

# Social Inequities in Health:

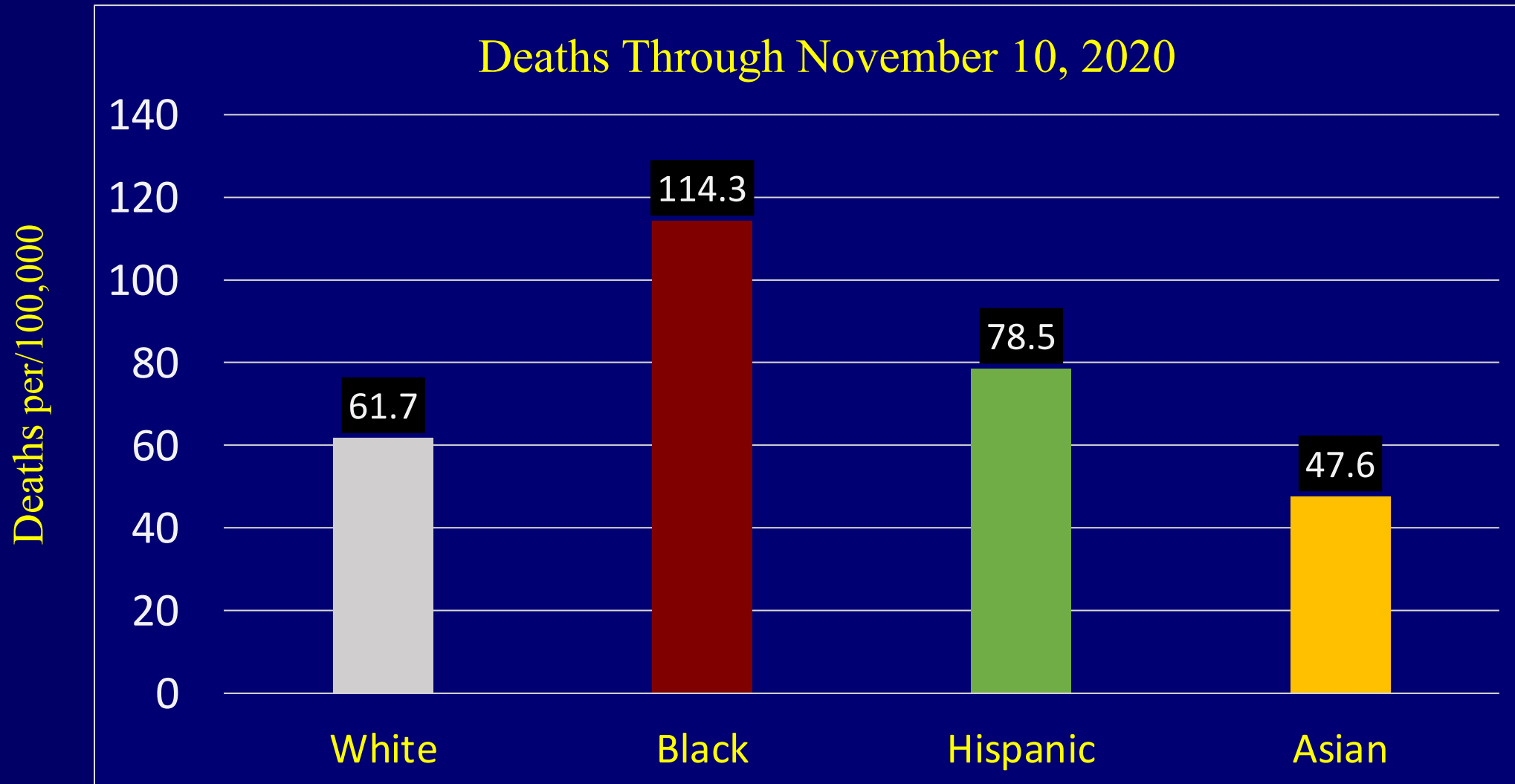
*And How We Can Effectively Address Them*

David R. Williams, PhD, MPH

Florence & Laura Norman Professor of Public Health  
Chair, Department of Social and Behavioral Sciences  
Professor of African & African American Studies and of  
Sociology

Harvard University

# Deaths of Covid-19



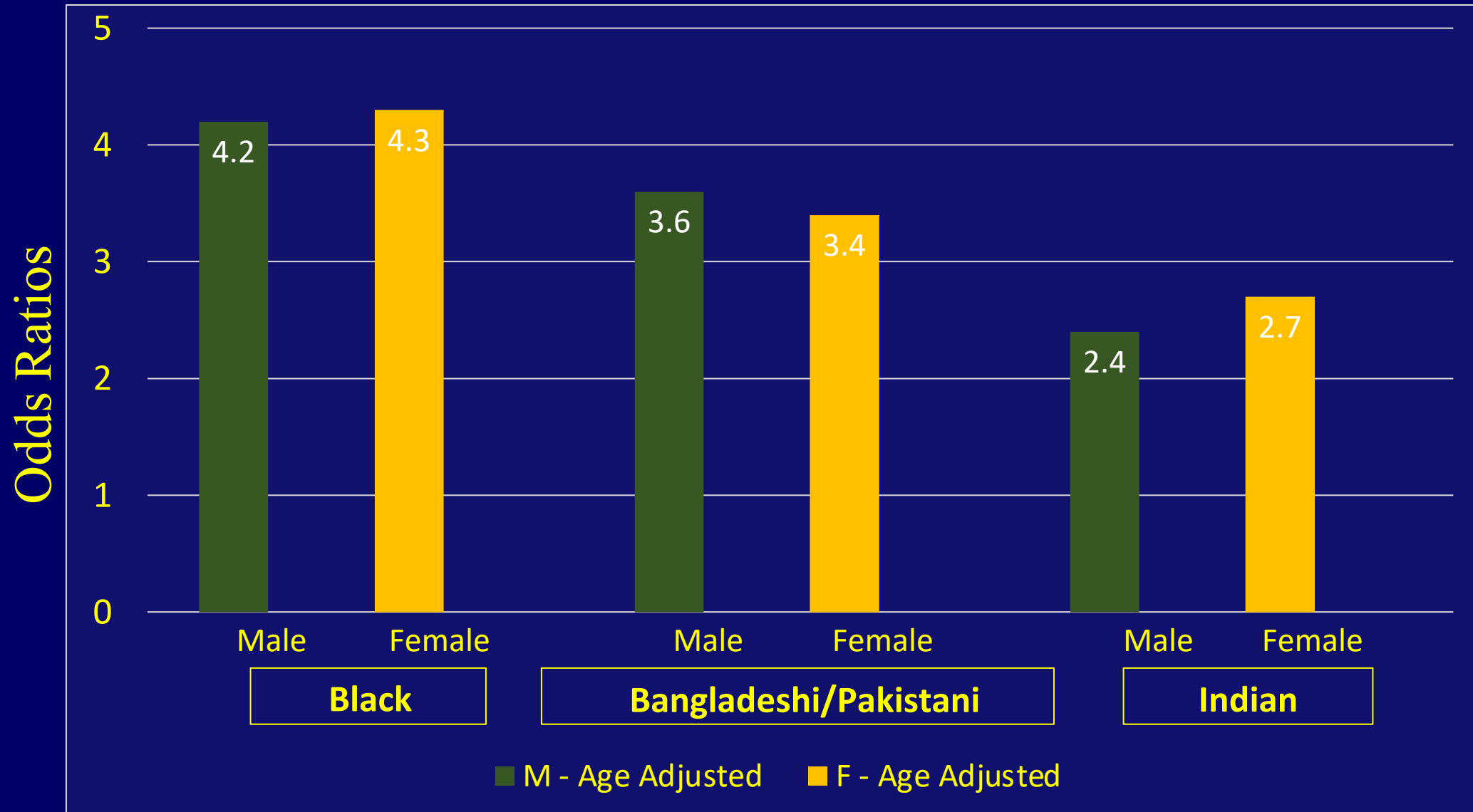
# Covid-19 Deaths by Race

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- If all racial/ethnic groups had died at the same rate as white Americans, at least:
  - 21,200 Black Americans
  - 10,000 Latino Americans, and
  - 1,000 Indigenous Americanswould still be alive



# Covid-19 Deaths, Relative to Whites, UK



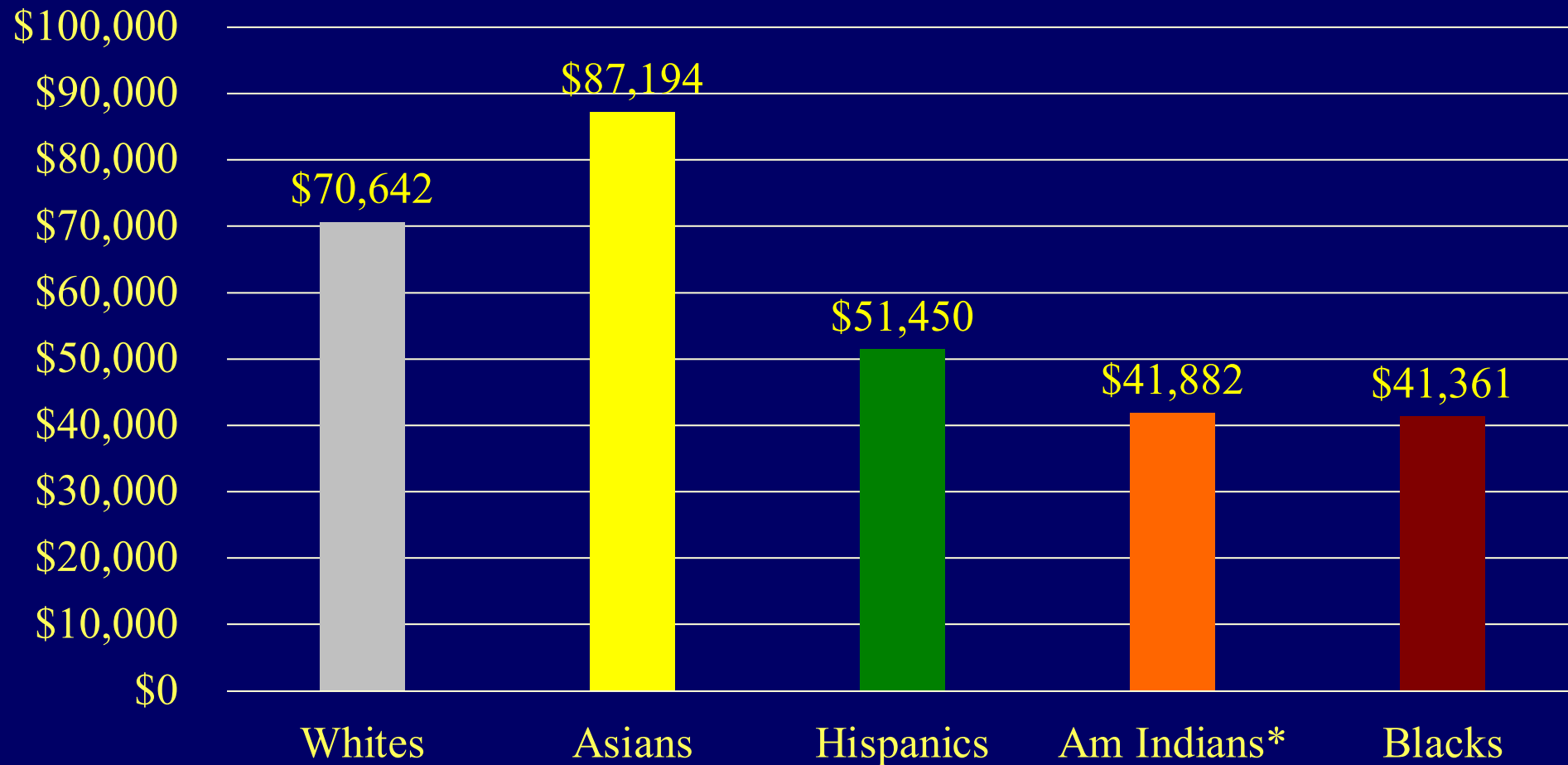
# Making Sense of Racial Inequities

There are large Inequities in Health by  
Socioeconomic Status (SES) in the U.S. and  
elsewhere

