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*Precision Health Equity in Primary Care*
Stanford University Office of Community Engagement
NorthShore Outcomes Research Network

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Populations with Health Disparities

- Racial and ethnic minorities defined by Census
- Less privileged socio-economic status
- Underserved rural residents
- Sexual and gender minorities

A health outcome that is worse in one of these populations compared to a reference group defines a disparity.

- Social disadvantage results in part from being subject to discrimination or racism, and being underserved in health care.
Race/Ethnicity and Socioeconomic Status are Fundamental in Determining Health

- Race/ethnicity and SES predict life expectancy and mortality that are not fully explained
- African Americans have more strokes when compared to Whites for same level of SBP
- Most chronic diseases are more common in persons of less privileged SES
- Among persons with diabetes, all race/ethnic minorities have less heart disease and more ESRD, compared to Whites, over 10 years
## Life Expectancy in the U.S., 2017

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whites</td>
<td>76.5</td>
<td>81.1</td>
</tr>
<tr>
<td>Blacks</td>
<td>72.0</td>
<td>78.1</td>
</tr>
<tr>
<td>Latinos</td>
<td>79.2</td>
<td>84.0</td>
</tr>
<tr>
<td>Total in 2017</td>
<td>76.1</td>
<td>81.1</td>
</tr>
</tbody>
</table>

Arias E., [NCHS data brief](https://www.cdc.gov/nchs/data/databriefs/db244.pdf), CDC, (2016), no 244
Murphy SL, et al., [NCHS data brief](https://www.cdc.gov/nchs/data/databriefs/db328.pdf), CDC (2018), no 328
Relative Risk of All-Cause Mortality by US Annual Household Income Level in 2016

Assessment of Socioeconomic Status or Social Class in Clinical Medicine

- Education – years of formal, usually translated into categories
- Income – defined in terms of annual household $$$ by number of dependents
- Occupation and work – laborer, service, technical, professional, business, information; *prestige*
- Life course SES — effects understudied
- Parental education (children)
- Impute data from census tracts
Common Data Elements for Social Determinants of Health

Toolbox of Measures on SDOH

Launch
May 11, 2020

www.phenxtoolkit.org

Adoption of CDEs and standard measures will promote and facilitate:

• Data harmonization.
• Domestic and international cross-study analysis.
• Accelerated translational research.
• Greater understanding of the causes of health disparities.
• Effective interventions to reduce disparities.
# National Institute on Minority Health and Health Disparities Research Framework

<table>
<thead>
<tr>
<th>Domains of Influence (Over the Lifecourse)</th>
<th>Levels of Influence*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Individual</td>
</tr>
<tr>
<td>Biological</td>
<td>Biological Vulnerability and Mechanisms</td>
</tr>
<tr>
<td>Behavioral</td>
<td>Health Behaviors Coping Strategies</td>
</tr>
<tr>
<td>Physical/Built Environment</td>
<td>Personal Environment</td>
</tr>
<tr>
<td>Sociocultural Environment</td>
<td>Sociodemographics Limited English Cultural Identity Response to Discrimination</td>
</tr>
<tr>
<td>Health Care System</td>
<td>Insurance Coverage Health Literacy Treatment Preferences</td>
</tr>
</tbody>
</table>

**Health Outcomes**

- Individual Health
- Family/Organizational Health
- Community Health
- Population Health

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*Health Disparity Populations: Race/Ethnicity, Low SES, Rural, Sexual/Gender Minority Other Fundamental Characteristics: Sex/Gender, Disability, Geographic Region*
Perception of Unfair Treatment: 2015

In past 30 days, were you treated unfairly because of racial or ethnic background in store, work, entertainment place, dealing with police, or getting healthcare?

<table>
<thead>
<tr>
<th></th>
<th>Percent Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All</td>
</tr>
<tr>
<td>Latinos</td>
<td>36%</td>
</tr>
<tr>
<td>African Americans</td>
<td>53%</td>
</tr>
<tr>
<td>Whites</td>
<td>15%</td>
</tr>
</tbody>
</table>

Trust in clinician/institution? Role of Unconscious Bias?

Kaiser Family Foundation Survey of Americans on Race, November 2015.
Racism as Research Construct

- **Interpersonal**: Most work done, good measures developed, associations established, most common

- **Structural**: History, culture, institutions, policies and codified practices that perpetuate inequity; imperative to research

- **Internalized**: How discrimination (as above) effects individuals who are not aware or sublimate; accept cultural or biological inferiority

- Perceived societal racism and second-hand effects
Diversity in Science and Medicine is a Demographic Mandate

• Develop a diverse clinical workforce that will care for our patients: >50%
• Develop a diverse biomedical scientific workforce that will conduct better biomedical research in all areas of science
• Engage under-represented populations to participate in research
• Equal inclusion of people from all backgrounds especially those viewed differently because of exclusionary practices
Patient-Clinician Communication

• Directly linked to improved patient satisfaction, higher adherence and better health outcomes

• Commonwealth Survey asked whether patients had trouble understanding their doctor, MD did not listen, or had questions they could not ask

• Whites 16%, African Am 23%, Latinos 33% and Asians 27% had one or more yes responses

• Race-concordant visits were 2.15 m longer, had higher patient positive affect, more satisfied

Cross-Cultural Issues In Communication

- Styles of Communication: verbal/non-verbal, eye contact, touch, personal space, formal
- Trust and prejudice: Differentiate mistrust of “system” and clinician
- Decision-making and family dynamics: Individual autonomy is not the norm in all
- Models of illness, perception, stigma
- Traditions, customs, spirituality
- Sexual and gender issues
- End of Life Care: heightens empathy
Precision Medicine and Clinical Care

- When is “more precise” individualized approach better than a standard one with demonstrated efficacy?
- One size fits all approach can work to improve outcomes in many clinical situations
- New is not always better and is usually more expensive — cost must be considered
- Precision in patient-clinician interactions
- Enhance cultural competence/humility and reduce structural discrimination
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