Social Inequalities in Health: The Case of Racial/Ethnic Inequities

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Chair, Department of Social and Behavioral Sciences
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Racial Inequities In Health Have Existed for a Long Time
Life Expectancy Lags, 1950-2010

Source: NCHS, Health United States, 2013
### And Covid-19 Has Made These Inequities Much Worse
Death Rates for Other Races Compared to Whites

Age-adjusted ORs; Deaths through March 2, 2021, 2021; (> 520,000 U.S. deaths)

<table>
<thead>
<tr>
<th>Race</th>
<th>OR 2.6</th>
<th>OR 2.4</th>
<th>OR 2.2</th>
<th>OR 2.0</th>
<th>OR 1.5</th>
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<tbody>
<tr>
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<td>5,477</td>
<td></td>
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<td>89,071</td>
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<td>73,236</td>
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<tr>
<td>Asian</td>
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<td>17,747</td>
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<tr>
<td>White</td>
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<td>299,915</td>
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Decline: Life Expectancy at Birth, 2019-2020

Changes (Years)

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<tr>
<th>Category</th>
<th>Changes</th>
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<tbody>
<tr>
<td>Hispanic Male</td>
<td>-3.7</td>
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<tr>
<td>Hispanic Female</td>
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</tr>
<tr>
<td>Black Male</td>
<td>-3.3</td>
</tr>
<tr>
<td>Black Female</td>
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<tr>
<td>White Male</td>
<td>-1.3</td>
</tr>
<tr>
<td>White Female</td>
<td>-1.1</td>
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</table>

Arias et al, NVSS July 2021
Life Expectancy by Race, 1950-2020

NCHS, Health United States Chartbook, 2019; Arias et al, NVSS July 2021
What Drives these Large Racial Inequities in Health?
Socioeconomic Status (SES), whether measured by income, education, occupation, poverty or wealth, is a central determinant of the distribution of valuable resources in society.
SAT = Scholastic Aptitude Test
OR

Student Affluence Test?
SAT SCORE by Family Income

SAT Score (Math & Reading Only)

Fair Test, College Board, Wall Street Journal, Oct 7th, 2014
Race/Ethnicity is strongly related to SES
Racial Differences in Income are Substantial:

<table>
<thead>
<tr>
<th></th>
<th>1 dollar</th>
<th>1.23 dollar</th>
<th>73 cents</th>
<th>59 cents</th>
<th>59 cents</th>
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<tbody>
<tr>
<td>Whites</td>
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<td></td>
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<td>Asians</td>
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<tr>
<td>Am Indians*</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Blacks</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

U.S. Census Bureau, Semega et al., 2019; * For 2017; US Census Bureau, ACS, 2017
Reducing Racial Inequity in Income is on a Treadmill: A Lot of Talk: Little Progress

• In 1978, Black households earned 59 cents for every dollar of income that White households earned

• In 2018, the gap is still 59 cents to the dollar
Large racial gaps in income markedly understate the racial gap in economic status
Median Wealth and Race, 2016

For every dollar of wealth that Whites have,

- Blacks have 10 cents
- Latinos have 12 cents
- Other Races have 38 cents

Dettling et al., FEDS Notes, Federal Reserve Board (SCF), 2017
What Low Economic Status Means

We are in the same storm but in different Boats
Added Burden of Race
Life Expectancy at Age 25 Based on Level of Education

6.4-year gap

5-year gap overall

5.3-year gap

Murphy, NVSS 2000; Braveman, Cubbin, Egerter, Williams, Pamuk, AJPH, 2010; NLMS 1988-1998
Blacks with a college degree have a lower life expectancy than Whites with only a high school degree.
Why Racial Inequality Exists

What does America Think?
Solution to Inequality: More Effort

Blacks would do as well as whites if they only tried harder

Vandermaas-Peeler et al, 2018, Pub Relig Res Institute, American Values Survey
Solution to Inequality: More Effort, Whites

Blacks would do as well as whites if they only tried harder

Vandermaas-Peeler et al, 2018, Pub Relig Res Institute, American Values Survey
What does Scientific Research Clearly Say?

