Social Determinants of Health

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Section 1: What are the social determinants of health?
Healthy People 2020
Social Determinants of Health

SDOH

Neighborhood and Built Environment
Economic Stability
Health and Health Care
Education
Social and Community Context

NEIGHBORHOOD AND BUILT ENVIRONMENT

- Quality of Housing
- Crime and Violence
- Environmental Conditions
- Access to Healthy Foods
HEALTH AND HEALTHCARE

• Access to Health services—including clinical and preventive care

• Access to Primary Care—including community-based health promotion and wellness programs

• Health Technology
SOCIAL AND COMMUNITY CONTEXT

• Family Structure

• Social Cohesion

• Perceptions of Discrimination and Equity

• Civic Participation

• Incarceration/Institutionalization
EDUCATION

• High School Graduation Rates

• School Policies that Support Health Promotion

• School Environments that are Safe and Conducive to Learning

• Enrollment in Higher Education
ECONOMIC STABILITY

• Poverty

• Employment Status

• Access to Employment

• Housing Stability (e.g., homelessness, foreclosure)
How do social determinants impact population health?
Child Mortality Rate Worldwide

THE WORST PLACES IN THE WORLD TO BE A KID

Child mortality refers to under-5 mortality, which is the death of infants and children under the age of five, per one thousand live births.

HIGHEST CHILD MORTALITY RATES
1. Afghanistan
2. Sierra Leone
3. Chad
4. Equatorial Guinea
5. Guinea-Bissau
6. Mali
7. Burkina Faso
8. Nigeria
9. Rwanda
10. Burundi

LOWEST CHILD MORTALITY RATES
1. Iceland
2. Andorra
3. Liechtenstein
4. Luxembourg
5. Singapore
6. Sweden
7. Austria
8. Czech Republic
9. Denmark
10. Finland

QUICK FACTS
- About 20 million children die every year, very often from preventable causes.
- In 2008, 8.8 million children under five died, down from 9.2 million in 2007, and 12.7 million in 1990.
- According to UNICEF, one million child deaths could be prevented annually at a cost of $US 1 billion per year. (an average of $US 1000 for each child)

WORLD BANK, WORLD DEVELOPMENT INDICATORS

http://filspagnoli.files.wordpress.com/2008/10/world-child-mortality-rate.jpg
Life Expectancy by GDP Worldwide

Source: http://www.gapminder.org/world/
Health disparities are visible even within specific countries.
Inequalities in Mortality Rates in the United Kingdom in 1971 among Persons aged 15 to 64

Why are these data compelling?

- Differences in mortality were observed across the entire socioeconomic gradient.
- National health insurance did not eliminate the gradient.
- These civil servants were followed long-term. Status in mid-life predicted late-life health.

*Does this apply in the United States?*
Health Disparities

Differences in health and longevity are apparent by race as well as income and other measures of socioeconomic status.

• Race: In the U.S., black men live on average 6 years less than white men

• Education: In the U.S., adults who did not graduate from high school can expect to live ~7 years less than people with more education
# Infant Mortality Rates for Mothers Age 20+, by Race/Ethnicity and Education, 2003-2005

Infant deaths per 1,000 live births:

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Less than High School</th>
<th>High School</th>
<th>College+</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American, Non-Hispanic</td>
<td>15.1</td>
<td>13.9</td>
<td>11.5</td>
</tr>
<tr>
<td>American Indian/Alaska Native</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White, Non-Hispanic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian and Native Hawaiian/Pacific Islander</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>10.1</td>
<td>8.2</td>
<td>6.5</td>
</tr>
<tr>
<td></td>
<td>9.1</td>
<td>6.6</td>
<td>4.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5.8</td>
<td>3.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5.4</td>
<td>4.7</td>
</tr>
</tbody>
</table>

NOTES: Data reported for 37 states, DC, and NYC.
SOURCE: Health, United States, 2008, Table 19.
Number of Reported Chronic Conditions According to Socioeconomic Status

Risk Factors According to Education Status

Scientists have settled on an oddly subjective explanation: the more helpless one feels when facing a given stressor, they argue, the more toxic that stressor’s effects.
That sense of control tends to decline as one descends the socioeconomic ladder, with potentially grave consequences. Those on the bottom are more than three times as likely to die prematurely than those at the top. They’re also more likely to suffer from depression, heart disease and diabetes.
It is critical to track these disparities in health to understand who is at greatest risk, and it is important to ask:

Why do the conditions for health vary so much from place to place and across population groups?
The conditions for health are established in our policies—not just in health policy, but also in policies regarding the funding of schools, the provision of price supports for certain foods and not others, and the marketing of foods and tobacco, for example. The social determinants of health are deeply intertwined with Our policies and programs on a national level, on a local level—and even closer to home in our schools and workplaces.
Many Healthy People 2020 objectives relate to social determinants of health.