# Median Household Income and Race, 2018

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Racial Differences in Income are Substantial:



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U.S. Census Bureau, Semega et al., 2019; \*for 2017; US Census Bureau, ACS, 2017

# Median Household Income and Race, 2018

Racial Differences in Income are Substantial:

**1 dollar**



**Whites**

**1.23 dollar**



**Asians**

**73 cents**



**Hispanics**

**59 cents**



**Am Indians\***

**59 cents**



**Blacks**



Large racial gaps in income markedly  
understate the racial gap in economic status

# Wealth versus Income

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- Home ownership
- Other real estate
- Checking, savings, money market accounts, CDs
- Vehicles
- Businesses
- IRA/Keogh, stocks, bonds, mutual funds, treasury bills
- Subtracting mortgages and debt



# Median Wealth and Race, 2016

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For every dollar of wealth that Whites have,



Blacks have 10 cents



Latinos have 12 cents



Other Races have 38 cents



# What Low Economic Status Means

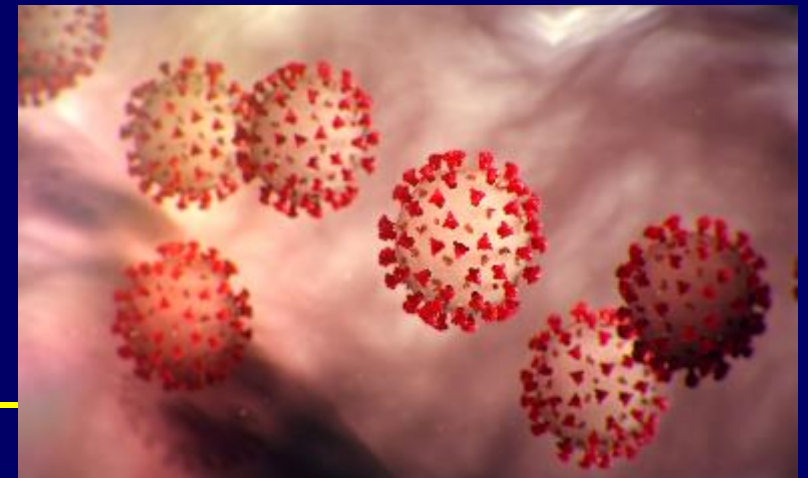
We are in the same storm but in different Boats



# Low Income and Covid-19

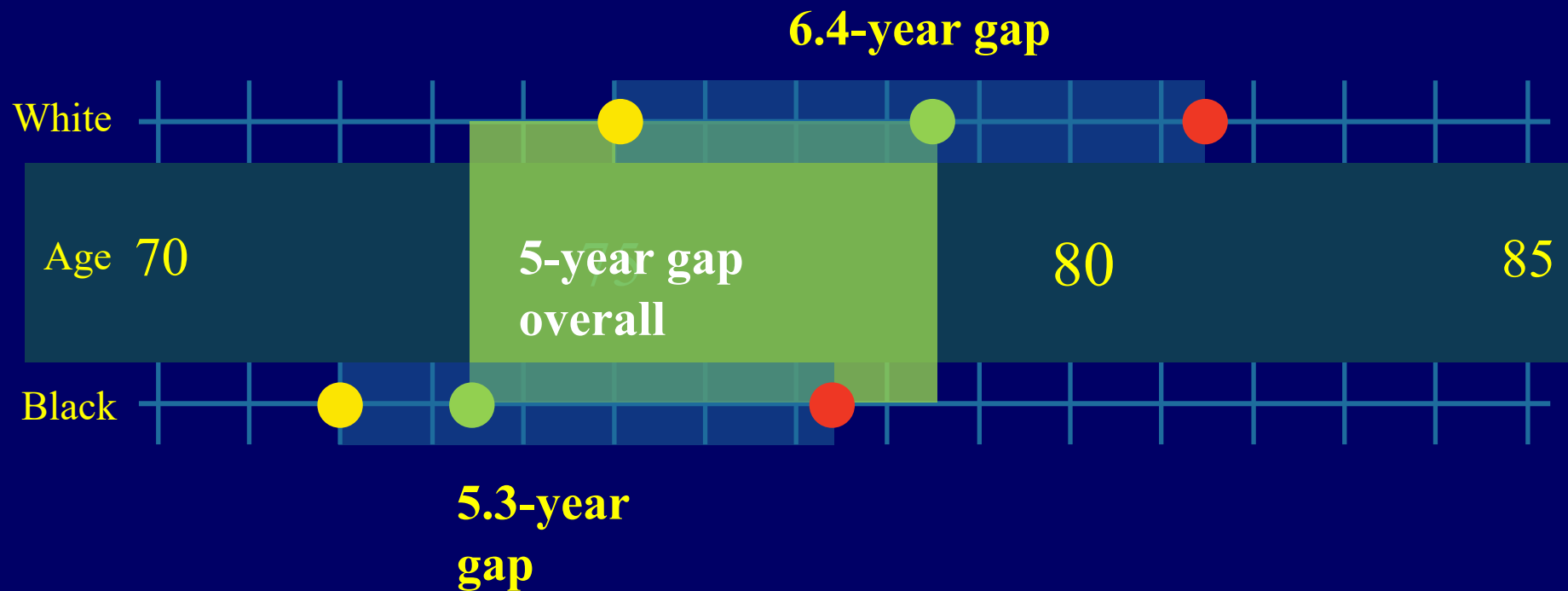
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- Not everyone can work from home
- For low-wage, non-salaried workers with unpredictable and unstable hours, working from home is a luxury
- In poor neighborhoods, with overcrowded housing, social distancing is not a viable option.
- Low income & minority workers overrepresented among essential workers – our drivers, building maintenance staff and grocery store employees.
- People who struggle financially often struggle to live a healthy life



# **Added Burden of Race**

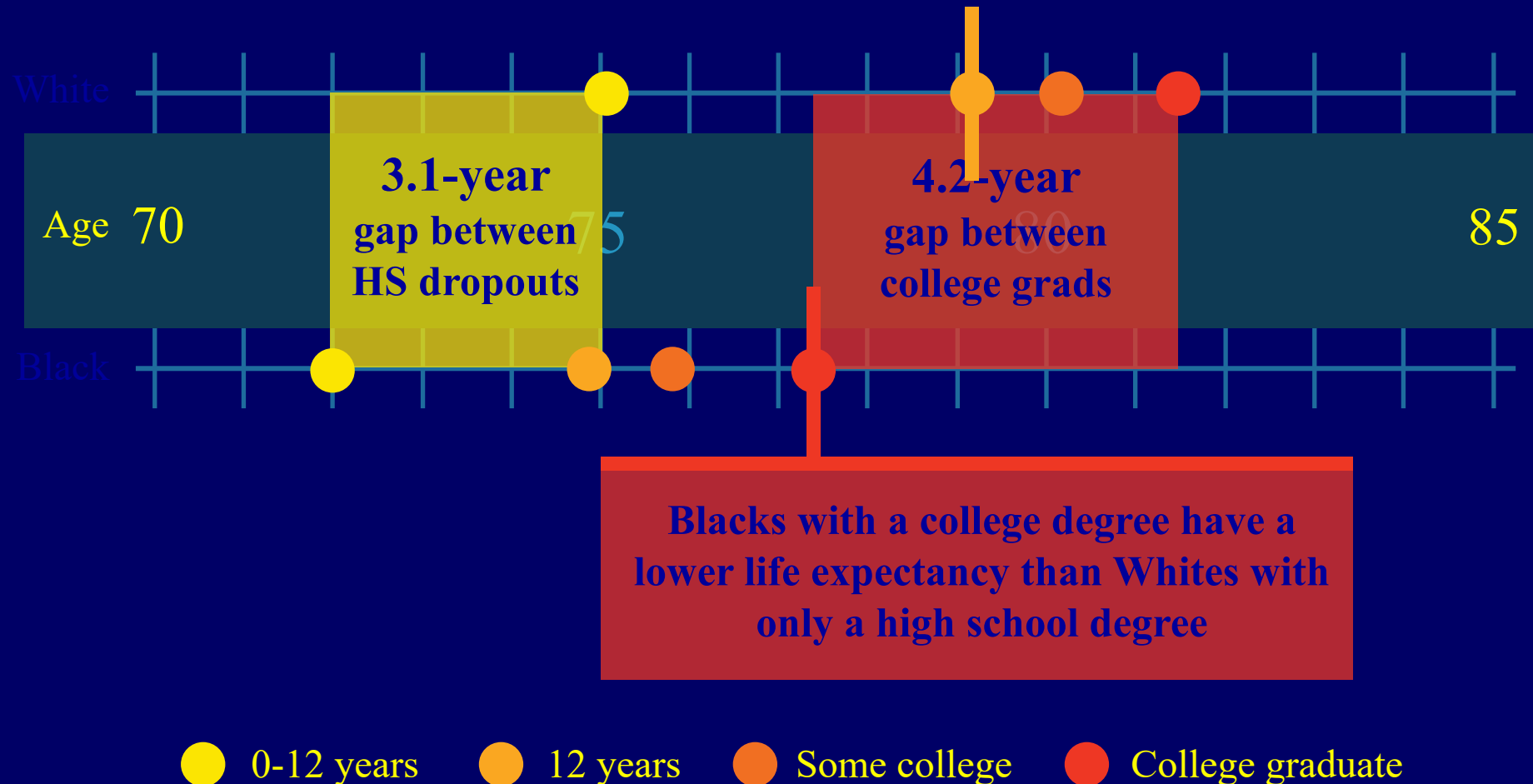
# Life Expectancy at Age 25 Based on Level of Education



● Overall ● 0-12 years ● College graduate

# Life Expectancy at Age 25

## Race Still Matters





# Why Does Race Still Matter?

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Could racism be a critical missing piece of the puzzle to understand the patterning of racial disparities in health?

