Race, Racism and Health: Building a Healthy Future for All

David R. Williams, PhD, MPH
Florence & Laura Norman Professor of Public Health
Professor of African & African American Studies and of Sociology
Harvard University
Race and Health: Two Patterns

• Racial groups with a long history characterized by economic exploitation, social stigmatization, and geographic marginalization have markedly elevated levels of poor health outcomes:
  -- Blacks or African Americans
  -- American Indians and Alaskan Natives
  -- Native Hawaiians and other Pacific Islanders

• Immigrant groups tend to have better health than the U.S. average, but their health tends to worsen over time and across subsequent generations:
  -- Asians
  -- Hispanics or Latinos
Lifetime Prevalence of Psychiatric Disorder, by Race and Generational Status (%)

- Caribbean Black: 19.4%, 35.3%, 54.6%
- Latino: 23.8%, 30.1%, 43.4%
- Asian: 15.2%, 24.0%, 25.6%

Sources: Williams et al. 2007; Alegría et al. 2007; Takeuchi et al. 2007
## Allostatic Load

<table>
<thead>
<tr>
<th>10 biomarkers</th>
<th>High-risk thresholds *</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Systolic blood pressure</td>
<td>127 mm HG</td>
</tr>
<tr>
<td>2. Diastolic blood pressure</td>
<td>80 mm HG</td>
</tr>
<tr>
<td>3. Body Mass Index</td>
<td>30.9</td>
</tr>
<tr>
<td>4. Glycated hemoglobin</td>
<td>5.4%</td>
</tr>
<tr>
<td>5. Albumin</td>
<td>4.2 g/dL</td>
</tr>
<tr>
<td>6. Creatinine clearance</td>
<td>66 mg/dL</td>
</tr>
<tr>
<td>7. Triglycerides</td>
<td>168 mg/dL</td>
</tr>
<tr>
<td>8. C-reactive protein</td>
<td>0.41 mg/dL</td>
</tr>
<tr>
<td>9. Homocysteine</td>
<td>9 μmol/L</td>
</tr>
<tr>
<td>10. Total cholesterol</td>
<td>225</td>
</tr>
</tbody>
</table>

* = < 25th percentile for creatinine clearance; >75th percentile for others

Geronimus, et al., AJPH, 2006
Mean Allostatic Load, by Race & Nativity

<table>
<thead>
<tr>
<th>U.S. Born</th>
<th>Foreign-born Mexicans</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>2.5</td>
</tr>
<tr>
<td>Black</td>
<td>2.5</td>
</tr>
<tr>
<td>Mexican</td>
<td>2.5</td>
</tr>
<tr>
<td>All</td>
<td>2.9</td>
</tr>
<tr>
<td>0 to 10 years</td>
<td>2.8</td>
</tr>
<tr>
<td>11 to 20 years</td>
<td>2.9</td>
</tr>
<tr>
<td>21 years or more</td>
<td>3.1</td>
</tr>
</tbody>
</table>

Kaestner, et al., Social Science Quarterly, 2009
Research & Policy Challenge

What interventions, if any, can reverse the downward health trajectory of immigrants with length of stay in the U.S.?
A Global Phenomenon

In race-conscious societies, such as,

• Australia
• Brazil
• New Zealand
• South Africa
• the U.K.
• United States,

non-dominant racial groups have worse health than the dominant racial group
Life Expectancy, Indigenous Men

Maori, Aboriginal, First Nation, Am Indian & Alaskan Native; Bramley et al. 2004
Life Expectancy, Indigenous Women

Maori, Aboriginal, First Nation, Am Indian & Alaskan Native; Bramley et al. 2004
Moving Beyond Genetics
Social Context Diabetes Prevalence (Age-adjusted)

Schulz et al. Diabetes Care 2006; 29: 1866 - 1871
Disturbing Patterns

- Accelerated aging – earlier onset of disease
- Racial differences in the severity and progression of disease
- More adverse effects of some risk factors
- Long-term negative health effects of exposure to early life adversity
- Persistence of Disparities
- A residual effect of race when SES is controlled
- Documented adverse effects of psychosocial stress, including discrimination and institutional racism
Early Onset: Heart Failure

A 20-year follow-up of young adults in the CARDIA study found that incident heart failure before the age of 50 was 20 times more common in Blacks than Whites, with the average age of onset being 39 years old.

Bibbins-Domingo et al. 2009, NEJM;
Neonatal Mortality Rates (1st Births), U.S.

