

Although life expectancy improved dramatically during the last century, differences in life expectancy and health persist among people with different levels of education, income, and occupation. Similar variations occur in neighborhoods that differ in terms of community wealth and infrastructure. These characteristics measure the cumulative effects of variations in the socioeconomic position (SEP) of individuals, a term that social scientists use to describe both the 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 mortality rates among people of lower compared to higher SEP. This means that people of lower SEP die at relatively younger ages than those with higher SEPs. Researchers have noted this pattern in a variety of historical periods and population groups.[2] In the past 100 years, the major causes of death shifted from infectious diseases to chronic conditions, such as cardiovascular disease, cancer, and diabetes. Yet differences in mortality rates by SEP have persisted, suggesting something fundamental about this association despite changing conditions.[3] Researchers often find an inverse, stepwise relationship such that for each incremental decrease in SEP, there is a corresponding increase in overall mortality. Even people of mid-range SEP tend to have higher mortality rates than those at the highest SEP.[4]

The health impacts of lower SEP can begin in utero, accumulate over time, and persist throughout the lifespan.[5] In addition to individual SEP, the average level of income and educational attainment at the neighborhood level also influences health.[6] The range of SEPs might also be important.[23]

Because of the strong association of SEP and health, where possible each chapter in *The Health of Washington State, 2007* includes information about health and related risk factors measured by two indicators of SEP, education and income. Each chapter also examines health disparities by race and Hispanic origin, characteristics strongly associated with SEP nationally and in Washington State.

Year 2010 Goals

The two overarching goals in the national *Healthy People 2010* are to increase the quality and years of healthy life and to eliminate health disparities.[7] *Healthy People 2010* states 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.

Many chapters in *The Health of Washington State, 2007* document large disparities by income, education, race, and Hispanic origin in Washington. Thus our state will not meet the goal of eliminating health disparities by 2010, but it might achieve reductions in disparities for some health conditions. As discussed below, eliminating disparities for many diseases and conditions depends on equitable access to socioeconomic resources and opportunities during the critical period from pre-conception through early childhood. Thus, even if change were implemented soon, it might take many years to eliminate health disparities during adulthood.

Explanations for the Relationship Between SEP and Health

Research into the social and economic determinants of health has moved beyond describing and documenting the relationship between SEP and health indicators to testing explanations of how differences in SEP create health disparities. A theoretical framework for understanding the relationship between SEP and health is essential to develop strategies to reduce these disparities.[8] Such frameworks include levels of organization from the individual to the larger physical and social ecosystems.[8,9] Below is a summary of elements suggested for inclusion in a theoretical framework for studying the link between SEP and health.

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.[10] A recent review of studies conducted in a variety of settings concluded that both childhood and adulthood socioeconomic circumstances are important determinants of risk for cardiovascular disease.[11] Parental income and education determine children's housing conditions, food quality, and access to educational opportunity. These factors, in turn, affect future employment prospects and adult SEP. Critical life events, such as transitions from school to job to marriage and childrearing to retirement, require material and emotional resources that people living in lower SEP households might lack.[12] The fetal environment might also be important. 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.[13]

Factors related to lifestyle. Several important behavioral risk factors for poor health are more common among people in lower SEP groups. As subsequent chapters demonstrate, Washington adults with lower incomes or less education are more likely to smoke, be obese, or eat fewer fruits and vegetables than adults with higher incomes and more education. Lack of money and conditions associated with poor neighborhoods can make healthy lifestyles or ways of living difficult to achieve for people in lower SEP groups. (See *Factors related to the physical environment*, below). The broader culture also influences ways of living so that an individual's risk of illness mirrors that of the population group to which he or she belongs. For example, in cultures where smoking is culturally unacceptable for women, women die less often from smoking-related diseases than women in groups where smoking is socially accepted.[14]

Importantly, neither ways of living nor behaviors fully explain differences in health status by SEP. Several studies have found increased mortality among those in lower socioeconomic groups even after taking many behavioral risk factors into account.[15,16]

Factors related to 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. Some research suggests this occurs because health care received by the poor is inferior in quality[17] or because other factors, such as cultural differences, remain as barriers to access.[18] People might also need social resources, such as knowledge, wealth, prestige, and social connections to take advantage of new health-enhancing technologies.[19]