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*Individual vs Institutional/Structural  
Discrimination*

# Institutional Discrimination: *Waiting to Vote*

Average number of minutes, 2012 Presidential Election

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African Americans  23 min

Latinos  19 min

Asian Americans  15 min

Native Americans  13 min

Whites  12 min

# Institutional Processes

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- Length of time waiting to vote linked to the residence of the voter and the policies and procedures (budgeting and space constraints and local administrative procedures) linked to place:
  - How many voters being served by a polling site?
  - How many precincts in a given area?
  - Staffing of a precinct affects how long it takes to vote
-

# How Institutional Discrimination Contributes to Racial Inequities

# Institutional Racism: Segregation

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Residential Segregation is  
a striking legacy of racism

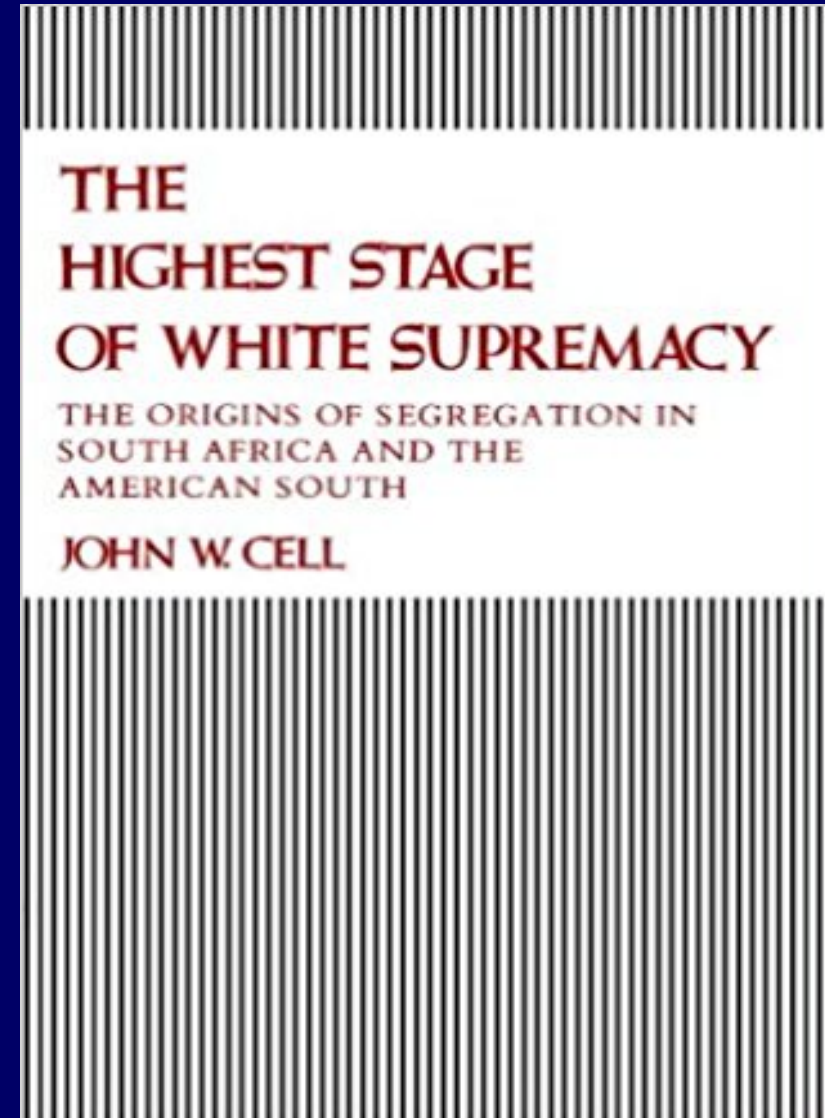


- **As is the** forced removal and relocation of indigenous peoples
  - **The institutionalized isolation and marginalization of racial populations has adversely affected life chances in multiple ways**
-

# Racial Segregation Is ...

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



# How Segregation Works

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Segregation is like a toxic emission produced by an industrial plant. Like carbon monoxide it is often imperceptible but causes illness and death as valuable resources disappear:

- Quality schools
- Safe playgrounds
- Good jobs
- Healthy air, water, etc.
- Safe housing
- Transportation
- Healthcare





# Racial Differences in Residential Environment

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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.”



# Neighborhood Opportunity Index

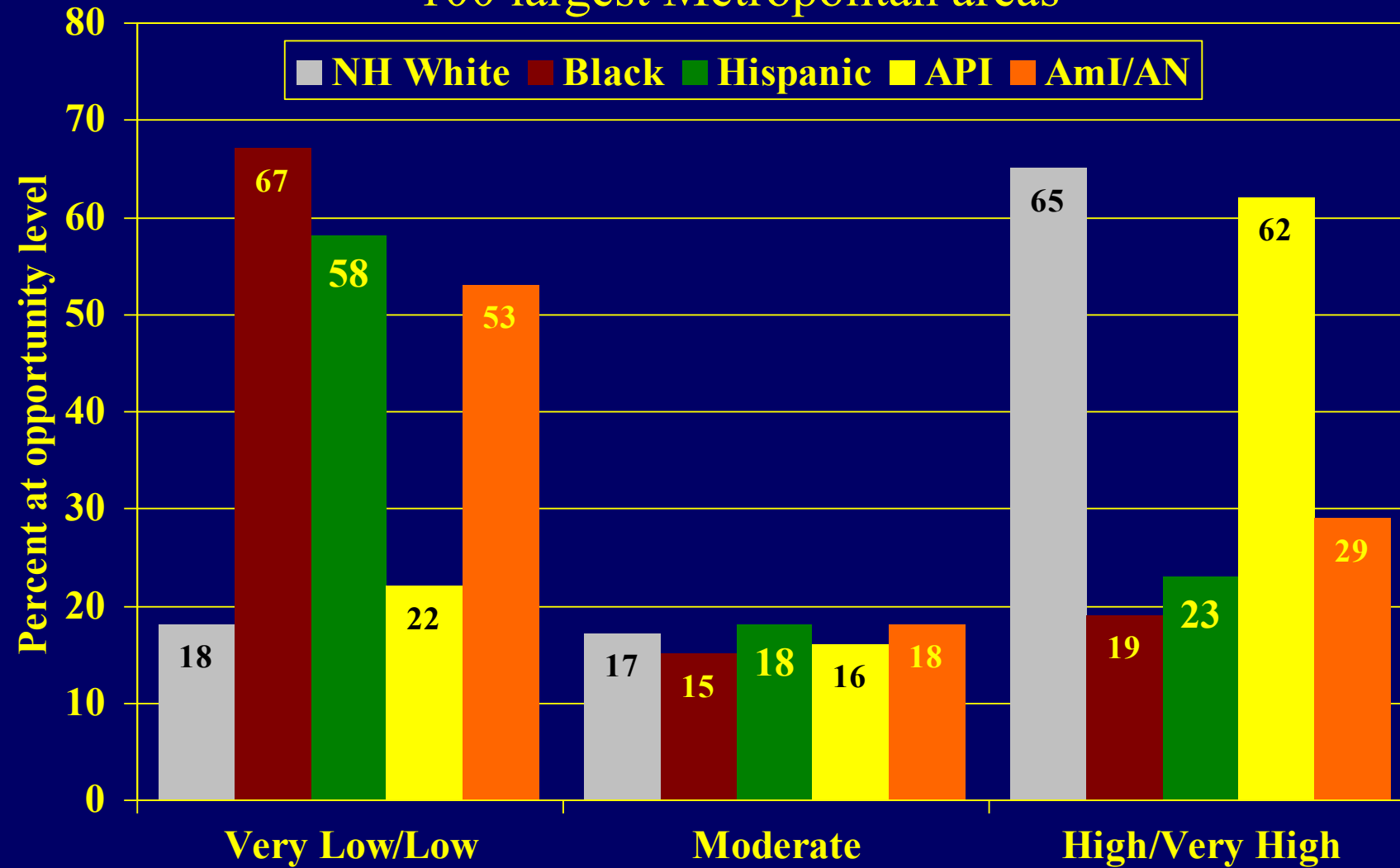
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1. **Institutions:** number & quality of schools, early childhood centers
2. **Influences shaping norms and expectations:** (high school graduation rate, adults with high skill jobs)
3. **Economic Resources:** income, home ownership, employment, public assistance
4. **Environmental Quality:** air, water, soil pollution, hazardous waste sites
5. **Resources for health:** green space, healthy food outlets, walkability



# Percentage of Children at Neighborhood Opportunity Level

100 largest Metropolitan areas



*Segregation Contributes to Large  
Racial/Ethnic Differences in SES*

# Residential Segregation and SES

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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



# An Intergenerational Study



- Inequity usu. studied in one generation
- Intergenerational analysis, linking parents & kids, US pop, 1989-2015
- 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

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- 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”



# Race/Ethnicity, Stress and Health

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Lower economic status, living in disadvantaged, segregated, neighborhoods and exposure to racism leads to higher levels of:

1. Economic Stressors
2. Psychosocial Stressors
3. Racial Discrimination
4. Physical & Chemical Stressors





# Air Pollution and Covid-19

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- Air pollution is associated with hypertension and asthma
- These are linked to more severe severe cases of Covid-19
- Air pollution linked higher death rates from Covid-19
- Poor & minority communities at higher risk (power plants, industries, car and truck emissions)



*Interpersonal Discrimination  
is a potent type of stress that is an  
important pathway linking racism to  
health*

# Blacks & US-born Latinos: Higher Levels of:

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... Everyday Discrimination (examples):

- Treated with less courtesy/respect than others
- Receive poorer service at restaurants/stores
- People act as if they are afraid of you
- People act as if they think you are not smart
- You are called names or insulted



# Everyday Discrimination & Adult Health

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Incident

- Metabolic Syndrome
- CVD outcomes
- Breast cancer
- Type 2 diabetes

Nicotine dependence  
Binge eating  
Smoking & drug use  
At-risk drinking

CAC (coronary artery calcification)  
IMT (intima media thickness)  
Visceral fat  
HRV  
Atrial fibrillation

Adult onset asthma  
Nocturnal amb. BP  
Cognitive function  
Increases in SBP, DBP

Sleep duration  
Sleep quality

Inflammation (CRP, IL-6, e-selectin)  
Cortisol  
Telomere length  
Allostatic load

Waist circumference  
Obesity  
Weight gain

Breast cancer screening  
Cervical cancer screening  
Lower adherence  
Delays in seeking treatment