Mean Score on Allostatic Load by Age

Geronimus, et al., AJPA, 2006
Life Expectancy Lags, 1950-2006

NCHS, Health United States, 2010
Added Burden of Race

• Race and SES reflect two related but not interchangeable systems of inequality

• SES accounts for a large part of the racial differences in health

• **BUT**, there is an added burden of race, over and above SES that is linked to poor health.
# Life Expectancy At Age 25

<table>
<thead>
<tr>
<th>Group</th>
<th>White</th>
<th>Black</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>53.4</td>
<td>48.4</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Murphy, NVSS 2000
# Life Expectancy At Age 25

<table>
<thead>
<tr>
<th>Group</th>
<th>White</th>
<th>Black</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>53.4</td>
<td>48.4</td>
<td>5.0</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. 0-12 Years</td>
<td>50.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. 12 Years</td>
<td>54.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Some College</td>
<td>55.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. College Grad</td>
<td>56.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>6.4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Murphy, NVSS 2000; Braveman et al. AJPH; 2010, NLMS 1988-1998
# Life Expectancy At Age 25, 1998

<table>
<thead>
<tr>
<th>Group</th>
<th>White</th>
<th>Black</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>53.4</td>
<td>48.4</td>
<td>5.0</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. 0-12 Years</td>
<td>50.1</td>
<td>47.0</td>
<td></td>
</tr>
<tr>
<td>b. 12 Years</td>
<td>54.1</td>
<td>49.9</td>
<td></td>
</tr>
<tr>
<td>c. Some College</td>
<td>55.2</td>
<td>50.9</td>
<td></td>
</tr>
<tr>
<td>d. College Grad</td>
<td>56.5</td>
<td>52.3</td>
<td></td>
</tr>
<tr>
<td>Difference</td>
<td>6.4</td>
<td>5.3</td>
<td></td>
</tr>
</tbody>
</table>

Murphy, NVSS 2000; Braveman et al. AJPH; 2010, NLMS 1988-1998
# Life Expectancy at Age 25

<table>
<thead>
<tr>
<th>Group</th>
<th>White</th>
<th>Black</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>53.4</td>
<td>48.4</td>
<td>5.0</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. 0-12 Years</td>
<td>50.1</td>
<td>47.0</td>
<td>3.1</td>
</tr>
<tr>
<td>b. 12 Years</td>
<td>54.1</td>
<td>49.9</td>
<td>4.2</td>
</tr>
<tr>
<td>c. Some College</td>
<td>55.2</td>
<td>50.9</td>
<td>4.3</td>
</tr>
<tr>
<td>d. College Grad</td>
<td>56.5</td>
<td>52.3</td>
<td>4.2</td>
</tr>
<tr>
<td><strong>Difference</strong></td>
<td>6.4</td>
<td>5.3</td>
<td></td>
</tr>
</tbody>
</table>

*Murphy, NVSS 2000; Braveman et al. AJPH; 2010, NLMS 1988-1998*
Meharry vs Johns Hopkins

A 1958-65, all Black, cohort of Meharry Medical College MDs was compared with a 1957-64, all White, cohort of Johns Hopkins MDs. 23-25 years later, the Black MDs had:

- higher risk of CVD (RR=1.65)
- earlier onset of disease
- incidence rates of diabetes & hypertension that were twice as high
- higher incidence of coronary artery disease (1.4 times)
- higher case fatality (52% vs 9%)

Thomas et al., 1997 J. Health Care for Poor and Underserved
Why Race Still Matters

1. Health is affected not only by current SES but by exposure to adversity over the life course.

2. All indicators of SES are non-equivalent across race. Compared to whites, blacks & Hispanics receive less income at the same levels of education, have less wealth at the equivalent income levels, and have less purchasing power (at a given income level) because of higher costs of goods and services.

3. Personal experiences of discrimination and institutional racism are added pathogenic factors that can affect the health in multiple ways.

4. Higher Exposure to multiple stressors
Early Life Adversity

• How is early life stressors linked to adult inflammation (CRP, IL6, Interleukin-6, Fibrinogen, E-selectin, sICAM-1)?

• In the MIDUS study, a measure of early life adversity (stressful events during childhood, relationship with parents, and verbal or physical abuse by parents) was significantly associated with 4 of 5 markers of inflammation for African Americans.