Racism and Racial Discrimination are alive, well, pervasive and thriving in America.
The House that Racism Built

Racism as a societal system

Social Forces
- Political
- Legal
- Economic
- Religious
- Cultural
- Historical Events

Williams, Lawrence, Davis, Vu, ‘Understanding how Discrimination Can Affect Health,’ HSR, 2019
Racism Defined

• Racism: an organized system that,
  -- categorizes and ranks
  -- devalues, disempowers, and
  -- differentially allocates opportunities/resources

• The development of racism is typically undergirded by an ideology of inferiority in which some population groups are regarded as being inferior to others

• This leads to the development of
  -- negative attitudes/beliefs (prejudice and stereotypes) to out-groups, and
  -- differential treatment (discrimination) by individuals and social institutions

Bonilla-Silva, 1996; Williams 2004
The House that Racism Built

Racism as a societal system

Social Forces
• Political
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• Economic
• Religious
• Cultural
• Historical Events

Structural or Institutional Racism (e.g. Segregation)

Williams, Lawrence, Davis, Vu, ‘Understanding how Discrimination Can Affect Health,’ HSR, 2019
US: Centrality of Segregation in Creating Racial Inequities

• Segregation refers to restricted residence to particular areas based on race
• It includes the forced removal and relocation of indigenous peoples
• Reflects institutionalized isolation & marginalization of racial populations

Racial Residential Segregation: A Fundamental Cause of Racial Disparities in Health

David R. Williams, PhD, MPH
Chiquita Collins, PhD

SYNOPSIS

Racial residential segregation is a fundamental cause of racial disparities in health. The physical separation of the races by enforced residence in certain areas is an institutional mechanism of racism that was designed to protect whites from social interaction with blacks. Despite the absence of supportive legal statutes, the degree of residential segregation remains extremely high for most African Americans in the United States. Extremely high for most African Americans in the United States.
Racial Segregation Is …

- One of the most successful domestic policies of the 20th century
- "the dominant system of racial regulation and control" in the U.S

John Cell, 1982
Segregation is like a burglar at mid-night. It slips into the community, awakens no one, but once it shows up, valuables disappear:

- Quality Schools
- Safe playgrounds
- Good jobs
- Healthy environment
- Safe housing
- Transportation
- Healthcare
Racial Differences in Residential Environment

In the 171 largest cities in the U.S., there is not even one city where whites live in equal conditions to those of blacks

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

Sampson & Wilson 1995
Neighborhood Opportunity Index

1. **Institutions**: number & quality of schools, early childhood centers

2. **Influences shaping norms and expectations**: (high school graduation rate, adults with high skill jobs)

3. **Economic Resources**: income, home ownership, employment, public assistance

4. **Environmental Quality**: air, water, soil pollution, hazardous waste sites

5. **Resources for health**: green space, healthy food outlets, walkability

Acevedo-Garcia, 2020, Diversitydatakids.org
<table>
<thead>
<tr>
<th>Percent at opportunity level</th>
<th>NH White</th>
<th>Black</th>
<th>Hispanic</th>
<th>API</th>
<th>AmI/AN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Low/Low</td>
<td>18</td>
<td>67</td>
<td>58</td>
<td>53</td>
<td>62</td>
</tr>
<tr>
<td>Moderate</td>
<td>17</td>
<td>15</td>
<td>18</td>
<td>16</td>
<td>19</td>
</tr>
<tr>
<td>High/Very High</td>
<td>18</td>
<td>19</td>
<td>23</td>
<td>29</td>
<td>18</td>
</tr>
</tbody>
</table>

D. Acevedo-Garcia 2020, Diversitydatakids.org
Segregation is the central driver of the Large Racial/Ethnic Differences in 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

David Cutler & EL Glaeser, Quarterly J Economics, 1997
An Intergenerational Study

- Inequity usu. studied in one generation
- Black boys have lower earnings than white boys in 99% of Census tracts in America (controlling for parental income)

- **Why?** They live in neighborhoods that differ in access to opportunity
- Black boys do well in neighborhoods with good resources (low poverty) *and* good race-specific factors (high father presence, less racial bias)
- The problem: there are essentially no such neighborhoods in America