DSM Disorders  
Emotional Distress  
Well-being  
Changes in personality

# The Consequences

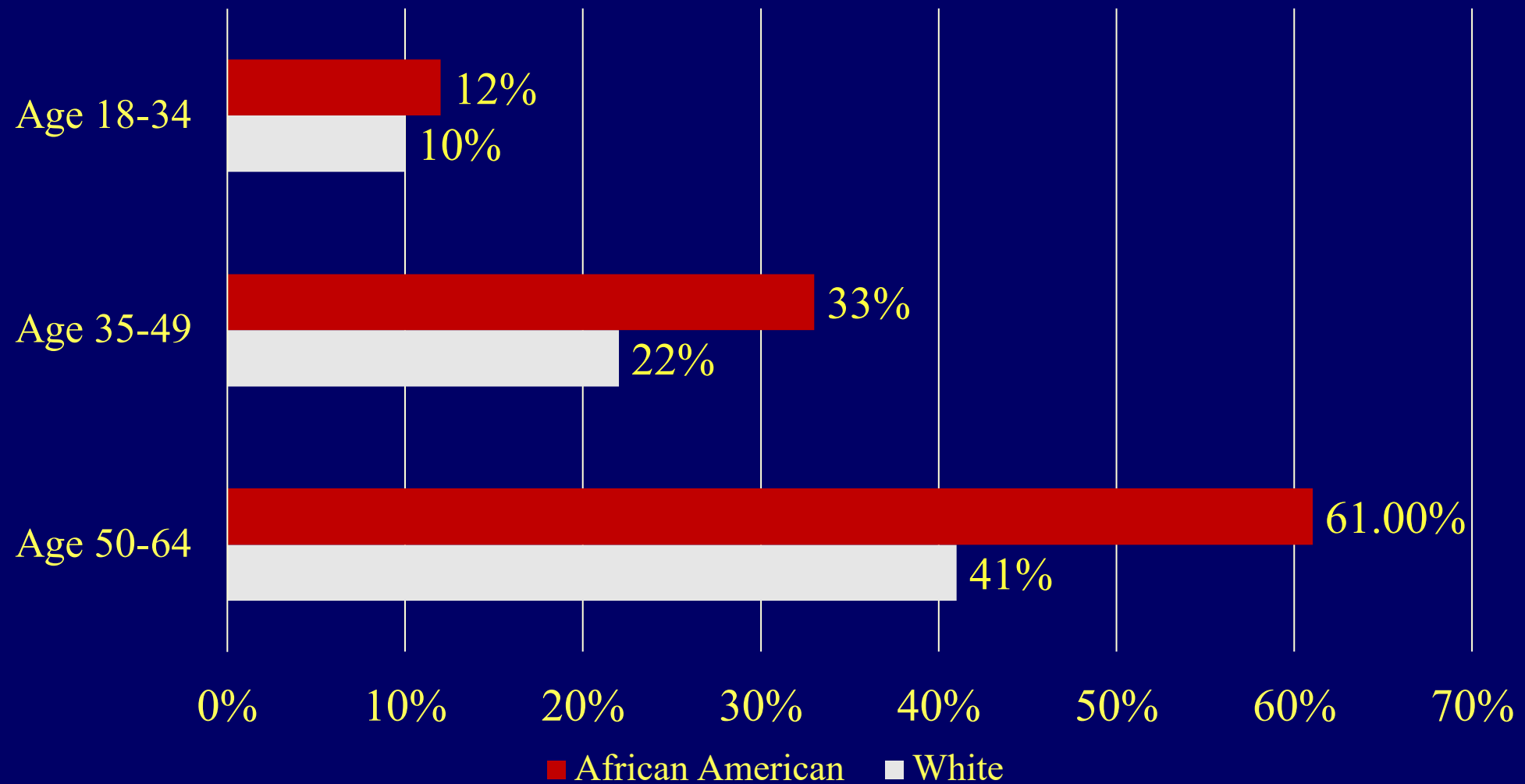
*“Accelerated Aging”*

*“Premature Aging”*

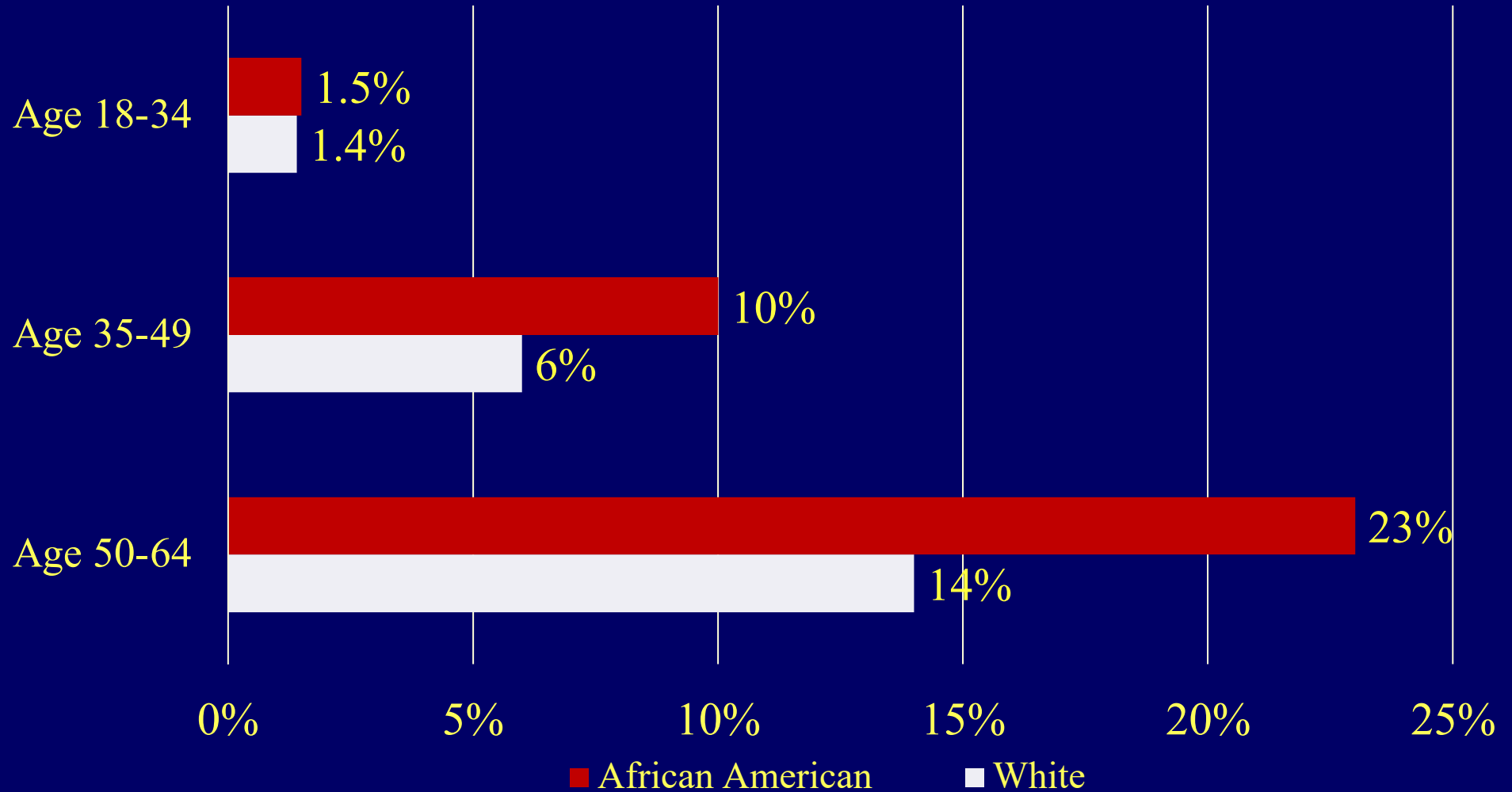
*Biological “Weathering”*

*Earlier Onset of Chronic Disease*

# Earlier Onset of High Blood Pressure



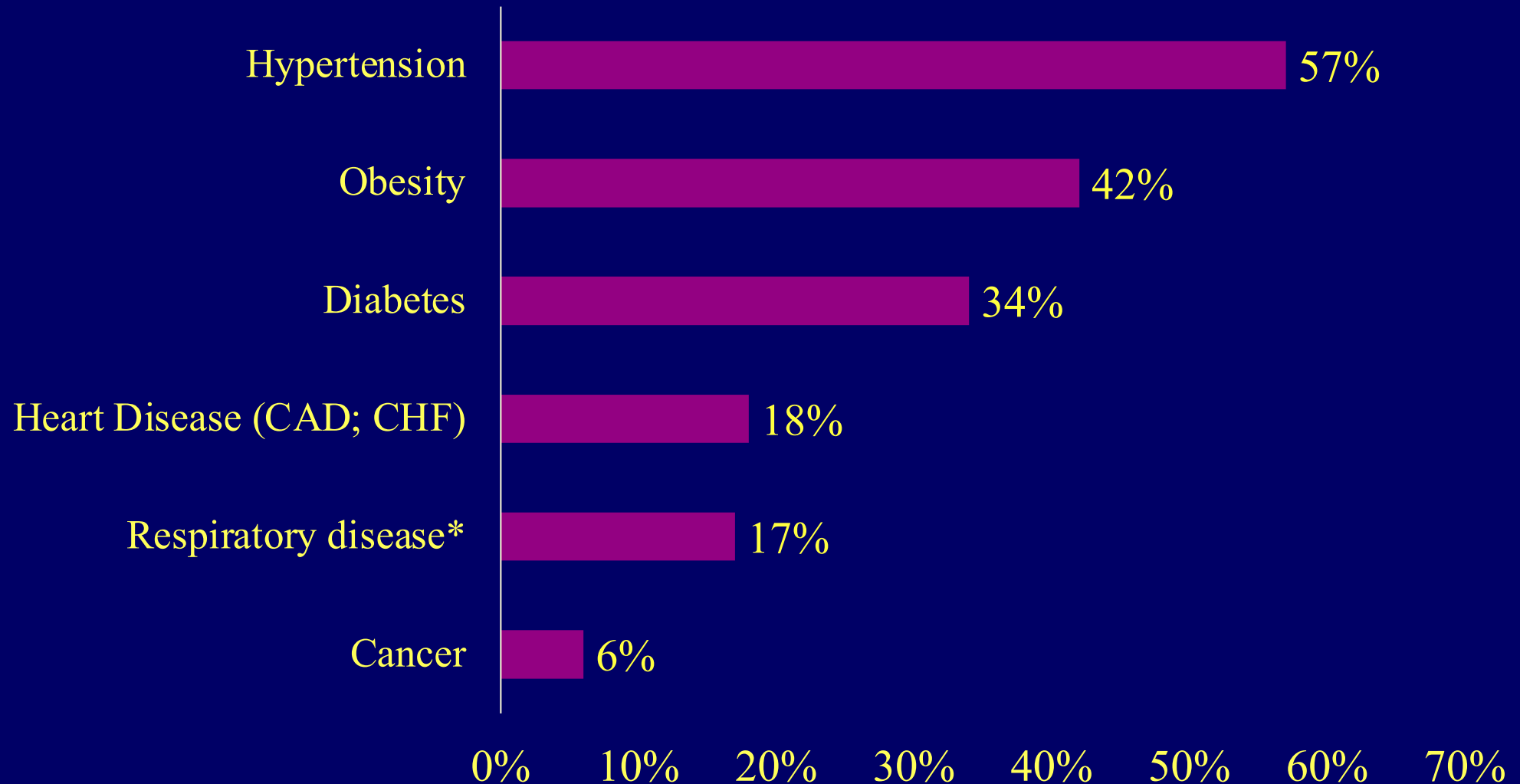
# Earlier Onset of Diabetes



# Comorbidities of Covid-19 Patients

5,700 patients, 12 NY hospitals, March 1 to April 4; Av age :63

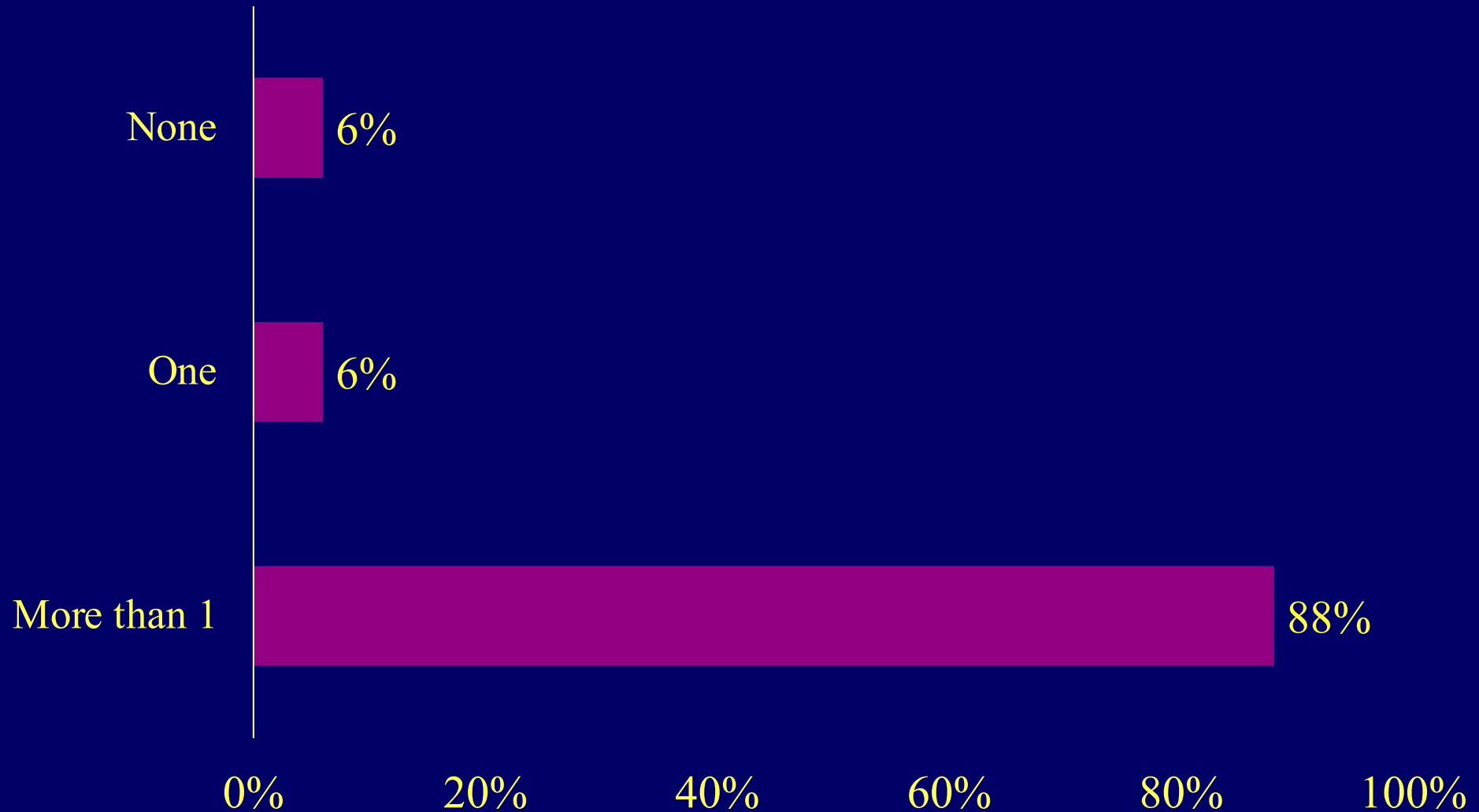
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# Number of Comorbidities, Covid-19 Patients

