Understanding the Social Determinants of Health: A New Era for Health Care Professionals

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Presenter Disclosure Information

In compliance with the accrediting board policies, the American Diabetes Association requires the following disclosure to the participants:

Felicia Hill-Briggs, PhD

Disclosed no conflict of interest.

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Overview

I. Defining Social Determinants of Health (SDOH)
II. Examples of SDOH and Diabetes Health Inequities
III. Recommendations for Addressing SDOH from Global and National Committees
IV. What Can Health Care Professionals Do?
   • Intervention Types and an Evolving Framework

Defining Social Determinants of Health (SDOH)

The social determinants of health are the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. These forces and systems include economic policies and systems, development agendas, social norms, social policies and political systems.

-World Health Organization (WHO)
http://www.who.int/social_determinants/en/
Related Phenomena

Socioeconomic Status or Class

Socioeconomic status is the social standing or class of an individual or group. It is often measured as a combination of education, income and occupation. Examinations of socioeconomic status often reveal inequities in access to resources, plus issues related to privilege, power and control.

-American Psychological Association

A type of difference in health that is closely linked with social or economic disadvantage. Health disparities negatively affect groups of people who have systematically experienced greater social or economic obstacles to health. These obstacles stem from characteristics historically linked to discrimination or exclusion such as race or ethnicity, religion, socioeconomic status, gender, mental health, sexual orientation, or geographic location. Other characteristics include cognitive, sensory, or physical disability differences.

-U.S. Dept. of Health and Human Services

Health Disparities

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Social Determinants of Health

Socioeconomic Status or Class

Health Disparities

Cycle of Social Determinants

Literacy, Health Literacy
Educational Attainment (Quantity)
Educational Achievement (Quality)

Education

Occupation

Socioeconomic Status

Household Income
Poverty Status
Economic insecurity

Housing, Built Environment
Food Deserts
Access (e.g. education, health care)
Environmental Exposures

Income

Neighborhood/Residence

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Examples of SDOH, Diabetes, and African Americans as a Case Example

Diabetes Disparities and African Americans

African Americans with diabetes, as compared to their white counterparts with diabetes have:

- 1.8 times higher prevalence of diabetes
- 2.1 times higher rate of mortality due to diabetes
- 3.5 times higher rate of lower extremity amputation
- 4.2 times higher rate of ESRD from diabetes

Centers for Disease Control and Prevention, 2016
Education SDOH and African Americans

<table>
<thead>
<tr>
<th></th>
<th>Blacks</th>
<th>Whites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational Attainment (Quantity)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school or more, %</td>
<td>87.0</td>
<td>93.3</td>
</tr>
<tr>
<td>Bachelor’s degree, %</td>
<td>22.5</td>
<td>36.2</td>
</tr>
<tr>
<td>Advanced degree, %</td>
<td>8.2</td>
<td>13.5</td>
</tr>
<tr>
<td>Educational Achievement (Quality)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proficient Literacy</td>
<td>2%</td>
<td>17%</td>
</tr>
<tr>
<td>Basic or Below Basic Literacy</td>
<td>67%</td>
<td>32%</td>
</tr>
</tbody>
</table>

- U.S. State Anti-Literacy Laws, which prohibited African Americans from learning to read or write, or assembling for purposes of teaching or education, persisted into the 1900’s.

2016 U.S. Census; 2003 National Assessment of Adult Literacy

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Prevalence of Diabetes By Years of Education

- CDC, National Diabetes Statistics Report, 2017

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### Occupation SDOH and African Americans 2017 - 2018

<table>
<thead>
<tr>
<th></th>
<th>Blacks</th>
<th>Whites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployment rate, %</td>
<td>7.5</td>
<td>3.8</td>
</tr>
<tr>
<td>Among management, professional, and related occupations</td>
<td>9.4</td>
<td>80.0</td>
</tr>
<tr>
<td>Janitors, building cleaners</td>
<td>18.6</td>
<td>72.5</td>
</tr>
<tr>
<td>Baggage porters, bellhops</td>
<td>24.9</td>
<td>60.1</td>
</tr>
<tr>
<td>Means of transportation to work: Public transportation, %</td>
<td>10.6</td>
<td>3.1</td>
</tr>
</tbody>
</table>

- Pay inequities based on gender in the U.S. exist based on race/ethnicity. For equal work, African-American men and women receive less pay than their white counterparts.