Inequities by Design

• Racial inequities in SES that matter for life & health do not reflect a broken system

• Instead, they reflect a carefully crafted system, functioning as planned – successfully implementing social policies, many of which are rooted in racism

• They are not accidents or acts of God

• Racism has produced a truly “rigged system”
The House that Racism Built

Racism as a societal system

Social Forces
- Political
- Legal
- Economic
- Religious
- Cultural
- Historical Events

Structural/Institutional Racism (e.g. Segregation)

Individual Discrimination

Williams, Lawrence, Davis, Vu, ‘Understanding how Discrimination Can Affect Health,’ HSR, 2019
Individual Discrimination

Experiences of discrimination are an added source of Toxic Stress
“... Discrimination is a hellhound that gnaws at Negroes in every waking moment of their lives declaring that the lie of their inferiority is accepted as the truth in the society dominating them.”

Martin Luther King, Jr. [1967]
Every Day Discrimination

In your day-to-day life how often do these happen 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?

Williams, Yu, Jackson, Anderson, J Health Psychology, 1997
Everyday Discrimination is Associated With:

-- coronary artery calcification
-- inflammation (C-reactive protein)
-- inflammation (IL-6)
-- blood pressure
-- lower birth weight
-- cognitive impairment
-- poor sleep
-- mortality
-- visceral fat
-- shorter telomere length
-- arterial stiffness
-- incident CVD events

Hidden Ways in which Stressors linked to Race and Racism Adversely affect Health
Worry About Safety of Children

• Study of black women found that most live with a heavy burden of stress due to concern about the racism their children might experience

• Over 70% were very concerned:
  -- that their children might be harmed by the police
  -- that their children might get stopped in a predominantly white neighborhood

Police Stops and Mother’s Health

- A study of over 3,000 mothers in 20 cities (Fragile Families Study)
- 23% of urban youth are stopped by the police by the age of 15
- Mothers of youth who were stopped by the police are more than twice as likely to report both depression- and anxiety-related sleep difficulties.

Dylan Jackson & Kristin Turney, Journal of Urban Health, 2021
Police Violence and Health

• Frequent media reports of incidents of police violence directed to black, Latino, and Native American communities
• These are stressors that negatively affect health of larger community
• Recent national, quasi-experimental study:
• Police killings of unarmed blacks lead to declines in mental health among blacks in general population for 3 months after event
• No effect on whites

Bor, Venkataramani, Williams & Tsai, *The Lancet*, 2018
Consequences of the cumulative exposure to discrimination and other stressors

“Accelerated Aging”
“Premature Aging”
Biological “Weathering”
Earlier Onset of Chronic Disease
Earlier Onset of High Blood Pressure

Behavioral Risk Factor Surveillance System, 2015
The House that Racism Built

Racism as a societal system

Social Forces
• Political
• Legal
• Economic
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• Cultural
• Historical Events

Cultural Racism
(e.g. Stereotypes, Stigma, Implicit & Explicit biases)

Institutional/Structural Racism
(e.g. Segregation)

Individual Discrimination

Williams, Lawrence, Davis, Vu, ‘Understanding how Discrimination Can Affect Health,’ HSR, 2019
Negative stereotypes about race remain deeply embedded in our culture.

These Stereotypes Trigger Racial Discrimination that Reduces Access to Societal Resources.
Racial Bias in Medical 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 of MD & Newborn Survival

- Study of 1.8 million hospital births in Florida from 1992 to 2015
- When cared for by white doctors, black babies are 3 times more likely than white newborns to die in the hospital
- Disparity cut in half when black babies are cared for by a black doctor
- Biggest drop in deaths in complex births and in hospitals that deliver more black babies
- No difference between MD race & maternal mortality

Brad Greenwood, et al. PNAS, 2020
What Can We Do?
Strategy Number 1

Building More Health into the Delivery of Medical Care
Building More Health into the Delivery of Medical Care

Ensuring Access to Care for All
Building More Health into the Delivery of Medical Care

Diversifying the Workforce to meet the Needs of all Patients
Physician Race & Health Care