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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**

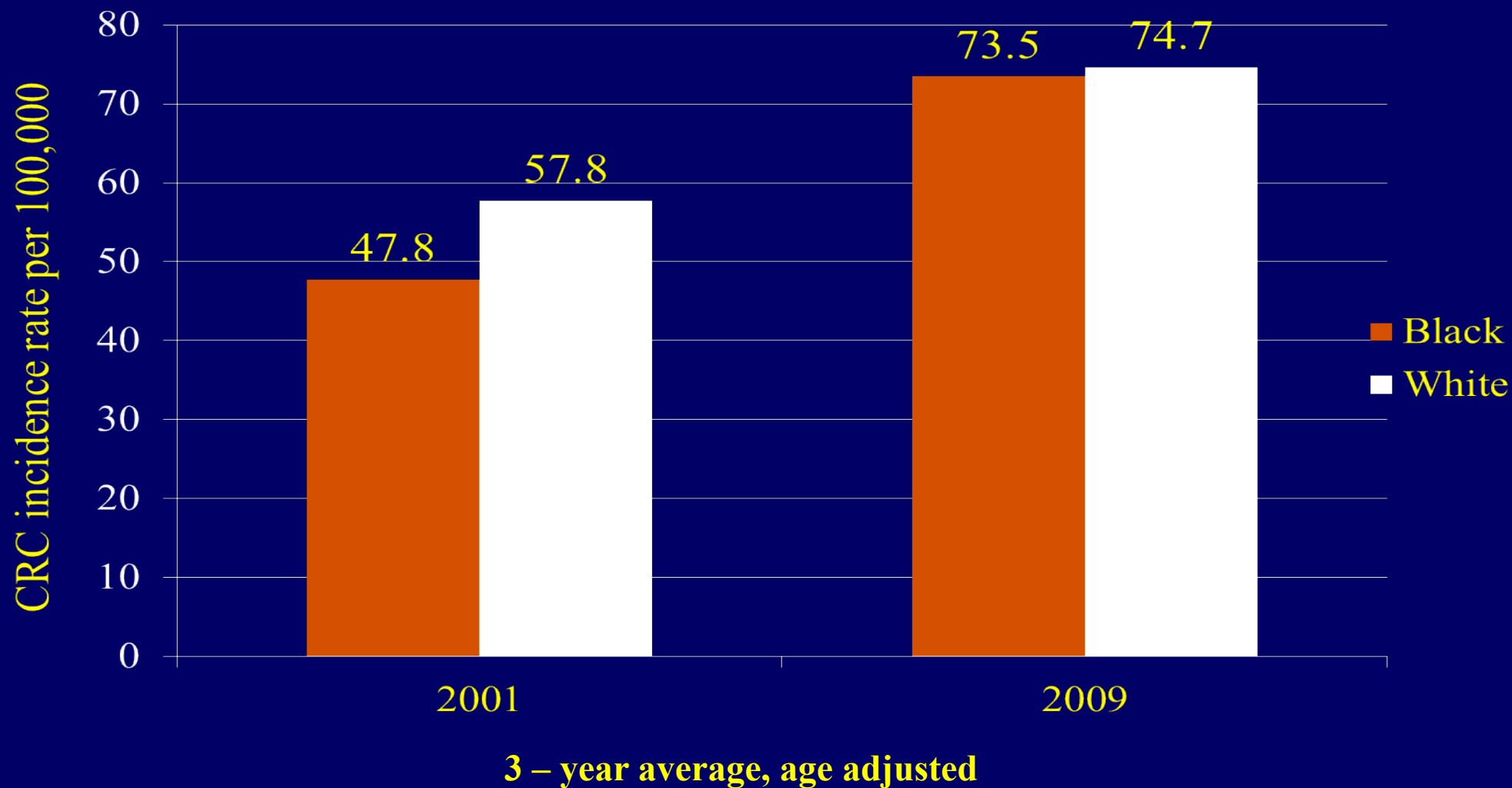
Ensuring Access to Care for All

# Colorectal Cancer (CRC) Intervention

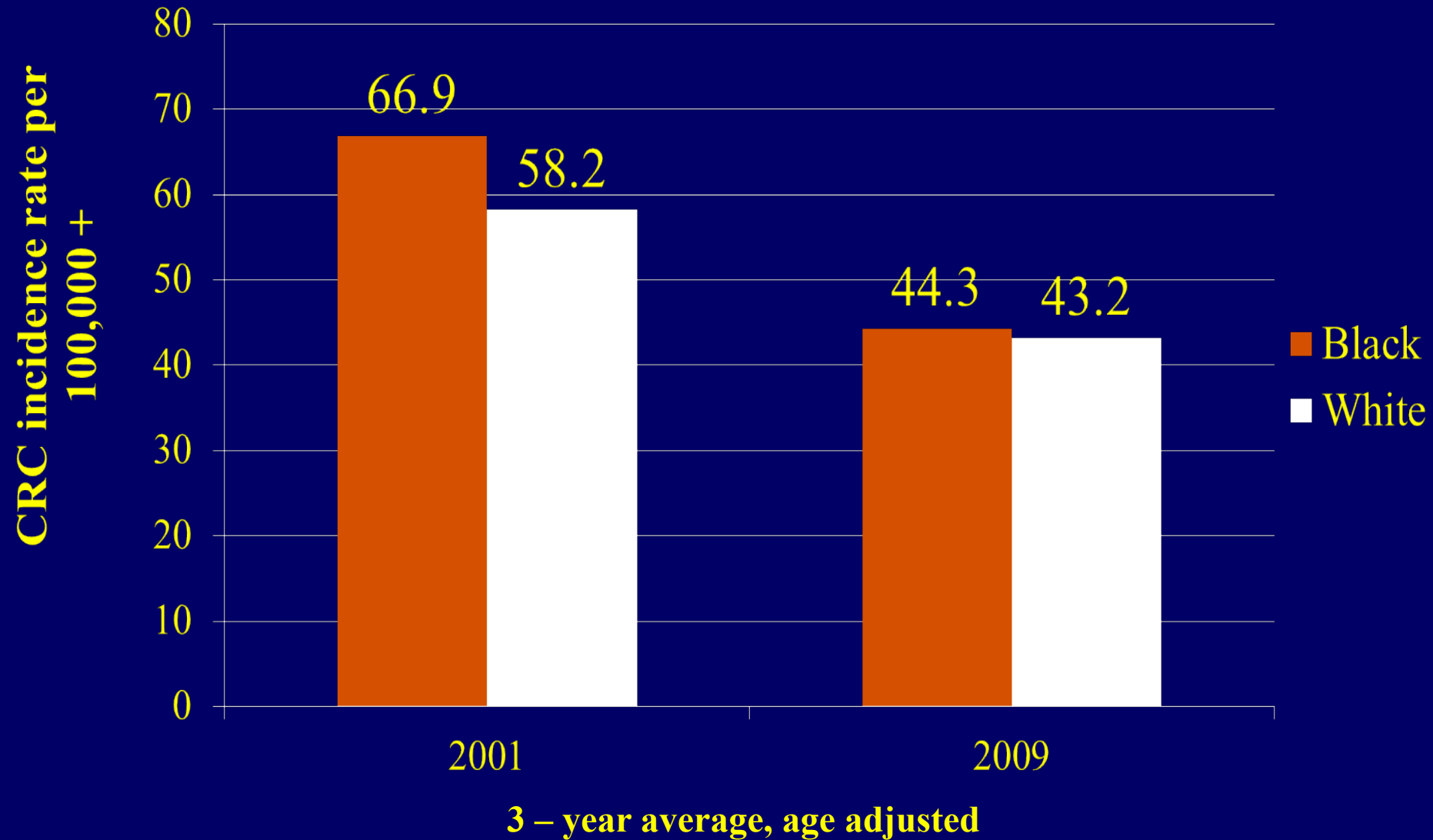
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- State of Delaware fully funds a CRC screening program promoting colonoscopy in 2002
- Provides reimbursement for uninsured residents up to 250% of Federal poverty level (FPL)
- Other state residents eligible through other insurance
- Cancer screening nurse navigator system added in 2004, at each of the 5 acute care hospital sites
- Cancer treatment program added in 2004: covers costs of cancer care for 2 years for newly diagnosed uninsured if income under 650% FPL
- Special outreach efforts for African Americans