Consider the role of school environments and school policies.
School policies and environments as social determinants of health

Objective: Increase the proportion of schools with a school breakfast program

<table>
<thead>
<tr>
<th>Baseline:</th>
<th>68.6 percent of schools overall, including public and private elementary, middle, and high schools, had a school breakfast program in 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target:</td>
<td>75.5 percent</td>
</tr>
<tr>
<td>Target-Setting Method:</td>
<td>10 percent improvement</td>
</tr>
<tr>
<td>Data Source:</td>
<td>School Health Policies and Practices Study (SHP(HPS), CDC/NCHHSTP</td>
</tr>
</tbody>
</table>
School policies and environments as social determinants of health

Objective: Increase the proportion of adolescents whose parents consider them to be safe at school

<table>
<thead>
<tr>
<th>Baseline:</th>
<th>86.4 percent of adolescents aged 12 to 17 years had parents who reported that they felt their child was usually or always safe at school, as reported in 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target:</td>
<td>95.0 percent</td>
</tr>
<tr>
<td>Target-Setting Method:</td>
<td>10 percent improvement</td>
</tr>
<tr>
<td>Data Source:</td>
<td>National Survey of Children's Health (NSCH), CDC and HRSA/MCH</td>
</tr>
</tbody>
</table>
School policies and environments as social determinants of health

Objective: Increase the proportion of the nation’s public and private schools that require daily physical education for all students

<table>
<thead>
<tr>
<th>Baseline:</th>
<th>3.8 percent of public and private elementary schools required daily physical education for all students in 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target:</td>
<td>4.2 percent</td>
</tr>
<tr>
<td>Target-Setting Method:</td>
<td>10 percent improvement</td>
</tr>
<tr>
<td>Data Source:</td>
<td>School Health Policies and Practices Study (SHPPS), CDC/NCHHSTP</td>
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</tbody>
</table>
Section 2: Employment, material resources and health
ECONOMIC STABILITY

- Poverty
- Employment Status
- Access to Employment
- Housing Stability (e.g., homelessness, foreclosure)
Is unemployment a threat to health?

- Suicide 40x more common in young men unemployed > 6 months (Wessely, 2004)
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- Health risk may be comparable to that from “killer diseases” (Waddell & Aylward, 2005)
- Being unemployed may be as dangerous as certain high-risk professions.

Source: M. Aylward, No one written off: reforming welfare to reward Responsibility.
Unemployment may exert a negative influence on health by reducing access to needed material resources.
The recent wave of mortgage foreclosures offers a case study on the social determinants of health.

Source: http://wwwsocketsitecom/archives200804perspective_on_california_foreclosures_and_the_housing.html
Areas most affected by the foreclosure crisis

By Catherine Rampell
Source: NYTimes, March 2, 2009
Foreclosure:
Mary Ann Herrera at her home in San Antonio, Monday, Feb. 23, 2009. Under the threat of foreclosure, Herrara asked her brother to paint the words "Help!!" and "Foreclosure!!" on her home recently in the hopes of receiving assistance. (AP Photo/Eric Gay)
Foreclosure Rallies: Carmen Ruiz, whose home is under foreclosure, listens as supporters of Acorn, Association of Community Organizations for Reform Now, protest outside a home under foreclosure in South San Francisco, Tuesday, Nov. 25, 2008. Several rallies in Northern California were planned on Tuesday calling for lawmakers to help on a moratorium of foreclosures. (AP Photo/Paul Sakuma)
Homeowners in default or foreclosure often reported low levels of overall health.

Source: “Economic strain and poor health: associations between housing foreclosure and health”
Prevalence of serious psychological distress by housing status

Source: “Economic strain and poor health: associations between housing foreclosure and health”
Mental health impairment is common among homeowners in foreclosure.

- 13X higher prevalence of serious psychological distress in the foreclosure group, after adjustment
- Physical symptoms far more common in foreclosure group.
- Few respondents cited health costs as the major reason for foreclosure.
- But many reported foregone health care.
Relative Odds of Incident Depressive Symptoms, Health Declines, Food Insecurity, and Cost-Related Medication Nonadherence by Mortgage Delinquency Status

<table>
<thead>
<tr>
<th>Health Measure</th>
<th>Times more likely than in non-mortgage-delinquent</th>
</tr>
</thead>
<tbody>
<tr>
<td>New onset of elevated depressive symptoms</td>
<td>8.60</td>
</tr>
<tr>
<td>Major decline in self-rated health</td>
<td>1.39</td>
</tr>
<tr>
<td>New onset of food insecurity</td>
<td>7.53</td>
</tr>
<tr>
<td>New onset of cost-related medication nonadherence</td>
<td>8.66</td>
</tr>
</tbody>
</table>

The Garza family has been living since October in the Costa Mesa Inn, where 9-year-old Celine Shares a bed with two younger brothers, toys and schoolbooks piled on the floor.

Photographer/ Source: Monica Almeida/The New York Times, From the article “As Jobs Vanish, Motel Rooms Become Home”, Author: Erik Eckholm; March 10, 2009