• A RCT of 1,300 Black men
• Recruited from barbershops and flea markets
• Given a coupon for a free health care screening at a Saturday clinic for
  -- blood pressure,
  -- body mass index,
  -- cholesterol,
  -- diabetes
• Men randomized to see black doctors or not
• $50 incentive for clinic attendance
• Free Uber rides if need for transportation

Alsan, Garrick, Graziani, American Economic Review, 2019
Black Doctors and Black Health

Men who saw a Black Doctor

✓ 29% more likely to talk about other health problems

✓ 47% more likely to do screening for diabetes

✓ 56% more likely to get a flu vaccine

✓ 72% more likely to do screening for cholesterol

Alsan, Garrick, Graziani, American Economic Review, 2019
Progress (or lack thereof) in Medicine

• In 2014, there were 27 fewer African American males in the first year of Medical School than there had been in 1978 (36 years earlier)

• In the mid-1960s, 2.9% of all practicing physicians in the US were black

• In 2019, 5% of MDs were black (6% were Hispanic; 0.3% Indigenous)

AAMC, Altering the Course, 2015; Deville et al. JAMA Internal Med, 2015; AAMC, 2019
Building More Health into the Delivery of Medical Care

Provide 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?
Many opportunities for health care systems and professionals to address the social needs of patients
Medical Legal Partnership

• Enables MDs to refer to unique specialists: on-site attorneys
• Most low-income persons face legal issues that affect their quality of life and their management of disease
• Adding lawyers to medical team can screen and assist families for these social problems that affect care
• Stressors addressed: unhealthy housing, immigration, income, food, education access, disability, family law
• Child with asthma, in moldy apartment, will not get well, regardless of meds, if conditions not improved

Zuckerman et al. Pediatrics, 2004
Strategy Number 2

Identifying and Supporting Protective factors and Resilience Resources
Discrimination, Social Ties, Biomarkers

- 331 Black adolescents in 9 rural counties in Georgia

- **Discrimination assessed at** age 16, 17, and 18

- Stably high levels of discrimination as a teen linked to higher biomarkers (overnight cortisol, epinephrine, norepinephrine, SBP, DBP, CRP, BMI) at age 20

- Social support: 11 item caregiver emotional & instrumental support and 4 item measure of peer support

- High social support (caregiver and peer) erased the negative effect of high discrimination on biomarkers

Gene Brody et al., 2014., Child Development
Religion & Discrimination: A Balm in Gilead?

• Prospective analyses of the National Study of Black Americans found that multiple aspects of religious engagement:
  -- religious attendance
  -- church-based social support
  -- seeking religious guidance in everyday life

• reduced the negative effects of experiences of discrimination on mental health

Ellison, Musick & Henderson, 2008
Moving Further Upstream: Implementing Policies to Reduce Social Inequities in Health
There’s More to Health than Health Care
Strategy Number 3

Create Communities of Opportunity to minimize, neutralize and dismantle the systems of racism that create inequities in health
Reducing Inequities

Address Place-Linked Determinants of Health

- Enrich the quality of neighborhood environments
- Increase economic development in poor areas
- Improve housing quality and the safety of neighborhood environments
Communities of Opportunity

• Invest in early Childhood
• Reduce Childhood Poverty
• Enhance Income and Employment Opportunities for Youth and Adults
• Improve Neighborhood and Housing Conditions
• Enhance economic opportunities to build strong families/reduce disparities in marriage
• Raise Awareness levels of Racial Inequities and Build Political Will to Address them

David R Williams & Lisa Cooper, Int J Environmental Res & Public Health, 2019
Carolina Abecedarian Project (ABC)

- 1972-77, economically disadvantaged children, birth to age 5, randomized to an early childhood program
- 80% of children Black
- Program offered a safe and nurturing environment, good nutrition and pediatric care
- At age 21, fewer symptoms of depression, lower marijuana use, more active lifestyle, and better educational & vocational assets
- In mid-30’s, lower levels of risk factors for CVD & metabolic disease. Effects stronger for males

Campbell et al. AJPH, 2008; Campbell et al, Science, 2014
Carolina Abecedarian Project (ABC)