• No association among Whites

Slopen et al 2010, Psychosomatic Med
## Wealth of Whites and of Minorities per $1 of Whites, 2000

<table>
<thead>
<tr>
<th>Household Income</th>
<th>White</th>
<th>B/W Ratio</th>
<th>Hisp/W Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>$ 79,400</td>
<td>9¢</td>
<td>12¢</td>
</tr>
<tr>
<td>Poorest 20%</td>
<td>$ 24,000</td>
<td>&lt;1¢</td>
<td>2¢</td>
</tr>
<tr>
<td>2nd Quintile</td>
<td>$ 48,500</td>
<td>11¢</td>
<td>12¢</td>
</tr>
<tr>
<td>3rd Quintile</td>
<td>$ 59,500</td>
<td>19¢</td>
<td>19¢</td>
</tr>
<tr>
<td>4th Quintile</td>
<td>$ 92,842</td>
<td>35¢</td>
<td>39¢</td>
</tr>
<tr>
<td>Richest 20%</td>
<td>$ 208,023</td>
<td>31¢</td>
<td>35¢</td>
</tr>
</tbody>
</table>

Orzechowski & Sepielli 2003, U.S. Census
Between 2005 and 2009 the median wealth of white households declined by 16% compared to 53% for black and 66% for Hispanic households.

Thus, the median wealth of whites is 20 times that of blacks and 18 times that of Hispanics.

Pew Research Center, 2011
Median Wealth and Race, 2007

- For every dollar of wealth that Whites have, Blacks and Latinos have only 6 cents.
- If we exclude home equity, and only look at other financial assets, Blacks and Latinos have one penny for every dollar of financial wealth that Whites have.

Wolff.2010
Distinctive Social Exposures

The added burden of racism
Discrimination Persists

- Pairs of young, well-groomed, well-spoken college men with identical resumes apply for 350 advertised entry-level jobs in Milwaukee, Wisconsin. Two teams were black and two were white. In each team, one said that he had served an 18-month prison sentence for cocaine possession.

- The study found that it was easier for a white male with a felony conviction to get a job than a black male whose record was clean.

Devah Pager; Am J Sociology, 2004
Percent of Job Applicants Receiving a Callback

<table>
<thead>
<tr>
<th>Criminal Record</th>
<th>White</th>
<th>Black</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>34%</td>
<td>14%</td>
</tr>
<tr>
<td>Yes</td>
<td>17%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Devah Pager; Am J Sociology, 2004
Race, Criminal Record, and Entry-level Jobs in NY, 2004

Devah Pager et al Am Soc Review, 2009; 169 employers
Racism and Health: Mechanisms

• Institutional discrimination can restrict socioeconomic attainment and group differences in SES and health.

• Segregation can create pathogenic residential conditions.

• Discrimination can lead to reduced access to desirable goods and services.

• Internalized racism (acceptance of society’s negative characterization) can adversely affect health.

• Racism can create conditions that increase exposure to traditional stressors (e.g. unemployment).

• Experiences of discrimination may be a neglected psychosocial stressor.
Residential Segregation

Place Matters!

Geographic location determines exposure to risk factors and resources that affect health.
Residential Segregation is a place-based example of Institutional Discrimination that has pervasive adverse effects on health.
Racial Segregation Is …

1. …"basic" to understanding racial inequality in America (Myrdal 1944).

2. …key to understanding racial inequality (Kenneth Clark, 1965).

3. …the "linchpin" of U.S. race relations and the source of the large and growing racial inequality in SES (Kerner Commission, 1968).

4. …"one of the most successful political ideologies" of the last century and "the dominant system of racial regulation and control" in the U.S (John Cell, 1982).

5. …"the key structural factor for the perpetuation of Black poverty in the U.S." and the "missing link" in efforts to understand urban poverty (Massey and Denton, 1993).
How Segregation Can Affect Health

1. Segregation determines quality of education and employment opportunities.

2. Segregation can create pathogenic neighborhood and housing conditions.

3. Conditions linked to segregation can constrain the practice of health behaviors and encourage unhealthy ones.

4. Segregation can adversely affect access to high-quality medical care.

Source: Williams & Collins, 2001
Residential Segregation and SES
A study of the effects of segregation on young African American adults found that the elimination of segregation would erase black-white differences in

- Earnings
- High School Graduation Rate
- Unemployment

And reduce racial differences in single motherhood by two-thirds

Cutler, Glaeser & Vigdor, 1997
### Our Neighborhood Affects Our Health

#### Unhealthy Community vs Healthy Community

<table>
<thead>
<tr>
<th>Unhealthy Community</th>
<th>Healthy Community</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsafe even in daylight</td>
<td>Safe neighborhoods, safe schools, safe walking routes</td>
</tr>
<tr>
<td>Exposure to toxic air, hazardous waste</td>
<td>Clean air and environment</td>
</tr>
<tr>
<td>No parks/areas for physical activity</td>
<td>Well-equipped parks and open/spaces/organized community recreation</td>
</tr>
<tr>
<td>Limited affordable housing is run-down; linked to crime ridden neighborhoods</td>
<td>High-quality mixed income housing, both owned and rental</td>
</tr>
<tr>
<td>Convenience/liquor stores, cigarettes and liquor billboards, no grocery store</td>
<td>Well-stocked grocery stores offering nutritious foods</td>
</tr>
</tbody>
</table>
## Our Neighborhood Affects Our Health