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### Income, Economic Stability as SDOH and African Americans, 2016

<table>
<thead>
<tr>
<th></th>
<th>Blacks</th>
<th>Whites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median household income</td>
<td>$38,555</td>
<td>$63,155</td>
</tr>
<tr>
<td>Population living below poverty, %</td>
<td>23.9</td>
<td>10.0</td>
</tr>
<tr>
<td>Among persons living 125% below the poverty line, %</td>
<td>30.3</td>
<td>13.3</td>
</tr>
<tr>
<td>Median Wealth, 2010 Dollars</td>
<td>$13,229</td>
<td>$312,291</td>
</tr>
</tbody>
</table>

National Urban League, 2018 State of Black America (U.S. Census, American Community Survey data)

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Prevalence of Diabetes By Income/Poverty Level Status

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>&lt;100% FPL</th>
<th>100–199% FPL</th>
<th>200–299% FPL</th>
<th>300–399% FPL</th>
<th>≥400% FPL</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>25</td>
<td>30</td>
</tr>
<tr>
<td>Black</td>
<td>15</td>
<td>20</td>
<td>25</td>
<td>30</td>
<td>35</td>
</tr>
<tr>
<td>Mexican American</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>25</td>
<td>30</td>
</tr>
<tr>
<td>White</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>25</td>
</tr>
</tbody>
</table>


Neighborhood, Residence as SDOH and African Americans

<table>
<thead>
<tr>
<th></th>
<th>Blacks</th>
<th>Whites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Among persons living in high poverty neighborhoods/census tracts, %</td>
<td>25</td>
<td>4</td>
</tr>
<tr>
<td>Among persons living in extreme poverty neighborhoods/census tracts, %</td>
<td>40</td>
<td>28</td>
</tr>
<tr>
<td>Home ownership rate, %</td>
<td>41.6</td>
<td>71.9</td>
</tr>
<tr>
<td>Mortgage applications denied rate, %</td>
<td>26.5</td>
<td>9.2</td>
</tr>
</tbody>
</table>

National Urban League, 2018 State of Black America (U.S. Census, American Community Survey data)
Recommendations for Intervention from Global and National Committees
World Health Organization Commission on SDOH
http://www.who.int/social_determinants/thecommission/finalreport/en/

1. **Improve Daily Living Conditions**
   Put major emphasis on early child development and education. Improve living and working conditions. Create social protection policy that is supportive of all.

2. **Tackle the Inequitable Distribution of Power, Money, and Resources**
   Create a strong public sector that is committed, capable, and adequately financed. Ensure legitimacy, space, and support for civil society, for an accountable private sector, and for the public to agree to reinvestment in collective action.

3. **Measure and Understand the Problem and Assess the Impact of Action**
   Acknowledge there is a problem. Ensure that health inequity is measured. Develop national and global health equity surveillance systems. Evaluate the health equity impact of policy and action.

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**IOM Recommendations: Measures for EMRs, 2014**
https://www.nap.edu/catalog/21923/a-framework-for-educating-health-professionals-to-address-the-social-determinants-of-health

<table>
<thead>
<tr>
<th>Domain</th>
<th>Measure</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race or ethnic group†</td>
<td>1. What is your race?</td>
<td>At entry</td>
</tr>
<tr>
<td></td>
<td>2. Are you of Hispanic, Latino, or Spanish origin?</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>1. What is the highest level of school you have completed?</td>
<td>At entry</td>
</tr>
<tr>
<td></td>
<td>2. What is the highest degree you earned?</td>
<td></td>
</tr>
<tr>
<td>Financial-resource strain</td>
<td>How hard is it for you to pay for the very basics like food, housing, medical care, and heat?</td>
<td>Screen and follow up</td>
</tr>
<tr>
<td>Stress</td>
<td>Stress means a situation in which a person feels tense, restless, nervous, or anxious, or is unable to sleep at night because his or her mind is troubled all the time. Do you feel this kind of stress these days?</td>
<td>Screen and follow up</td>
</tr>
<tr>
<td>Depression</td>
<td>Over the past 2 weeks, how often have you been bothered by</td>
<td>Screen and follow up</td>
</tr>
<tr>
<td></td>
<td>1. Little interest or pleasure in doing things?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Feeling down, depressed, or hopeless?</td>
<td></td>
</tr>
<tr>
<td>Physical activity</td>
<td>1. On average, how many days per week do you engage in moderate to strenuous exercise (like walking fast, running, jogging, dancing, swimming, biking, or other activities that cause a light or heavy sweat)?</td>
<td>Screen and follow up</td>
</tr>
<tr>
<td></td>
<td>2. On average, how many minutes do you engage in exercise at this level?</td>
<td></td>
</tr>
</tbody>
</table>

IOM Committee on Educating Health Professionals to Address the Social Determinants of Health, 2016

1. Understand and address community-identified needs and strengthen community assets.

2. Partner with communities to increase the inclusivity and diversity of the health professional student body and faculty.