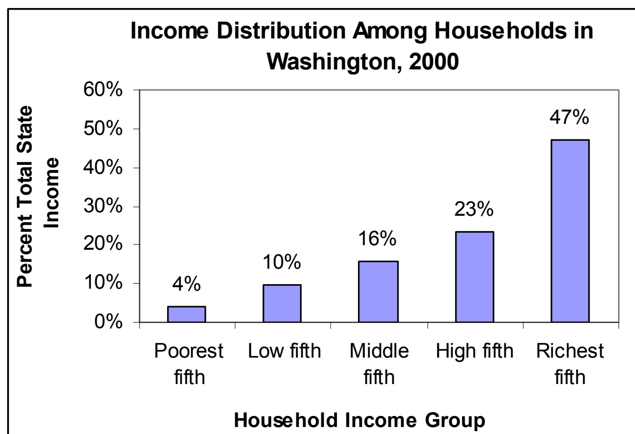
Other studies indicate that better access to medical care alone would not eliminate differences in health by SEP. Even in countries with universal health care, people with low SEP have poorer health.[20]

International comparisons suggest that higher medical expenditures do not necessarily result in better community measures of health, such as life expectancy. This research suggests that broader social and economic conditions that lead to poor health are more important for the health of the population as a whole than medical care once a

person has become sick.[21] Support for this perspective comes from the 2006 *World Health Report*, which shows that the United States ranks first among all 192 member nations in per capita health care expenditures ($5,711 per person per year in 2003 U.S. dollars) but ranks 24th in life expectancy.[22]

Income inequality (relative deprivation). The distribution of wealth in a society often plays a role in health disparities. According to the federal Institute of Medicine, "more egalitarian societies (i.e., those with a smaller gap between rich and poor) have better average health."[23] In many countries, such as the United States and England, when income is unevenly distributed, every drop in income is associated with being in poorer health compared to those at higher income levels.[27]

Income distribution is often studied in terms of quintiles or fifths. If income were evenly distributed across all households in an area, a fifth of all households would receive a fifth of the total income. In 2000, the wealthiest 20% of Washington households received almost 50% of the income, while the poorest 20% received less than 5%.[24]



Another common measure of income inequality is the Gini Coefficient, which varies from 0% to 100%, with larger values indicating greater income inequality.[25] In the United States, income inequality as measured by the Gini index rose from 40% in 1967 to 47% in 2000.[26] A widening gap between rich and poor might adversely affect the health of all members of society. This has been demonstrated in the United States.[27] Greater inequality in income distribution has been linked to disparities in infant mortality,[28] teen birth rates,[29] as well as violence and all-cause mortality.[30]

The impact of the gap between rich and poor goes beyond mere material deprivation for the least advantaged. In a society that places great value on acquisition of material goods and occupational status, relatively lower SEP can lead to feelings of failure and personal inadequacy. Researchers hypothesize that increasing levels of chronic stress due to less control in one's work and personal life combined with feelings of social inferiority may partially explain the successively worse health observed as one descends the social hierarchy.[31]

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. This sense of "belonging" appears to protect good health. Individuals with social support have a reduced risk of mortality from specific diseases and recover more quickly from illness.[32] Some research shows that people of higher SEP have larger networks of social support and higher levels of perceived social support. But the evidence that people of lower SEP have less supportive social relationships is not consistent, especially among women.[33,34]

Social capital. Social capital refers to "the resources imbedded in social relations among people and organizations that facilitate cooperation and collaborations in communities."[35] Because it is an attribute of communities, it differs from social support, which is an individual or family 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.[36] In areas with considerable income inequality, social trust is low, in part because friendship and inequality are not compatible.[37] Friendship includes the concepts of acceptance, appreciation, and reciprocity, while social hierarchy involves dominance and subordination, competition, and social comparison. In communities where most people are social equals, levels of friendship and social trust—hence, social capital—will be relatively high. This might, in part, explain disparities related to unequal income distribution.

Factors related to the physical environment. Low socioeconomic neighborhoods often do not have safe parks and trails that provide opportunities for physical activity. They can also lack access to affordable, healthy foods.[38,39,40,41] In addition, tobacco products and alcohol are marketed more aggressively in low-income communities.[42]

People with lower incomes often live or work in environments where they are exposed to harmful chemicals and other toxins. For example, children who live in older or dilapidated housing can be exposed to indoor allergens and irritants that provoke asthma and increase its severity.[43] Members of lower socioeconomic groups are also more likely to work as manual laborers. These jobs are associated with increased risk of occupational injury or death and exposure to toxic substances.[44] Low socioeconomic neighborhoods are frequently located near toxic waste sites and other potential environmental hazards.[45]

Racial discrimination. "Race" often serves as a rough proxy for social, economic, cultural, and biological factors. In a race-conscious society such as the United States, race classifications might most precisely reflect social classification and capture impacts of racism.[46] A number of recent studies show that those who say they have experienced racism are more likely to have poor mental health and unhealthy lifestyles; they are also somewhat more likely to report poor health status.[47]