<table>
<thead>
<tr>
<th>Unhealthy Community</th>
<th>vs</th>
<th>Healthy Community</th>
</tr>
</thead>
<tbody>
<tr>
<td>Streets and sidewalks in disrepair</td>
<td>Clean streets that are easy to navigate</td>
<td></td>
</tr>
<tr>
<td>Burned-out homes, littered streets</td>
<td>Well-kept homes and tree-lined streets</td>
<td></td>
</tr>
<tr>
<td>No culturally sensitive community centers, social services or opportunities to engage with neighbors in community life</td>
<td>Organized multicultural community programs, social services, neighborhood councils or other opportunities for participation in community life</td>
<td></td>
</tr>
<tr>
<td>No local health care services</td>
<td>Primary care through physicians’ offices or health center; school-based health programs</td>
<td></td>
</tr>
<tr>
<td>Lack of public transportation, walking or biking paths</td>
<td>Accessible, safe public transportation, walking and bike paths</td>
<td></td>
</tr>
</tbody>
</table>
Racial Differences in Residential Environment

- In the 171 largest cities in the U.S., there is not even one city where whites live in ecological equality to blacks in terms of poverty rates or rates of single-parent households.

- “The worst urban context in which whites reside is considerably better than the average context of black communities.” p.41

Sampson & Wilson 1995
Perceived Discrimination:
Experiences of discrimination are a neglected psychosocial stressor
2009 Review

- Some longitudinal data
- Attention to the severity and course of disease
- Adjustment for psychological confounders
- International studies:
  -- national: New Zealand, Sweden, & South Africa
  -- Australia, Canada, Denmark, the Netherlands, Norway, Spain, Bosnia, Croatia, Austria, Hong Kong, and the U.K.
Perceived Discrimination and Health

- Discrimination is associated with elevated risk of:
  -- diabetes risk (Hemoglobin A1c)
  -- substance use (smoking, alcohol, other drugs)
  -- breast cancer incidence
  -- uterine myomas (fibroids)
  -- subclinical carotid artery disease (IMT; intima-media thickness)
  -- Delays in seeking treatment, lower adherence to treatment regimes, lower rates of follow-up

- Discrimination accounts, in part, for racial/ethnic disparities in health, in U.S., and elsewhere

Williams & Mohammed, J Behav Med 2009
Every Day Discrimination

In your day-to-day life how often have any of the following things happened to you?

- You are treated with less courtesy than other people.
- You are treated with less respect than other people.
- You receive poorer service than other people at restaurants or stores.
- People act as if they think you are not smart.
- People act as if they are afraid of you.
- People act as if they think you are dishonest.
- People act as if they’re better than you are.
- You are called names or insulted.
- You are threatened or harassed.

What do you think was the main reason for these experiences?
Discrimination & Health: Tene Lewis et al

- **Everyday Discrimination:** positively associated with:
  - coronary artery calcification (Lewis et al., Psy Med, 2006)
  - C-reactive protein (Lewis et al., Brain Beh Immunity, 2010)
  - lower birth weight (Earnshaw et al., Ann Beh Med, 2013)
  - cognitive impairment (Barnes et al., 2012)
  - poor sleep [object. & subject.] (Lewis et al, Hlth Psy, 2012)
  - visceral fat (Lewis et al., Am J Epidemiology, 2011)
Discrimination & Visceral Fat

Mean Visceral Fat, cm²

Tertiles of Discrimination

Lewis et al.  Am J Epidemiology, 2011
Perceived Threat of Discrimination:

Discrimination, like other stressors, can affect health through both actual exposure and the threat of exposure.
Heightened Vigilance Scale

In dealing with the experiences that you just told me about, how often do you

1. Think in advance about the kind of problems that you are likely to experience?
2. Try to prepare for possible insults before leaving home?
3. Feel that you always have to be careful about your appearance (to get good service or avoid being harassed)?
4. Carefully watch what you say and how you say it?
5. Carefully observe what happens around you?
6. Try to avoid certain social situations and places?