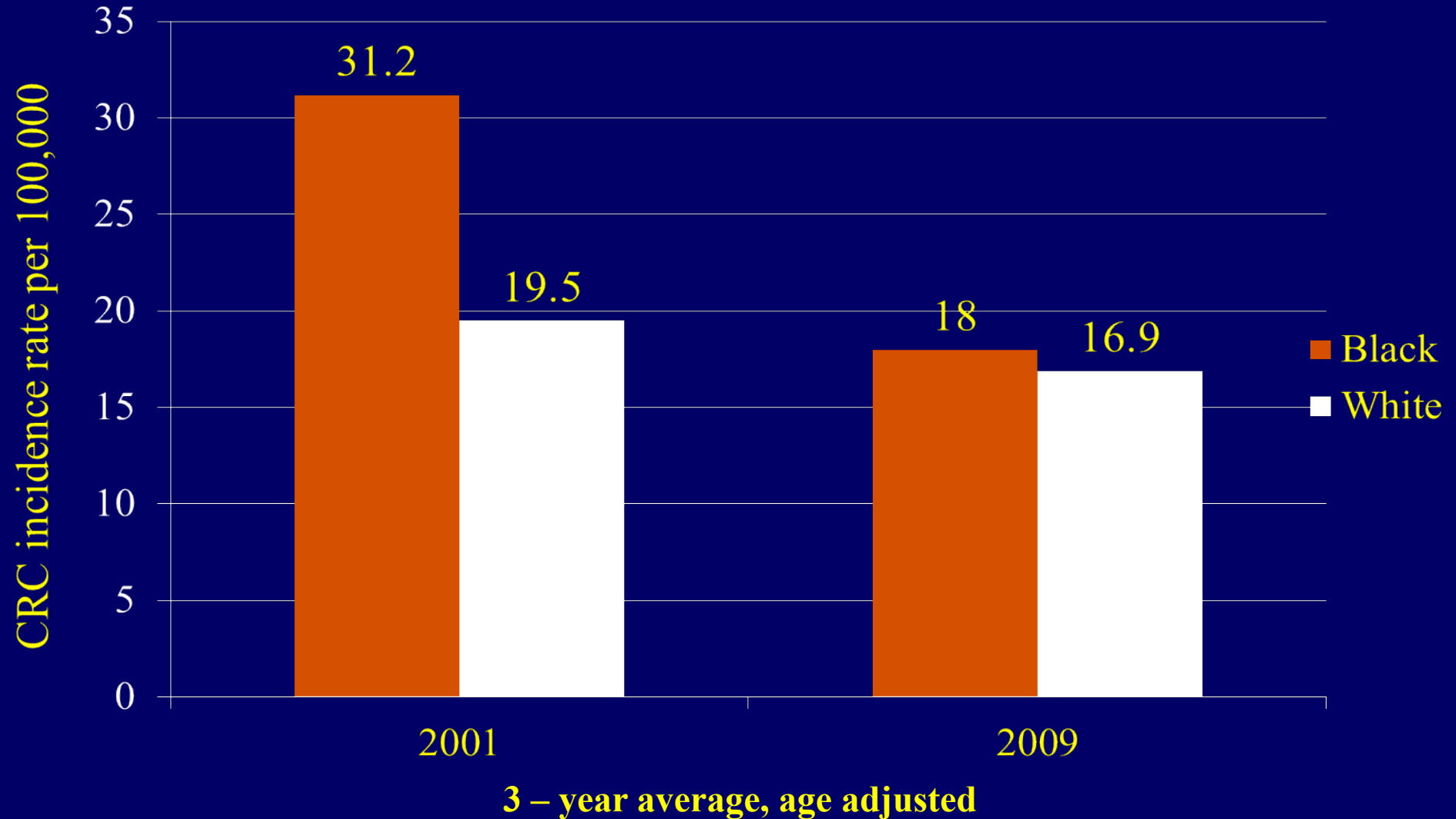
# Eliminated screening disparities



# Equalized Incidence rates



# Near Elimination of Mortality Difference





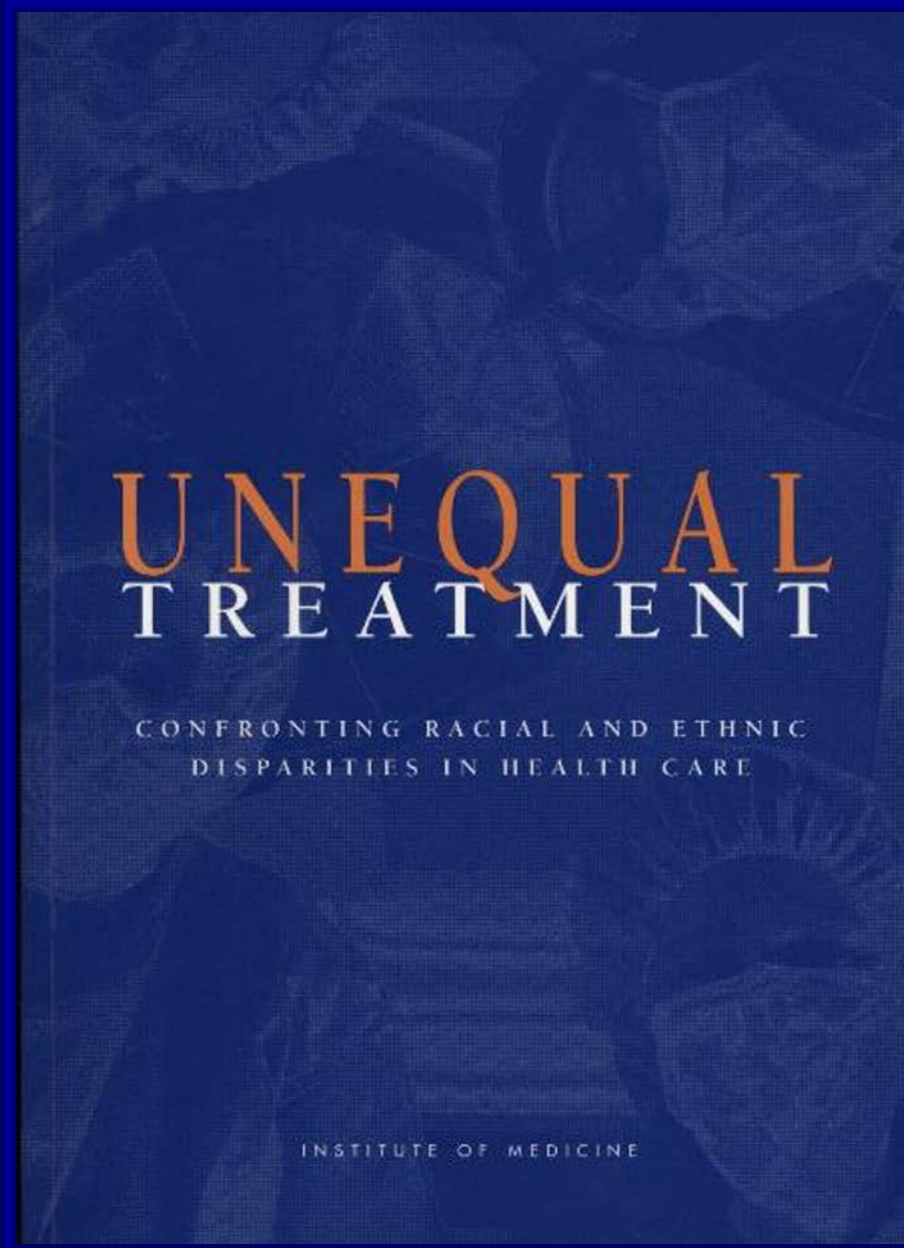
# Colorectal Cancer: Cost Savings

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- The annual bill for the screening and the treatment program was \$7 million
- The annual savings from reduced incidence of Colorectal Cancer was \$8.5 million

# Strategy: Building More Health into the Delivery of Healthcare

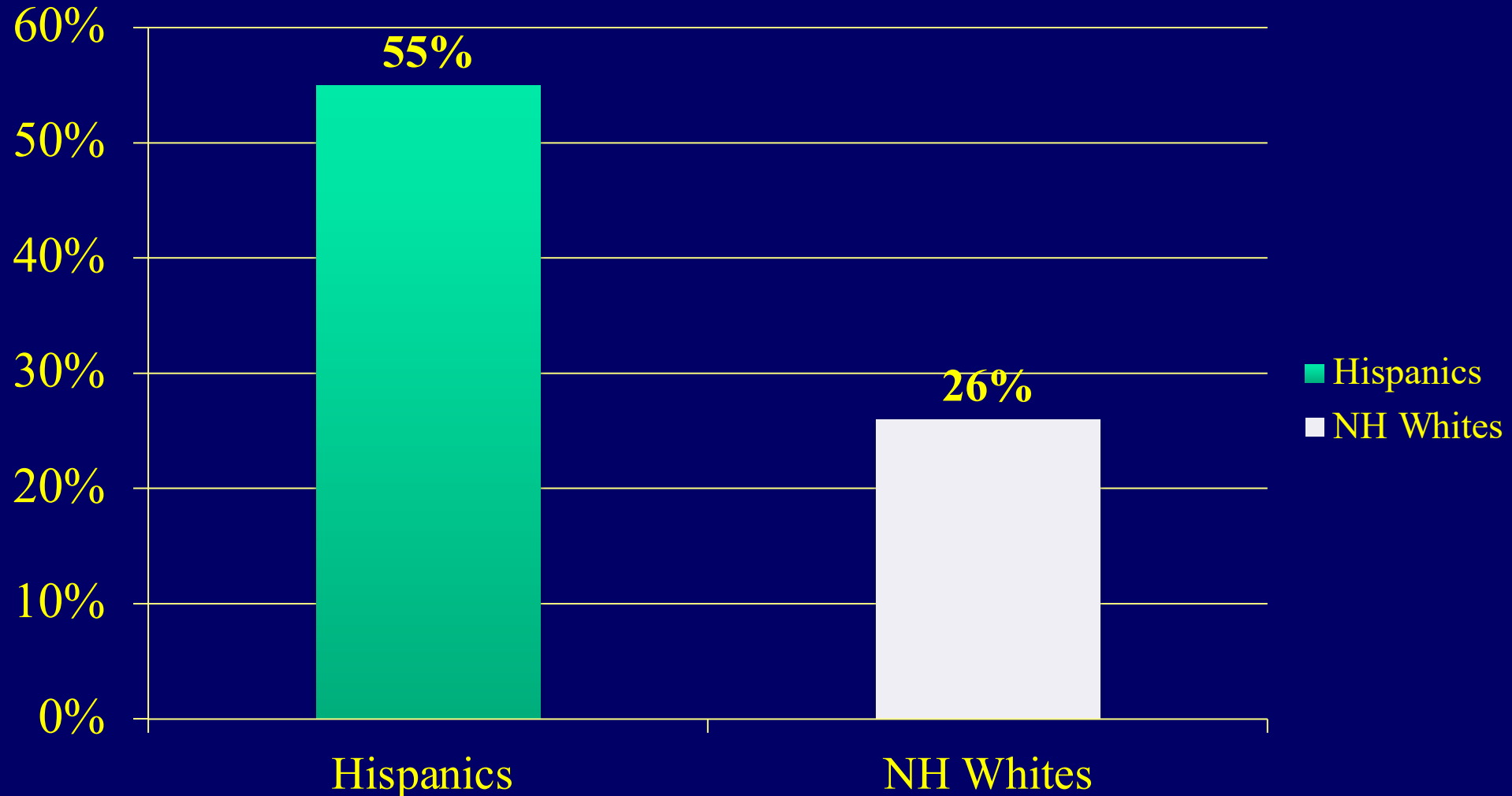
Eliminating Inequities in the Receipt of High Quality Care



# Racial Bias in Medical Care

# Ethnicity and Pain Medicine

Percent of Patients with broken bone receiving no analgesia



# **Disparities in the Clinical Encounter: The Core Paradox**

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**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?**

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# Unconscious Discrimination

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- **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**
-

# Implicit Bias & Care for Blacks

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More Implicit bias associated with:

- more clinician verbal dominance\*
- less patient centered dialogue
- lower patient positive affect\*
- lower perception of respect from clinician\*
- less patient liking of clinician\*
- lower trust and confidence in clinician
- less likely to recommend clinician to others\*
- less perception of clinician as participatory\*
- longer visits and slower speech (compensation for mistrust?)