Racial discrimination contributes to many factors affecting health including uneven distribution of income, education, neighborhood poverty, and access to health care. Racial discrimination also constitutes a chronic stressor that contributes to poor health independently of these factors. Distinguishing among personally mediated racism, institutionalized racism, and internalized racism might clarify the relationships between racial discrimination and health and help tailor interventions to counteract the impacts these different forms of racism have on health.[46]

Chronic stress. The link between higher levels of stress and decreased physical and mental health is well-established.[48] Chronic stress affects health through both psychological and physiological processes and damages the immune and cardiovascular systems.[21]

The negative health effects of chronic stress accumulate over time. Thus stress from persistent daily struggles might be particularly damaging to health.[49] Sources of daily stress include work overload, competing demands of work and family, less money than needed to meet living expenses, or exposure to noise, pollution, and crime in the daily environment.[49] Individuals of low SEP generally experience these stressors more frequently than those of higher SEP. Chronic feelings of social inferiority, such as those created by racial discrimination, as well as a lack of control over events at work and in one's personal life add to daily stress.[50] In addition, people at relatively low SEP might be particularly vulnerable to stress because they have fewer resources and less effective coping strategies, or because their stressors are qualitatively more potent.[51,52]

Intervention Strategies

Changing social, economic, and cultural determinants of health is complex but achievable. Public health must work with policy makers in a diversity of fields to address poverty, economic inequalities, racial discrimination, childhood deprivation, and work-related stress.[53] Public health can educate policy makers and the public about the evidence linking social and economic conditions to health. With this knowledge, elected officials, other policy makers, and the public can consider effects on health of broad social and economic policies, such as those related to education, housing, and community development. Policy makers and the public will also have a better grasp of the health costs of failing to address these issues. Health researchers have proposed social and economic policy interventions that go beyond anti-poverty programs, such as mobilizing low-SEP voters to participate more fully in civic life and revising the tax structure to redistribute wealth.[54] These approaches have yet to be implemented and evaluated for their effectiveness in reducing health disparities.

In the United States, the U.S. Centers for Disease Control and Prevention convened an independent national task force in the mid-1990s to develop the *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 health.[55] The section on the socio-cultural environment addresses social determinants of health and 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.[55]

The World Health Organization (WHO) launched the WHO Healthy Cities Project in the mid-1980s. This is 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, the project team developed a booklet that identifies ten major social determinants of health, discusses

research on these determinants, and suggests specific policies for both local and national governments.[21] Several community-based interventions that address topics covered in the booklet show promise in reducing health disparities related to SEP. These include projects to improve access to safe housing,[56] increase local access to healthy foods,[57] decrease racism,[58] foster community empowerment,[59] and improve early childhood education.[60] These projects will require long-term follow-up to evaluate their effectiveness in achieving health impacts. Recommendations from the WHO Healthy Cities Project might be useful in addressing similar problems in the nation and in Washington State.

In 2006, the National Association of County and City Health Officials (NACCHO) published *Tackling Health Inequities Through Public Health Practice.*[61] The document is a compendium that defines the role of public health in addressing the social determinants of health, and it describes the experiences of local public health professionals in "transforming everyday public health practice, departmental structure, and organizational culture in ways that might advance the attack on the root causes of inequities in the distribution of disease and illness." For example, health officials in Ingham County, Michigan, describe a nine-month dialogue that resulted in a strategic plan to address social determinants through policy reform, public education campaigns on issues of health equity, community empowerment and mobilization, partnerships for social justice, and public work force mobilization. While the effectiveness of this and other strategies described in the NACCHO guide still need to be evaluated, they describe accumulated experience on how to address social determinants related to disparities in health at the local level.

The Washington Legislature's passage of Substitute Senate Bill 6197 in 2006 is an example of our state's effort to reduce health disparities. This legislation created a governor's interagency council on health disparities, charged with conducting health impact reviews to determine the extent to which proposed legislative or budgetary actions improve or exacerbate disparities in health. The interagency council is also required to develop an action plan to develop policies and strategies that address social factors driving health disparities. Researchers have not evaluated the effectiveness of this approach.

Changes in 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: Mortality and Life Expectancy and Self-reported Health Status**.**

For More Information

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

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

Technical Notes

For methods used to calculate income distribution in Washington, see the Technical Appendix C of *Diabetes Disparities in Washington State, 2006.* For details of this method please contact the Washington State Department of Health Diabetes Program at (360) 236-3842.

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