Williams (DAS 1995) in Clark et al., J Adol Health, 2006
Heightened Vigilance and Hypertension

- Study of 3,105 adults in Chicago (CCAHS Study)
- Blacks have higher levels of vigilance than whites
- Vigilance associated with increased odds of hypertension for Blacks and Hispanics but not Whites
- Interaction between R/E and vigilance: at low levels of vigilance, racial disparities in hypertension are small. As vigilance increased, the racial/ethnic gap in hypertension widened for Blacks and Hispanics (marginally signif.)
- Vigilance remains predictive of hypertension when adjusted for hypertension risk factors & discrimination

Discrimination must be assessed and understood within the context of a broad range of psychosocial stressors that capture the social contexts and experiences of populations.
High Stressor Exposure by Race/Ethnicity

Adjusted for sex, age, and (if necessary) employment status, marital status, and parent status.

* p<.05, compared to Whites
Stress and Racial Inequities in Health

• Important to capture a broad range of stressors,
• Blacks & U.S.-born Hispanics had greater stressor exposure compared to Whites and foreign-born Latinos
• Graded association between number of stressors and poor health (each additional stressor = worse health)
• For Blacks & U.S.-born Hispanics, stress exposure explained a substantial portion of the health gap even after adjusting for SES
• The association between income and health is reduced when adjusted for stress
• Stress exposure operates apart from SES and also through exposure to stressors that accompany low SES.

Sternthal, Slopen, & Williams Du Bois Review, 2011
Improving Population Health & Reducing Inequities in Health

What Can We Do?
Improving American’s Health

Provide high quality care to every client

(This is very, very, hard to do in practice!)
The Effect of Race and Sex on Physicians' Recommendations for Cardiac Catheterization

- 720 physicians viewed recorded interviews
- Reviewed data about a hypothetical patient
- The physicians then made recommendations about that patient's care
David Williams, a University of Michigan professor, right, says: “We have a health care system that is the pride of the world, but this report documents that the playing field is not even.”
Race and Medical Care

- Across virtually every therapeutic intervention, ranging from high technology procedures to the most elementary forms of diagnostic and treatment interventions, minorities receive fewer procedures and poorer quality medical care than whites.

- These differences persist even after differences in health insurance, SES, stage and severity of disease, co-morbidity, and the type of medical facility are taken into account.

- Moreover, they persist in contexts such as Medicare and the VA Health System, where differences in economic status and insurance coverage are minimized.

Institute of Medicine, 2002
Ethnicity and Analgesia

A chart review of 139 patients with isolated long-bone fracture at UCLA Emergency Department (ED):

- All patients aged 15 to 55 years, had the injury within 6 hours of ER visit, had no alcohol intoxication.

- 55% of Hispanics received no analgesic compared to 26% of non-Hispanic whites.

- After adjustment for sex, primary language, insurance, occupational injury, time of presentation, total time in ED, fracture reduction and hospital admission, being Hispanic was the strongest predictor of no analgesia.

- Hispanics were 7.5 times more likely than NH whites to receive no analgesia, after adjustment for all factors

Todd, et al. 1993
Disparities in the Clinical Encounter: The Core Paradox

How could well-meaning and highly educated health professionals, working in their usual circumstances with diverse populations of patients, create a pattern of care that appears to be discriminatory?
Unconscious Discrimination

- When one holds a negative stereotype about a group and meets someone who fits the stereotype s/he will discriminate against that individual

- Stereotype-linked bias is an
  - Automatic process
  - Unconscious process

- It occurs even among persons who are not prejudiced
"I am not racist: I know I don’t stereotype"

• Conclusive evidence that stereotypes are activated automatically (without intent).
• Individuals frequently are not aware of activation nor impact on their perceptions, emotions and behavior.
• They are activated more quickly and effortlessly than conscious cognition.
• Many cognitive processes result in confirmation of expectancies (we process information in ways that support our beliefs).

van Ryn, 2003
Stereotypes in Our Culture

• BEAGLE (Bound Encoding of the Aggregate Language Environment) Project contains about 10 million words from a sample of books, newspapers, magazine articles, etc.

• A good representation of American culture

• Equivalent to what the average college-level student has read in her lifetime

• Statistically analyzed the associative strength between pairs of words

• Provides estimate of how often Americans have seen or heard words paired over their lifetime

Verhaeghen et al. British J Psychology, 2011
<table>
<thead>
<tr>
<th>Stereotypes in Our Culture</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BLACK poor</td>
<td></td>
<td>.64</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BLACK violent</td>
<td></td>
<td>.43</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BLACK religious</td>
<td></td>
<td>.42</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BLACK lazy</td>
<td></td>
<td>.40</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BLACK cheerful</td>
<td></td>
<td>.40</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BLACK dangerous</td>
<td></td>
<td>.33</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEMALE distant</td>
<td></td>
<td>.37</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEMALE warm</td>
<td></td>
<td>.35</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEMALE gentle</td>
<td></td>
<td>.34</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEMALE passive</td>
<td></td>
<td>.34</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WHITE wealthy</td>
<td></td>
<td>.48</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WHITE progressive</td>
<td></td>
<td>.41</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WHITE conventional</td>
<td></td>
<td>.37</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WHITE stubborn</td>
<td></td>
<td>.32</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WHITE successful</td>
<td></td>
<td>.30</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WHITE educated</td>
<td></td>
<td>.30</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MALE dominant</td>
<td></td>
<td>.46</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MALE leader</td>
<td></td>
<td>.31</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MALE logical</td>
<td></td>
<td>.31</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MALE strong</td>
<td></td>
<td>.31</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Verhaeghen et al. British J Psychology, 2011
Reducing Racial Bias Among Health Care Providers: Lessons from Social-Cognitive Psychology