# Implicit (unconscious) Bias

Can be reduced under certain conditions



# Propranolol Intervention?

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- Propranolol is a beta blocker that reduces emotional conditioning and amygdala responses to visual emotional stimuli (e.g. facial expressions)
- Randomized double blind, parallel group, placebo controlled design of a single oral dose of Propranolol (40mg) of 36 whites in the U.K.
- Compared to placebo, propranolol eliminated implicit bias and reduced heart rate, but had no effect on explicit bias (measured by feeling thermometer: warmth to blacks, whites, homosexuals, Muslims, Christians, drug addicts)



## Reducing Racial Bias Among Health Care Providers: Lessons from Social-Cognitive Psychology

*Diana Burgess, PhD<sup>1,2</sup>, Michelle van Ryn, PhD, MPH<sup>1,3</sup>, John Dovidio, PhD<sup>4</sup>, and Somnath Saha, MD, MPH<sup>5</sup>*

### Multiple Prejudice-reducing Strategies:

- Stereotype replacement
- Counter-stereotype imaging
- Individuation
- Perspective taking
- Increasing interracial contact

# The Devine Solution

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- Implicit biases viewed as deeply engrained habits that can be replaced by learning multiple new prejudice-reducing strategies
- Non-black adults were motivated to:
  - ✓ Increase their awareness of bias against blacks
  - ✓ Increase their concerns about the effects of bias
  - ✓ Implement multiple strategies
  - ✓ These were effective in producing substantial reductions in bias that remained evident three months later

# Strategy: Building More Health into the Delivery of Healthcare

Diversifying the Workforce to meet the Needs of  
All Patients

# Race of MD & Newborn Survival

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- Study of 1.8 million hospital births 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

# Progress (or lack thereof) in Medicine

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- In 2014, there were 27 fewer African American males in the first year of Medical School than there had been 36 years earlier, in 1978
- In the mid- 1960s, 2.9% of all practicing physicians in the US were black, and in 2012, 3.8% of all practicing physicians were black (5.2% were Hispanic)

# Strategy: Building More Health into the Delivery of Healthcare

Providing Care that Addresses the Social context

# Care that Addresses the Social context

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

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# Nurse Family Partnership

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- Nurses make prenatal and post-natal visits to pregnant women.
- Nurses enhance parents' economic self-sufficiency by addressing vision for future, subsequent pregnancies, educational and job opportunities.
- Three randomized control trials (Elmira, NY; Memphis, TN; Denver, CO)
- Control group receives prenatal care
- Improved prenatal behaviors, pregnancy outcomes, maternal employment, relationships with partner.
- Reduces child abuse and neglect, subsequent pregnancies, welfare and food stamp use
- *\$17,000 return* to society for each family served



# Medical Legal Partnership

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- 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



# Reducing Social Inequities in Health

What Else Can We Do?

How do we Build Community Immunity for  
Future Pandemics

# Strategy

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



# Communities of Opportunity

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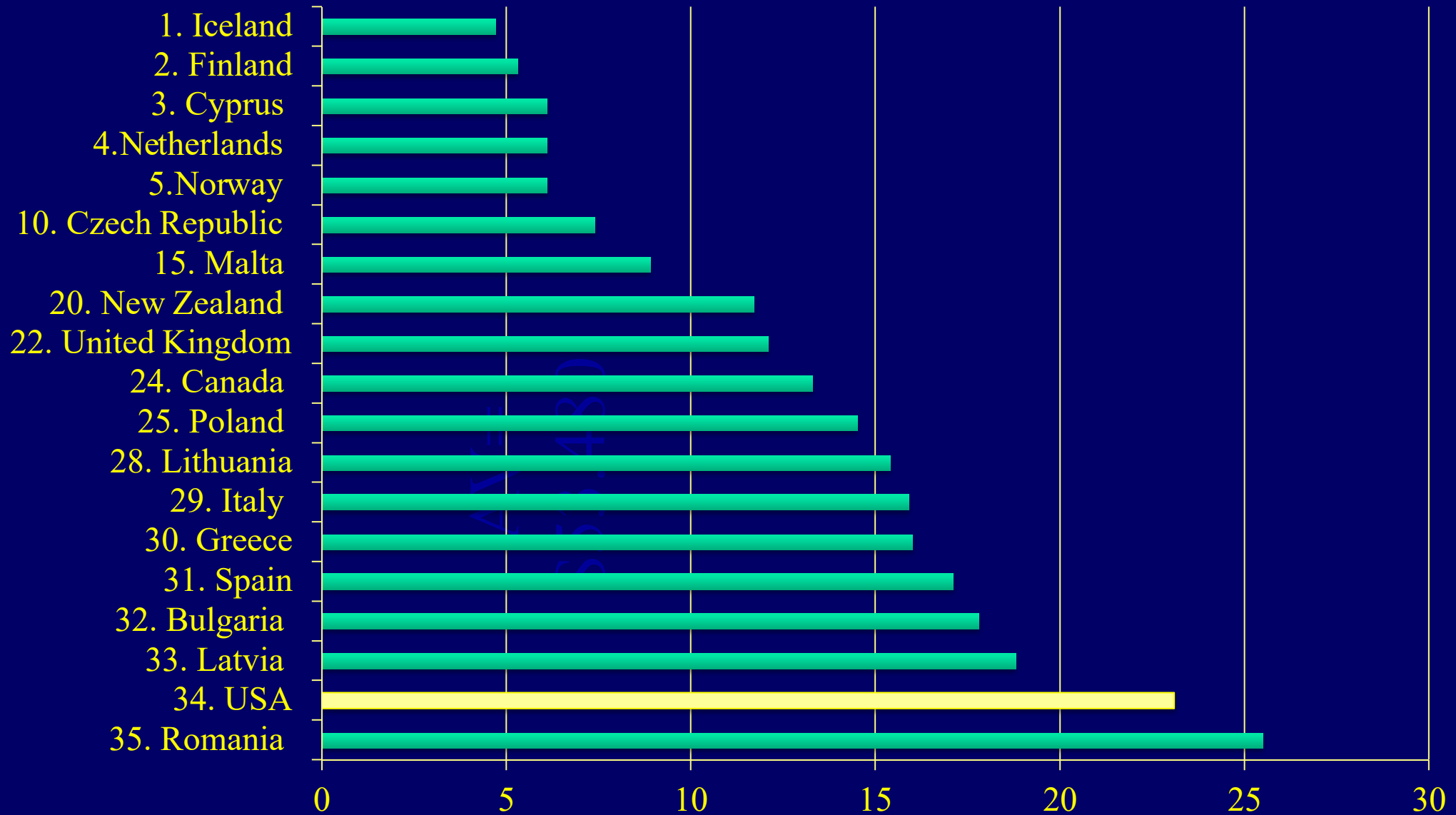
- Invest in early Childhood
- Reduce Childhood Poverty
- Enhance Income and Employment Opportunities for Youth and Adults
- Improve Neighborhood and Housing Conditions
- Enhance economic opportunities to build strong families/reduce disparities in marriage
- Raise Awareness levels of Racial Inequities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



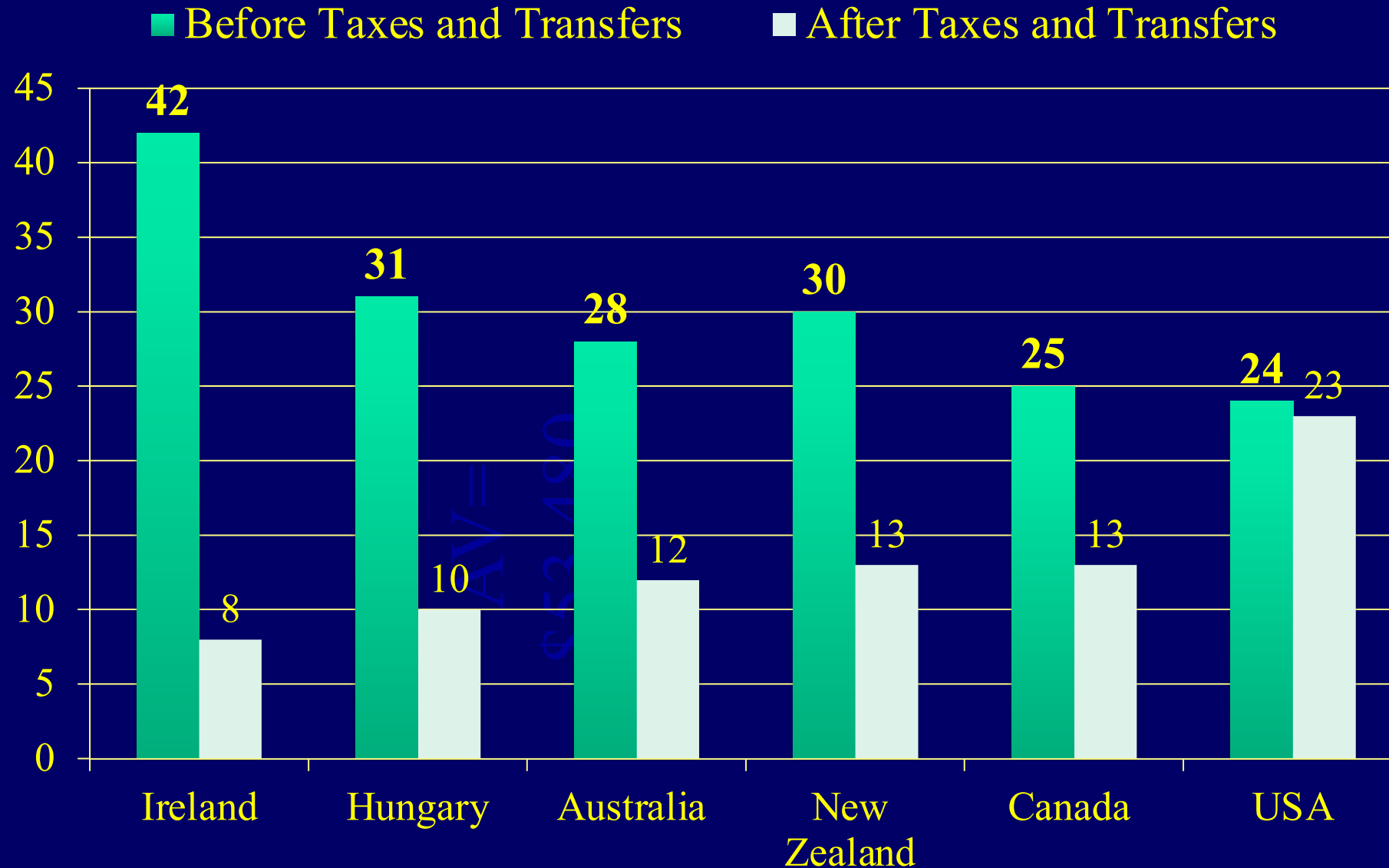
# Communities of Opportunity

Reduce Childhood Poverty

# Child Poverty Rate



# Child Poverty Rate

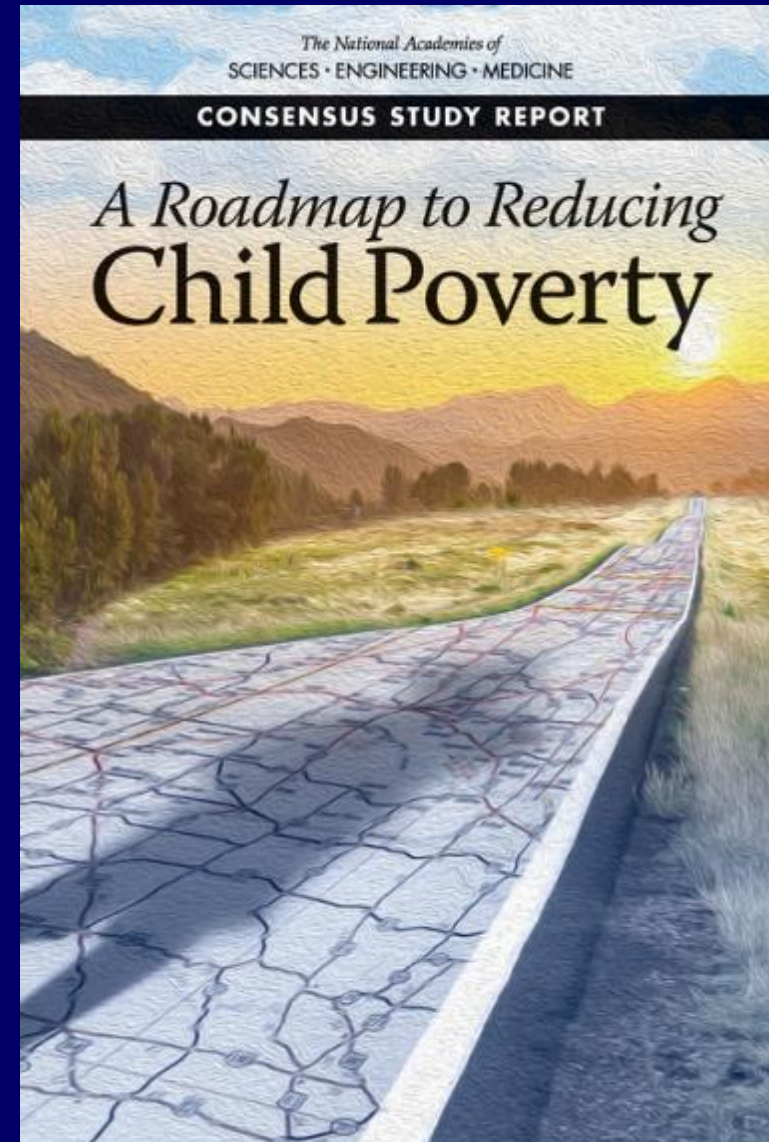




# Reducing Child Poverty by 50%

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- Earned Income Tax Credits
- Expand Housing Vouchers
- Expand SNAP
- Child Allowances
- Child & Dependent Care Tax Credit
- Work-based Programs
- Government & Tax transfers
- Public Health Insurance