- Example: systolic BP 143 mm Hg in male controls vs. 126mm Hg in the treatment group
- One in 4 males in control group met criteria for metabolic syndrome compared to none in the treatment group
- Lower BMI at zero to 5 yrs equals a lower BMI in their 30s

Campbell et al. AJPH, 2008; Campbell et al, Science, 2014
Communities of Opportunity

Improve Neighborhood and Housing Conditions
The Moving to Opportunity Program randomized families with children in high poverty neighborhoods to move to less poor neighborhoods. 10 to 15 years later, movers had lower levels of obesity, severe obesity & diabetes risk (HbA1c). Ludwig et al. NEJM, 2011
A Striking Example of Neighborhood Transformation:

Atlanta’s East Lake, district
Implementing the Purpose Built Model

A Defined Neighborhood

Mixed Income Housing
Cradle-to-College Education Pipeline
Community Wellness

A Strong Lead Organization

Strong local leadership. A proven national model. Best in class partners.
East Lake Meadows - 1995

**Safety**
- 18x national crime rate
- 90% of families victims of a felony each year
- $35 million a year drug trade

**Housing**
- 100% public housing
- 1400 residents in 650 apartments
- 40% of units unlivable

**Employment**
- 13% employment
- 59% of adults on welfare
- Median income of ~$4,500

**Education**
- One of lowest performing schools in Georgia
- 5% of 5th graders meet state math standards
- 30% graduation rate
Villages of East Lake - Present

Safety
- 73% reduction in crime
- 90% lower violent crime

Housing
- High-quality, privately managed housing
- Mixed-income (50% public housing, 50% market rate)
- 1400 residents in 542 apartments

Employment
- 75% employment in public housing, remainder in job training, elderly or disabled
- Median income of ~$15k in public housing households

Education
- ~1500 in Pre-K through 10th
- 98% meet or exceed state standards
- A top performing school in Atlanta and the state
Principles of Purpose Built Communities

• Address all challenges faced by poor communities simultaneously
  • (work across silos of education, housing, public safety, child care, employment, and nutrition)
• Comprehensive, integrated, place-based solutions
• Independently run, cradle-to-college high-quality education
• Quality mixed-income housing
• Affordability for low-income households
• Services: employment, social services, workforce development, recreation, wellness

Benefits of Inclusive Policies

• The creation of communities of opportunity to reverse racial injustice will be beneficial to people of all races
• Policies that benefit communities of color will improve conditions for everyone, including many poor and working class whites

"True compassion is more than flinging a coin to a beggar; it understands that an edifice which produces beggars needs restructuring."

Martin Luther King, Jr
“It may well be that we will have to repent in this generation. Not merely for the vitriolic words and the violent actions of the bad people, but for the appalling silence and indifference of the good people...

Martin Luther King
The time has come for us to build a healthier America, where:

Every child can develop normally, free from poverty, abuse and neglect

Photos Source: MS Online Pictures
We can build a healthier America where:

Every child can be ready for academic success when they begin school, and have access to school environments that support academic, emotional, and physical well-being.

Photos Source: MS Online Pictures
We can build a healthier America where:

Everyone can breathe clean air that is free from tobacco and other pollutants

Photo Source: MS Online Pictures
We can build a healthier America where:
Everyone has access to and can afford to obtain nutritious food
We can build a healthier America where:

Everyone has the opportunities to be physically active

Photos Source: MS Online Pictures
We can build a healthier America where:

Everyone can live in well-maintained neighborhoods, that are safe and that have access to appropriate goods and services.

Photos Source: MS Online Pictures
We can build a healthier America where:

Everyone has access to high-quality, affordable housing
We can build a healthier America where:

Everyone has access to reliable, safe, affordable and accessible means of public or private transportation

Photo Source: MS Online Pictures
We can build a healthier America where:

Everyone has received the training and skills to create business opportunities or to obtain a decent job that pays a living wage.
We can build a healthier America where:

Everyone can work in healthy occupational environments, free from physical or chemical exposures that are harmful to health.
We can build a healthier America where:

Everyone has access to high-quality medical care
We can build a healthier America where:

Everyone has equitable opportunities and is hopeful and optimistic about the future

Photos Source: MS Online Pictures
We can build a healthier America

Yes, Together, We Can!