3. Foster an enabling environment that supports and values the integration of the SDOH framework principles into their mission, culture, and work.

4. Conduct evaluation research aimed at identifying and illustrating effective approaches for learning about the SDOH in and with communities while improving health outcomes.

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CMS Equity Plan for Medicare, 2015

Six Priorities:

1. Expand the collection, reporting, and analysis of standardized data
2. Evaluate disparities impacts and integrate equity solutions across CMS programs
3. Develop and disseminate promising approaches to reduce health disparities
4. Increase the ability of the health care workforce to meet the needs of vulnerable populations
5. Improve communication and language access for individuals with limited English proficiency and persons with disabilities
6. Increase physical accessibility of health care facilities


Evolving Intervention Framework

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Equity (Current Practice Focus)

Individuals are given different supports to make it possible for them to have equal access to the game. They are being treated equitably.

Systemic Barrier Removal/Root Cause (Future?)

All three can see the game without any supports or accommodations because the cause of the inequity was addressed. The systemic barrier has been removed.

Types of Interventions

**Support and Compensatory Approaches**

- Literacy Adaptations (<5th grade readability), 2010 Plain Language Act
- Provider referrals for community navigation back to communities for resources and social service needs
- Community Health Worker (CHW) interventions
- Church and other community center partnerships with grocery stores for delivery to overcome food deserts
- Transportation/ride share interventions to increase access to resources outside of underserved communities

Evidence for Supportive and Compensatory Approaches in Diabetes


*Limitation: Generally, only individuals intervened upon directly benefit, and only for as long as the intervention is occurring.

Nationally Available Tools for Providers

<table>
<thead>
<tr>
<th>Tool</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>211</td>
<td>A service of the United Way that continuously identifies links for all “211” health and human services referral services in the U.S.</td>
</tr>
<tr>
<td>Aunt Bertha</td>
<td>A for-profit organization that provides links to hundreds of programs serving every U.S. ZIP code. Basic use is free, with advanced collaboration features available at various price points.</td>
</tr>
<tr>
<td>Healthify</td>
<td>A for-profit offering database, EHR integration, assessment tool and analytics.</td>
</tr>
<tr>
<td>HealthLeads</td>
<td>A nonprofit offering tools, training and resources for integrating SDOH into accountable care.</td>
</tr>
</tbody>
</table>

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Accountable Health Communities

“Most clinicians are familiar with the stories behind the[se] statistics: the child with asthma whose substandard housing triggers repeated emergency department visits; the patient with repeated visits for severe abdominal pain caused by her violent home life; the older adult with diabetes forced to choose between paying for heat and buying groceries. But in our current system, patients’ health-related social needs frequently remain undetected and unaddressed. Despite calls for obtaining an expanded social history at the point of care, most health care systems lack the infrastructure and incentives to develop comprehensive, systematic screening-and-referral protocols and relationships with the array of community service providers that would be required to address their patients’ health-related social needs.”


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### Accountable Health Communities (cont’d)

<table>
<thead>
<tr>
<th>Track</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Track 1. Awareness</td>
<td>Will increasing awareness of community services through information dissemination (inventory of community services) and referral reduce health care costs?</td>
</tr>
<tr>
<td>Track 2. Assistance</td>
<td>Will providing community service navigation to assist beneficiaries (Medicaid, Medicare) with overcoming barriers to access to services reduce health care costs?</td>
</tr>
<tr>
<td>Track 3. Alignment</td>
<td>Will a combination of navigation to community services (at the individual beneficiary level) and partner alignment at the community level reduce health care costs?</td>
</tr>
</tbody>
</table>

Types of Interventions

“Thus, to be effective and sustainable, interventions that aim to redress inequities must typically go beyond remedying a particular health inequality and help empower the group in question through systemic changes.” -WHO

http://www.who.int/healthsystems/topics/equity/en/

All three can see the game without any supports or accommodations because the cause of the inequity was addressed. The systemic barrier has been removed.