Diana Burgess, PhD\textsuperscript{1,2}, Michelle van Ryn, PhD, MPH\textsuperscript{1,3}, John Dovidio, PhD\textsuperscript{4}, and Somnath Saha, MD, MPH\textsuperscript{5}
Counteracting unconscious prejudice and stereotypes: Individuation

• **Individuation**: provider focuses on the individual attributes of specific patient (vs categorization: perceiving patient through filter of group (e.g., race)

• With adequate motivation, cognitive resources, and effort, people can learn to focus on the unique qualities of individuals, rather than the groups they belong to, in forming impressions and behavior

• Even automatically activated prejudice and stereotypes can be inhibited when people are perceived more in terms of their particular qualities vs. primarily as members of social categories.

Recognizing Unconscious Biases

Implicit tests, such as the Implicit Association Test (IAT), can reveal unconscious prejudice and stereotypes. These can engender negative emotional states that motivate people to be more sensitive to and attempt to counteract unconscious prejudice and stereotypes.

implicit.harvard.edu/implicit/
Improving Health

Care that Addresses the Social context
Care that Addresses the Social context

Why treat illness and send people back to live in the same conditions that made them sick in the first place?
Medical Legal Partnership

• Enables MDs to refer to unique specialists: on-site attorneys
• Most low-income persons face legal issues that affect the quality of life and their management of disease
• Adding lawyers to medical team can screen and assist families for social problems that affect effective care and illness management
• Stressors addressed in areas of unhealthy housing, immigration, income support, food, education access, disability, family law
• A child with asthma in a moldy apartment will not breathe symptom free, regardless of meds, without improved living conditions

Zuckerman et al. Pediatrics, 2004
Health Leads (formerly Project Health)

- College volunteers staff waiting rooms of hospital clinics or health centers.
- Assess patients needs re: food, housing, heating or other social issues
- These volunteers then “fill” the prescription for food assistance, housing improvement, etc. by connecting patients to local resources
- In 2010, volunteers secured needed resources for 57% of cases in 90 days
- Currently in waiting rooms of 23 hospital clinics or health centers.
Service Delivery and Social Context

- 244 low-income hypertensive patients, 80% black (matched on age, race, gender, and blood pressure history) were randomly assigned to:

  - **Routine Care**: Routine hypertensive care from a physician.
  - **Health Education Intervention**: Routine care, plus weekly clinic meetings for 12 weeks run by a health professional.
  - **Outreach Intervention**: Routine care, plus home visits by lay health workers*. Provided info on hypertension, discussed family difficulties, financial strain, employment opportunities, and, as appropriate, provided support, advice, referral, and direct assistance.
  - **Recruited from the local community, one month of training to address social and medical needs of persons with hypertension.**

Syme et al. 1978
Service Delivery and Social Context: Results

After 7 months of follow-up, patients in the outreach group:

1. Were more likely to have their blood pressure controlled than patients in the other two groups.

2. Knew twice as much about blood pressure as patients in the other two groups. Those in the outreach group with more knowledge were more successful in blood pressure control.

3. Were more compliant with taking their hypertensive medication than patients in the health education intervention group. Moreover, good compliers in the outreach third group were twice as successful at controlling their blood pressure as good compliers in the health education group.

Syme et al. 1978
Improving Health & Reducing Inequities

Health Care Improvement alone will NOT solve our health problems

Healthier lifestyles are needed
Needed Behavioral Changes

- Reducing Smoking
- Improving Nutrition and Reducing Obesity
- Increasing Exercise
- Reducing Alcohol Misuse
- Improving Sexual Health
- Improving Mental Health
Reducing Inequalities

Reducing Negative Health Behaviors?

*Changing health behaviors requires more than just more health information. “Just say No” is not enough.

*Interventions narrowly focused on health behaviors are unlikely to be effective.

*The experience of the last 100 years suggests that interventions on intermediary risk factors will have limited success in reducing social inequalities in health as long as the more fundamental social inequalities themselves remain intact.

