Health Equity & the Social Determinants of Health

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35th Annual Cardiology Conference
Sioux City, IA
October 16, 2019
Prevention Research Center for Rural Health

https://prc.public-health.uiowa.edu/
Quick Poll

- Who has heard of the social determinants of health?
Quick Poll

• Who has heard of the social determinants of health?
• Who feels confident to explain it?
Quick Poll

• Who has heard of the social determinants of health?

• Who feels confident to explain it to their mother?
Quick Poll

• Who has heard of the social determinants of health?
• Who feels confident to explain it to their mother?
• Who has addressed social determinants in their practice?
Learning Objectives

• Define health equity and the social determinants of health
• Explain a conceptual model of the social determinants of health
• Identify potential pathways shaping health outcomes
Many Determinants of Health

Social determinants of health

Healthy People 2020

“Social determinants of health are conditions… in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.”

https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health
A Simple Conceptual Model

Key point: nested influences on health
WHO Conceptual Model

Key point: pathways to health

Figure 4.1 Commission on Social Determinants of Health conceptual framework.

SOCIAL DETERMINANTS OF HEALTH AND HEALTH INEQUITIES

https://www.who.int/social_determinants/en/
A Practical Model

Drivers of the conditions of life:
- Political economy of health, power, and policies
  - Actions of industries and corporations
  - Race/ethnic- and class-based organization of society
  - Government policies

The conditions of life, how we:
- Live (economic resources, housing & neighborhood quality)
- Eat (amount & quality of food available)
- Work (job conditions, both physical & psychological)
- Get from place to place (ease of biking, walking, public & private transportation)

Health outcomes:
- Injury
- Disease
- Premature death

Social Determinants of CVD

Broad Conclusions

• Insufficient evidence for a specific combination of factors…

• But evidence around actionable social domains
  • Food insecurity
  • Housing instability
  • Difficulties with transportation
  • Paying bills
Recommendations

“Social determinants of health should be incorporated into shared decision-making to optimize preventive care”

<table>
<thead>
<tr>
<th>Topic/Domain</th>
<th>Example Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiovascular risk</td>
<td>• Adults should be routinely assessed for psychosocial stressors and provided with appropriate counseling.</td>
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<tr>
<td></td>
<td>• Health literacy should be assessed every 4 to 6 y to maximize recommendation effectiveness.</td>
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<tr>
<td>Diet</td>
<td>• In addition to the prescription of diet modifications, body size perception, as well as social and cultural influences, should be assessed.</td>
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<tr>
<td></td>
<td>• Potential barriers to adhering to a heart-healthy diet should be assessed, including food access and economic factors; these factors may be particularly relevant to persons from vulnerable populations, such as individuals residing in either inner-city or rural environments, those at socioeconomic disadvantage, and those of advanced age*.</td>
</tr>
<tr>
<td>Exercise and physical activity</td>
<td>• In addition to the prescription of exercise, neighborhood environment and access to facilities for physical activity should be assessed.</td>
</tr>
<tr>
<td>Obesity and weight loss</td>
<td>• Lifestyle counseling for weight loss should include assessment of and interventional recommendations for psychosocial stressors, sleep hygiene, and other individualized barriers.</td>
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<tr>
<td></td>
<td>• Weight maintenance should be promoted in patients with overweight/obesity who are unable to achieve recommended weight loss.</td>
</tr>
</tbody>
</table>
Table 2. Example Considerations for Addressing Social Determinants of Health to Help Prevent ASCVD (cont’d)

<table>
<thead>
<tr>
<th>Topic/Domain</th>
<th>Example Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes mellitus</td>
<td>• In addition to the prescription of type 2 diabetes mellitus interventions, environmental and psychosocial factors, including depression, stress, self-efficacy, and social support, should be assessed to improve achievement of glycemic control and adherence to treatment.</td>
</tr>
<tr>
<td>High blood pressure</td>
<td>• Short sleep duration (&lt;6 h) and poor-quality sleep are associated with high blood pressure and should be considered. Because other lifestyle habits can impact blood pressure, access to a healthy, low-sodium diet and viable exercise options should also be considered.</td>
</tr>
<tr>
<td>Tobacco treatment</td>
<td>• Social support is another potential determinant of tobacco use. Therefore, in adults who use tobacco, assistance and arrangement for individualized and group social support counseling are recommended.</td>
</tr>
</tbody>
</table>
Social Prescribing

Connecting patients to non-medical services to improve health

• Screening for social needs
• Referrals to community-based services
• Supporting access to relevant services
A 71-year-old man presents to your clinic for a wellness visit. He is healthy except for knee osteoarthritis and hypertension for which he takes hydrochlorothiazide daily and acetaminophen as needed. His wife of 35 years passed away last year. They did not have children and he has few friends in town. Besides going shopping once a week, he does no other activities. He was a former truck driver, does not smoke, and drinks approximately 4 beers a week. He does not exercise. He has no history of depression and denies feeling sad or hopeless. His physical examination reveals a BP of 142/74, BMI 32.