“There can be no keener  
revelation of a society's  
soul than the way in  
which it treats its  
children”

Nelson Mandela



# Communities of Opportunity

Improve Neighborhood and Housing  
Conditions

# Moving to Opportunity

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- 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)



Unsplash.com

# Purpose Built Communities

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- Based on efforts in Atlanta's East Lake district
  - Purpose Built Communities uses integrative strategies including cradle-to-college educational opportunities, mixed-income housing, early child development programs, employment support and recreational opportunities
  - Community engagement and philanthropy
  - **Key:** addressing all of the challenges faced by disadvantaged communities simultaneously
  - Purpose Built Communities in Atlanta, New Orleans, Indianapolis, Charlotte, among others
-

# Implementing the Purpose Built Model



**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 5<sup>th</sup> 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 10<sup>th</sup>
- 98% meet or exceed state standards
- A top performing school in Atlanta and the state



# Principles of Purpose Built Communities

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- 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 support, social services, workforce development, recreation, wellness

What Is Holding Us Back?

What are the Barriers we have to Address?



***What elephant?***

Tomassi

# 3 Communication Challenges

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- We need to raise awareness levels of the problem of inequities in health
  - We need to build the science base that will guide us in developing the political will to address racial and SES inequities in health
  - We need to build empathy, that is, identify how to tell the story of the challenges of the disadvantaged in ways that emotionally connect and resonate with the public
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# The Real Challenge

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*An Empathy Gap?*

*“The most difficult social problem in the matter of Negro health is the peculiar attitude of the nation toward the well-being of the race.*

*There have... been few other cases in the history of civilized peoples where human suffering has been viewed with such peculiar indifference” W.E. B. Du Bois, 1899 [1967] p.163*

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<https://www.phila.gov/personnel/Jobs/NonCivilServiceJobOpps.html>

# Recent Review on Empathy Gap

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- Studies of empathic responses in brain activity when viewing suffering of persons of one's own race vs. members of another race
- Racial ingroup bias consistently found in brain imagery studies in Europe, Africa, Asia, and the U.S.
- Stronger empathic neural response to the pain of same race versus other race individuals, using a variety of stimuli
- This racial bias in neural responses more consistent than self-reports of empathy



# Lack of Empathy, Evident Early in Life

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- Mainly white 5-, 7- and 10-year olds rate pain of black and white children
- No racial bias at age 5
- Children show weak bias (blacks feel less pain) at age 7
- At age 10 children rate pain of black child less than white one (strong, reliable racial bias)
- Unrelated to social preference (would like to be friends with)
- We may need to start empathy training very young



[http://www.huffingtonpost.com/2013/10/17/racial-empathy-gap\\_n\\_4118252.html](http://www.huffingtonpost.com/2013/10/17/racial-empathy-gap_n_4118252.html)

# Policy Implications of the Empathy Gap

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Would you support the government giving businesses and industry special tax breaks for locating in poor and high unemployment areas

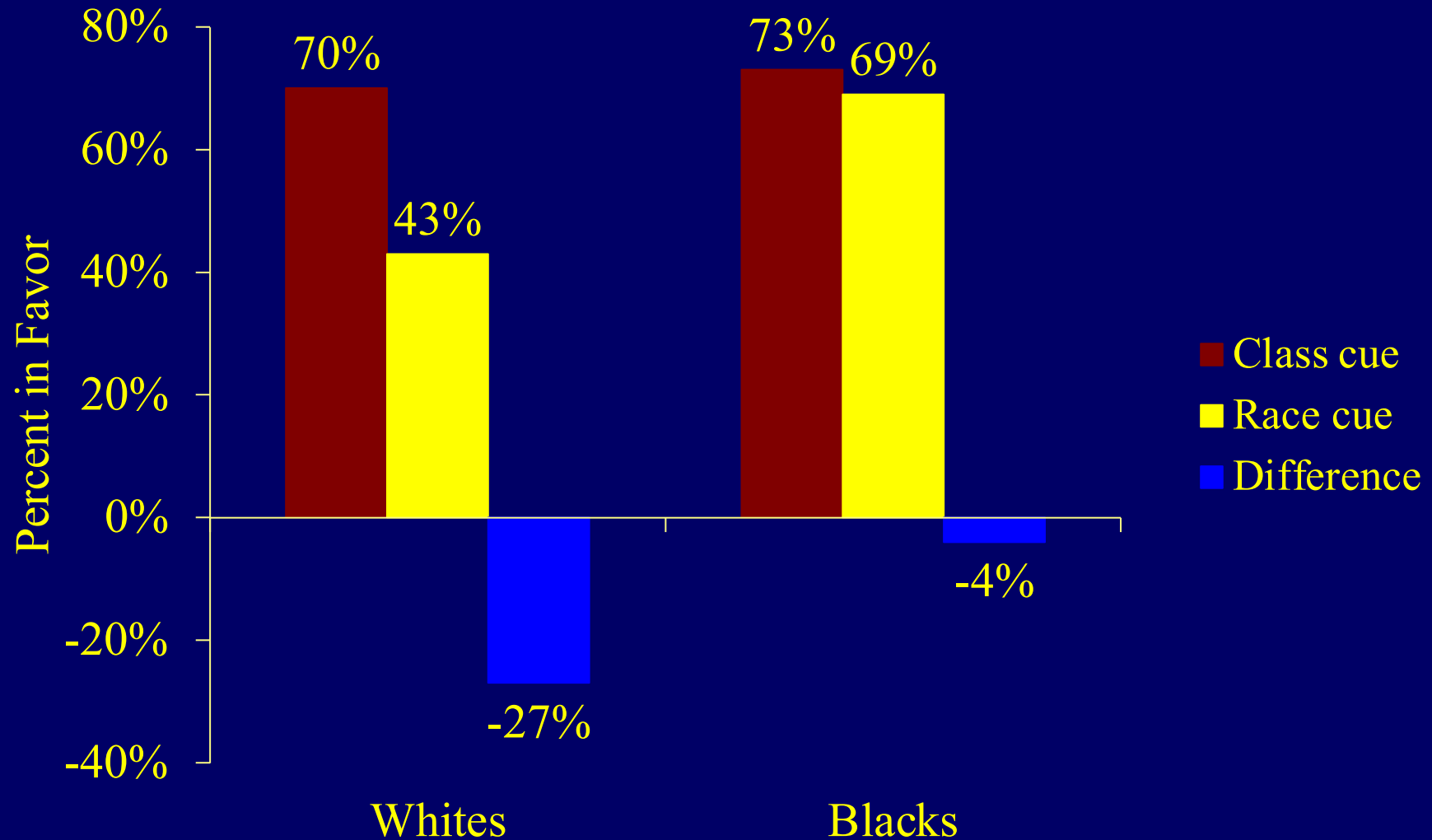
OR

largely black areas



# Support for Government Intervention

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# A Call to Equity

## Equality



## Equity

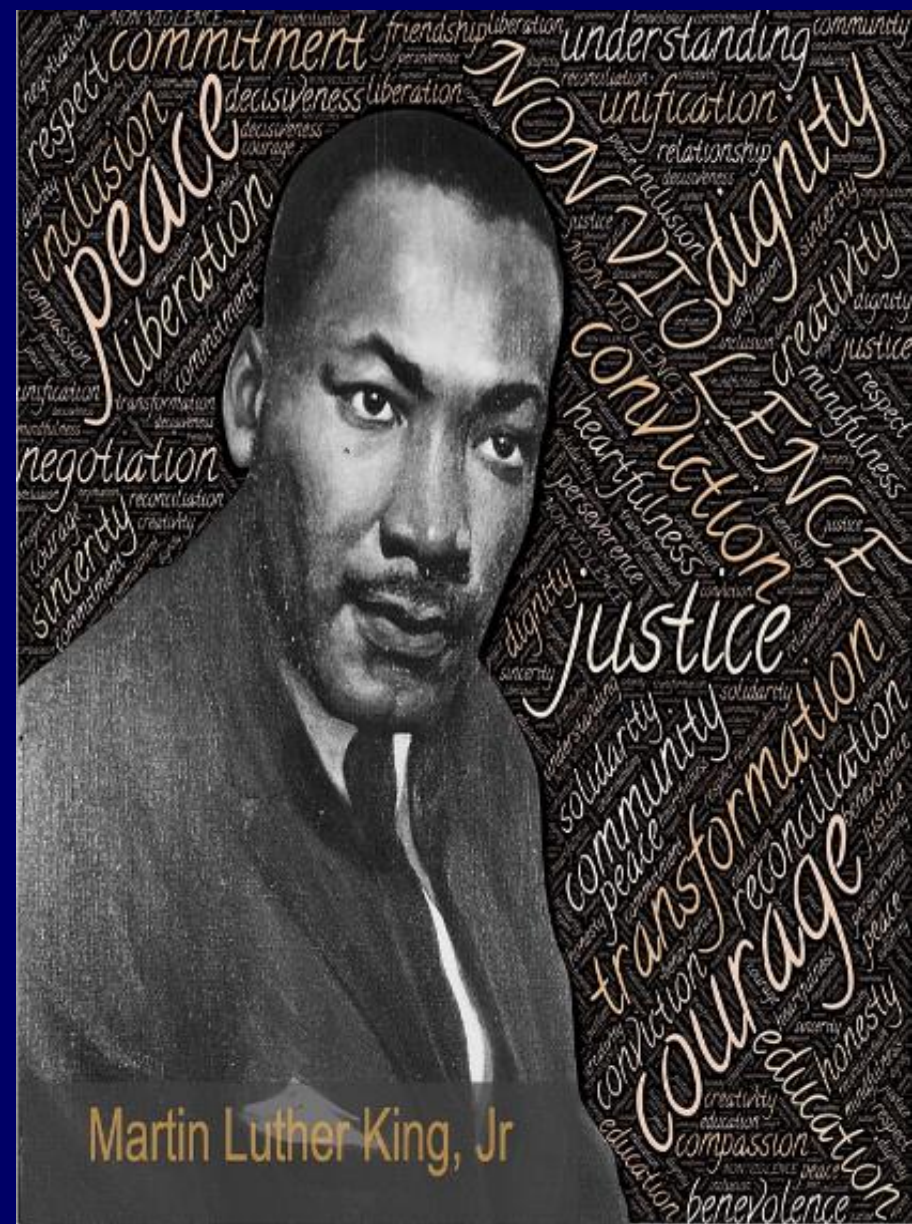


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“There is nothing so unfair as the equal treatment of unequal people.”

- Plato paraphrased

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



## Further Reading

David R Williams & Lisa A. Cooper, “*Reducing Racial Inequities in Health: Using What We Already Know to Take Action.*” International Journal of Environmental Research and Public Health, 16 (4), 606, 2019.