House & Williams 2000; Lantz et al. 1998; Lantz et al. 2000
Improving Health

Need for Social Responsibility:

• We have to create the opportunities to promote good health for all
• We have to remove the barriers that make it almost impossible for some individuals to make healthy choices
Moving Upstream

Effective Policies to reduce inequalities in health must address fundamental non-medical determinants.
Centrality of the Social Environment

An individual’s chances of getting sick are largely unrelated to the receipt of medical care.

Where we live, learn, work, play and worship determine our opportunities and chances for being healthy.

Social Policies can make it easier or harder to make healthy choices.
Moving Upstream Means

- Changing the social, physical and economic environments that determine health and risk factors for health
- A complementary approach to individual and group level interventions
- Individuals in the intervention do not enroll and may be unaware of their participation
- May be implemented at low economic costs (removing vending machines or tobacco bans)
- Requires political will

Not a New Idea

• Improvements in sanitation in early 20th century
• Improvements in working conditions and equipment safety
• Seat belts in automobiles
• Laws regarding road safety
• Eliminating lead in paint and gasoline
• Reducing Drunk Driving
• Water Fluoridation

## Physical Activity Interventions

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Type of Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased access to places for physical activity</td>
<td>Infrastructure</td>
</tr>
<tr>
<td>Enhanced school-based physical education classes</td>
<td>Institutional policy</td>
</tr>
<tr>
<td>Urban design of neighborhoods with proximity to retail, schools, and recreation areas</td>
<td>Zoning regulation</td>
</tr>
<tr>
<td>Point-of-service signs to increase stair walking</td>
<td>Institutional policy</td>
</tr>
<tr>
<td>Street closures</td>
<td>Institutional policy</td>
</tr>
<tr>
<td>Widening sidewalks</td>
<td>Building codes</td>
</tr>
</tbody>
</table>

Katz, JAMA, 2009
### Nutrition Interventions

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Type of Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ban on trans fatty acids in restaurants</td>
<td>Law</td>
</tr>
<tr>
<td>Menu labeling in restaurants</td>
<td>Law</td>
</tr>
<tr>
<td>Removal of vending machines in schools</td>
<td>Institutional policy</td>
</tr>
<tr>
<td>Adding salad bars at schools</td>
<td>Institutional policy</td>
</tr>
<tr>
<td>Incentives for neighborhood supermarkets</td>
<td>Zoning regulation</td>
</tr>
<tr>
<td>Creation of farmers’ markets</td>
<td>Institutional policy</td>
</tr>
<tr>
<td>Limit junk food ads directed at children</td>
<td>Law</td>
</tr>
<tr>
<td>Tax on high-caloric, low-nutrition foods</td>
<td>Tax</td>
</tr>
</tbody>
</table>

Katz, JAMA, 2009
Needed Steps

• The best way to improve health and reduce our medical bills would be to invest in:
  – Schools
  – Sidewalks
  – Produce markets
  – Preschool programs
  – Parks
  – Jobs
  – Housing
  – Transportation
Structural Interventions

We can improve health through policies and procedures that seek to:

• Improve housing and neighborhood conditions
• Increase educational quality
• Enhance access to additional income, employment opportunities and other desirable resources
• Reduce violence and incarceration
Moving to Opportunity

- The Moving to Opportunity Program randomized families with children in high poverty neighborhoods to move to less poor neighborhoods.

- Three years later, there were improvements in the mental health of both parents and sons who moved to the low-poverty neighborhoods.

- 10 to 15 years later, movers had lower levels of obesity, severe obesity & diabetes risk ($HbA_{1c}$).

Leventhal and Brooks-Gunn, 2003; Ludwig et al. NEJM, 2011
Improving Residential Circumstances

• Policies need to address the concentration of economic disadvantage and the lack of an infrastructure that promotes opportunity that co-occurs with segregation and exists for African Americans and on many American Indian reservations.

• Nothing inherently negative about living next to those of one’s own race

• Major infusion of economic capital to improve the social, physical, and economic infrastructure of disadvantaged communities

• One should not have to move to live in a better neighborhood

Williams and Collins 2004
Purpose Built Communities

Instead of addressing poverty, urban blight, failing schools, crime and unemployment piecemeal, community activists and philanthropists in Atlanta took them on at once (integrative strategies include cradle-to-college educational opportunities, mixed-income housing, early child development, recreational opportunities).