U.S. Department of Health and Human Services: Healthy People 2020

The social determinants of health (SDOH) topic area is designed to identify ways to create social and physical environments that promote good health for all. The Healthy People 2020 Approach is based on five (5) key areas of social determinants of health:

https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health
Multisector Partnerships

- Solve resident and neighborhood challenges through real estate that is:
  - Mixed income and affordable
  - Catalytic
  - Sustainable, high-quality, designed for the neighborhood

Avondale CHOICE Resident and Neighborhood Success Metrics

Resource building and partnerships will catalyze improved outcomes in health, educational achievement, income growth and financial understanding:

- Increase personal health of residents (e.g. via access to care other than ED, access to food)
- 75% of children ages 0-6 will be enrolled in quality early education programs
- 60% of young adults ages 16-25 are on a path to independence through enrollment in school, post-secondary education, armed services, or employment
- TCB engagement and resource building increases the number of households securing earned income by 5% each year
- 50% of TCB residents have bank accounts, debit cards, or matched savings accounts
- One-third of TCB family properties offer Volunteer Income Tax Assistance (VITA) no charge tax preparation, ensuring eligible residents receive Earned Income Tax Credit or other applicable benefits
- 80% of eligible residents will be registered to vote

Adapted from: The Community Builders, Inc. All Rights Reserved. Used with Permission.
Avondale Choice Community Data Dashboard

Avondale Choice Community Data: Health Indicators

Increase personal health of residents
- Target: 10% increase
- Indicator: Self-Reported Health Rating
- Indicator: Self-Reported Stress Level
- Indicator: Access to Healthy Food
- Indicator: Reported Chronic Health Conditions

Increase number of residents that have access to Health coverage other than the Emergency Room
- Target: 10% increase
- Indicator: Self-Reported Health Insurance Status
- Indicator: Self-Reported Health Insurance Type
- Indicator: Medical Home
- Indicator: Reporting of Preventive Care

http://www.avondalechoicedata.com/health-choice-data/
Cincinnati Partnership Selected to Participate in Nationwide 'Build Health Challenge'
Two-year grant brings together community organizations to improve neighborhood health

CINCINNATI – The Avondale Children Thrive initiative has been selected by a coalition of 12 funding organizations to participate in the BUILD Health Challenge, a national program that puts multi-sector community partnerships at the foundation of improving health for everyone. The Cincinnati-specific project will focus on maternal and child health and serve residents in the Avondale neighborhood. Avondale Children Thrive is one of 19 partnerships selected to participate. BUILD awards funding, capacity building support, and access to a national peer-learning network. The program emphasizes cross-sector collaboration among local non-profit organizations, hospitals, and public health departments to address upstream conditions that create opportunities for better health. BUILD selected Avondale Children Thrive because of its Bold, Upstream, Integrated, Local, and Data-driven (BUILD) ideas to improve the health of its residents.

BUILD seeks to create a new norm in the U.S. by addressing upstream factors affecting health. It is supported by a unique collaborative of local and national funders, which includes the Advisory Board Company, The Blue Cross and Blue Shield of North Carolina Foundation, the Colorado Health Foundation, the de Beaumont Foundation, The Episcopal Health Foundation, Interact for Health, The Kresge Foundation, Mid-Iowa Health Foundation, New Jersey Health Initiatives, the Robert Wood Johnson Foundation, Telligen Community Initiative, and The W.K. Kellogg Foundation.

Community Benefit Dollars for Upstream Interventions on SDOH

Health Policy Brief

Nonprofit Hospitals’ Community Benefit Requirements. Under the Affordable Care Act, many nonprofit hospitals must meet new requirements to retain their tax-exempt status.
Take Home Points

1. SDOH, the largest contributor to health disparities, are systemic and include upstream factors of education, occupation, income, and neighborhood.

2. International recommendations for addressing social determinants are focused on macro-level solutions (i.e. governmental and policy measures; monitoring and outcomes evaluation of actions taken to redress social determinants at country level and between countries).

3. U.S. recommendations have largely focused on steps within health care (e.g. EMR capture of social determinants, referral of individuals for social services).
   ➢ More national resources available to assist with finding social services

4. Comprehensive initiatives are emerging from outside of health care
   ➢ Multisector partnerships to address the root cause determinants (i.e. housing, education, income, employment) and target health outcomes
   ➢ Yield new settings for care and expanded influence for healthcare professionals

Thank You!

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