Which of the following risk factors has been shown to be more strongly associated with mortality than hypertension?

a) Physical inactivity
b) Alcohol use
c) Obesity
d) Social isolation
A 52-year-old man with diabetes, hypertension, hyperlipidemia, and COPD presents to your clinic for a routine visit. He takes 6 medications in addition to 2 inhalers. He lives with his wife who is disabled from a motor vehicle accident, and they have 2 children in high school. He has smoked 1 pack per day for the past 25 years, but does not drink alcohol. He is working for a small manufacturing company for almost 20 years, but with the weak economy, he constantly fears losing his job. His diabetes and hypertension are well-controlled. Your major concern for this visit is his continued tobacco use. Repeated efforts to quit smoking by using nicotine gum, patches, and bupropion have not been successful. He says, “all the guys at work smoke and it’s hard to be the only guy not doing it.”

Which factor listed below would most likely increase his ability to stop smoking?

a) Educational materials on how to quit smoking
b) Acupuncture and hypnosis therapy
c) Long-term use of nicotine replacement therapy
d) A smoke-free workplace
More Clinical Scenarios

https://www.sgim.org/web-only/social-determinants-of-health
Health Equity

“The attainment of the highest level of health for all people.”

Ensuring maximum opportunities for good health

https://www.healthypeople.gov/2020/about/foundation-health-measures/Disparities
An Illustration
Another Illustration
A Practical Model

More Opportunities for Action

Drivers of the conditions of life:
- Political economy of health, power, and policies
- Actions of industries and corporations
- Race/ethnic- and class-based organization of society
- Government policies

The conditions of life, how we:
- Live (economic resources, housing & neighborhood quality)
- Eat (amount & quality of food available)
- Work (job conditions, both physical & psychological)
- Get from place to place (ease of biking, walking, public & private transportation)

Health outcomes:
- Injury
- Disease
- Premature death
Use the Power of your White Coat!
Social Determinants of Health

Four-Year High School Graduation Rates 2016-2017

<table>
<thead>
<tr>
<th>Dropout Rate</th>
<th>Dropout Rate Rank</th>
<th>Graduation Rate</th>
<th>Graduation Rate Rank</th>
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<tr>
<td>3.2%</td>
<td>18.3</td>
<td>83.7%</td>
<td>81.3</td>
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High School Dropout Rates 2016-2017

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<tr>
<th>Dropout Rate</th>
<th>Dropout Rate Rank</th>
<th>Dropout Rate Rank</th>
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<tbody>
<tr>
<td>3.0%</td>
<td>2.5</td>
<td>2.5</td>
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Poverty Levels 2017

<table>
<thead>
<tr>
<th>Percent</th>
<th>Percent Rank</th>
<th>Margin of Error</th>
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<tr>
<td>15.4%</td>
<td>17</td>
<td>2.6</td>
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# Health Outcomes

## County Demographics

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<tr>
<th>Rank</th>
<th>County</th>
<th>Woodbury County</th>
<th>Trend</th>
<th>Error Margin</th>
<th>Top U.S. Performers</th>
<th>Iowa</th>
<th>Rank (of 99)</th>
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<tr>
<td>1</td>
<td>Cedar (CE)</td>
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<td>2</td>
<td>Dallas (DA)</td>
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<td>3</td>
<td>Bramer (BR)</td>
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<td>4</td>
<td>Sioux (SI)</td>
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<td>5</td>
<td>Winneshiek (WN)</td>
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<td>Grundy (GU)</td>
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<td>Johnson (JO)</td>
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<td>19</td>
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<td>20</td>
<td>Marion (MR)</td>
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<td>21</td>
<td>Buchanan (BU)</td>
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## Health Outcomes

- **Health Outcomes**: 81
- **Length of Life**: 69
- **Premature death**: 7,000, 6,400-7,500, 5,400, 6,200
- **Quality of Life**: 92
- **Poor or fair health**: 16%, 15.1%-16%, 12%, 13%
- **Poor physical health days**: 3.4, 3.2-3.5, 3.0, 2.9
- **Poor mental health days**: 3.4, 3.2-3.5, 3.1, 3.3
- **Low birthweight**: 7%, 6.7%, 6%, 7%

## Additional Health Outcomes (not included in overall ranking)

- **Health Factors**: 90
- **Health Behaviors**: 91

### Health Factors

- **Adult smoking**: 17%, 16-17%, 14%, 17%
- **Adult obesity**: 35%, 32-40%, 26%, 32%
- **Food environment index**: 7.9, 8.7, 8.2
- **Physical inactivity**: 26%, 23-30%, 19%, 23%
Additional Resource

https://www.unnaturalcauses.org/resources.php
Learning Objectives

• Define health equity and the social determinants of health
• Explain a conceptual model of the social determinants of health
• Identify potential pathways shaping health outcomes
Additional Recommendations

- Assess social determinants of health in clinical encounters
- Practice social prescribing
- Use the power of your white coat beyond the clinic
Contact Information

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