Atlanta’s East Lake District results:

- A 95% reduction in crime since its launch in 1995
- Employment rate of low-income: from 13% to 70%
- Striking school achievement: East Lake students at or above grade level increase from 5% at start to 96%
- Purpose Built Communities in Atlanta, New Orleans, Indianapolis, Charlotte, among others.
High/Scope Perry Preschool

Program: Black children, living in poverty & at risk of school failure
- Random assignment
- Daily classes and weekly home visits

At age 40, those who received the program:
- Were more likely to graduated from high school
- Had higher employment, income, savings, home ownership
- Had fewer arrests for violent, property and drug crimes
- Cost-benefit: $17 return to society for every dollar invested

Reynolds et al. 2007; Muennig et al. 2009
Stereotype Threat

-- When a stigma of inferiority is activated for African Americans under experimental conditions, performance on an examination is adversely affected (Steele, 1997).

-- Women who were told that they perform more poorly than men and white men told that they do worse than Asians, had lower scores on an examination than control groups (Fischer et al., 1996; Steele, 1997)

-- Asian American women, making gender salient reduces academic performance but making their race salient enhances it (Shih et al., 1999)

-- Black Caribbean immigrants told that blacks perform poorly improved their performance, but making race salient reduced performance for their children (Deaux et al., 2007)
Psychological Interventions

We can improve health through interventions that improve educational performance:

• Self-Affirmation Interventions
• Social Belonging Interventions
• Utilizing dramatic, salient counter-narratives
Self-Affirmation Intervention

- Two randomized double-blind experiments with black and white seventh-graders
- Intervention: students to their most important value, write a paragraph on why it is important to the student
- Goal: affirm sense of adequacy and self-worth
- Black students in affirmation condition earned higher grades in targeted course and in their other courses
- Improved grades evident for 70% of Blacks.
- One or two administrations work equally well
- Racial achievement gap reduced by 40%
- No effect of the intervention among whites.

Cohen et al, Science, 2006
Self-Affirmation Intervention -II

- Two-year follow-up of this study found that a positive effect of affirmation on students’ GPA over two years was evident for blacks but not whites,
- Low achieving black students show greatest benefit
- The intervention also affected students’ perceptions of their ability to succeed in school
- This brief psychological intervention reduced the racial achievement gap and reduced the number of black students placed in remedial programs
- A similar experiment with women found improved their grades and reduced the male-female gap in grades

Empowering Communities

- A study of suicide among native youth in Canada documented the central role that cultural empowerment can play in health.

- This group has one of the highest rates of global youth suicide but examination of youth suicide rates between 1987 and 1992 in 196 First Nation communities found that more than half of the communities had no youth suicides during study period.

- The researchers developed a measure of cultural empowerment and continuity to identify the determinants of variation in youth suicide.

Empowering Communities II

- The six markers captured challenging the government for titles to land and the right to self-governance, control over the provision of services (education, healthcare, police and fire) and the presence of a building for cultural activities.

- The study found a strong inverse relationship between each indicator of continuity and empowerment and youth suicide and a strong dose-response relationship between the number of markers and the prevalence of suicide.

It is About All of Us

- The Health of a society depends on the health of all members of that society
- Yet, too many individuals are sicker and dying younger than they should
- Millions of adults are suffering from diseases that should be avoided
- Health problems hurt a nation’s productivity
- When people are sick, they don’t do as well at school, at home or at work
- Improving health will not only improve the economy, it will improve the quality of life for millions of members of society
Improving Health: Opportunities

• Initiatives in health care alone are insufficient
• Social factors like education, housing, transportation, the environment can have decisive impacts
• There is high-quality evidence of promising approaches that are making a difference now
• Health professionals need to work with other sectors to bring resources together in a concerted focus to modify where and how we live, learn, work and play
• We need to attend to those who are farthest behind
Resources
Health Outcomes

Mortality (length of life) 50%
Morbidity (quality of life) 50%

Health Factors

Health behaviors (30%)
Clinical care (20%)
Social and economic factors (40%)
Physical environment (10%)

Policies and Programs

Tobacco use
Diet & exercise
Alcohol use
Sexual activity
Access to care
Quality of care
Education
Employment
Income
Family & social support
Community safety
Environmental quality
Built environment
A 7-part documentary series & public impact campaign

www.unnaturalcauses.org

Produced by California Newsreel with Vital Pictures
Presented on PBS by the National Minority Consortia of Public Television Impact Campaign in association with the Joint Center Health Policy Institute
Conclusions

• Racism, in its multiple forms, has emerged as a major risk factor for health
• Need for increased research attention to understand its potential effects
• Urgent need to identify:
  -- effective efforts to mitigate its pathogenic effects
  -- feasible and optimal strategies to create the political will and support to dismantle societal structures that support racism, ethno-centrism, anti-immigrant sentiments and incivility
A Call to Action

“Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has.”

Margaret Mead