Striving Toward Equity: The Role of Social and Structural Determinants of Health

Darrell Hudson, PhD MPH

March 10, 2021

Thank You!

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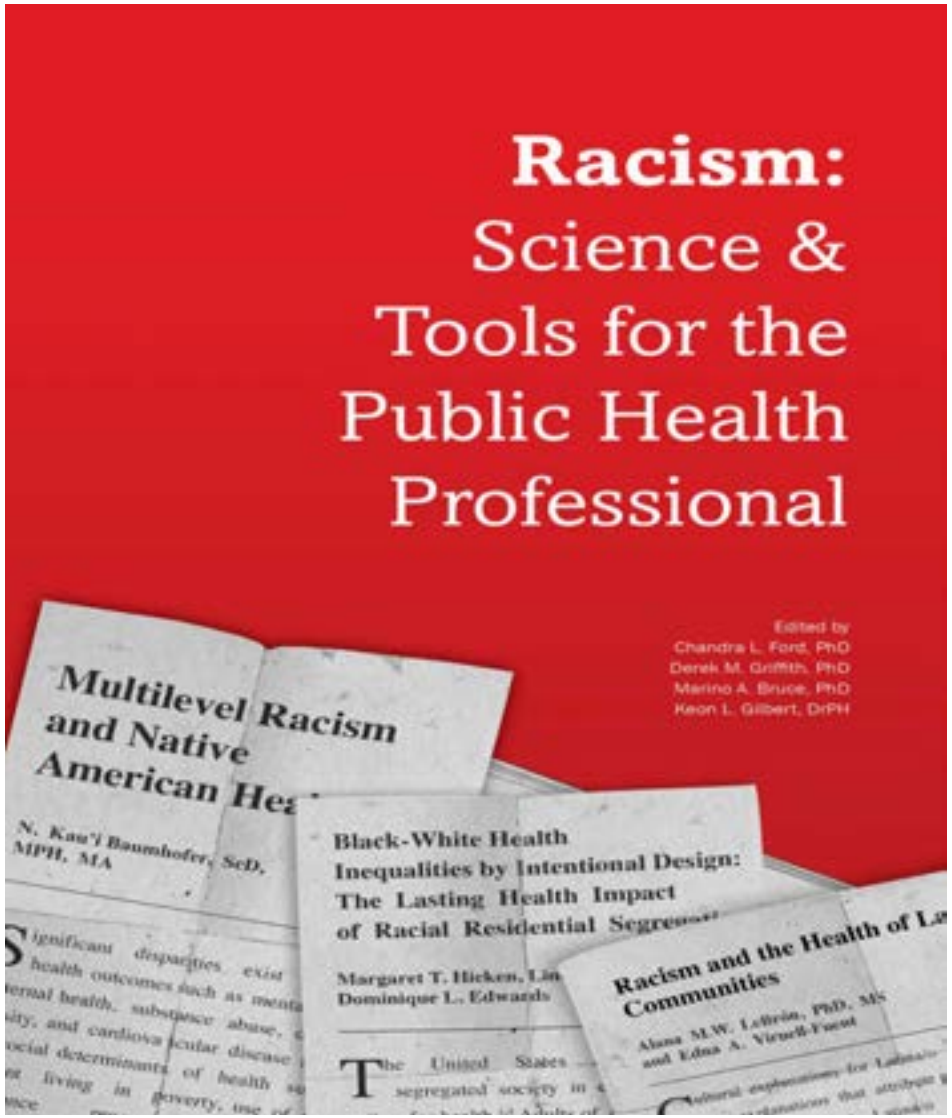
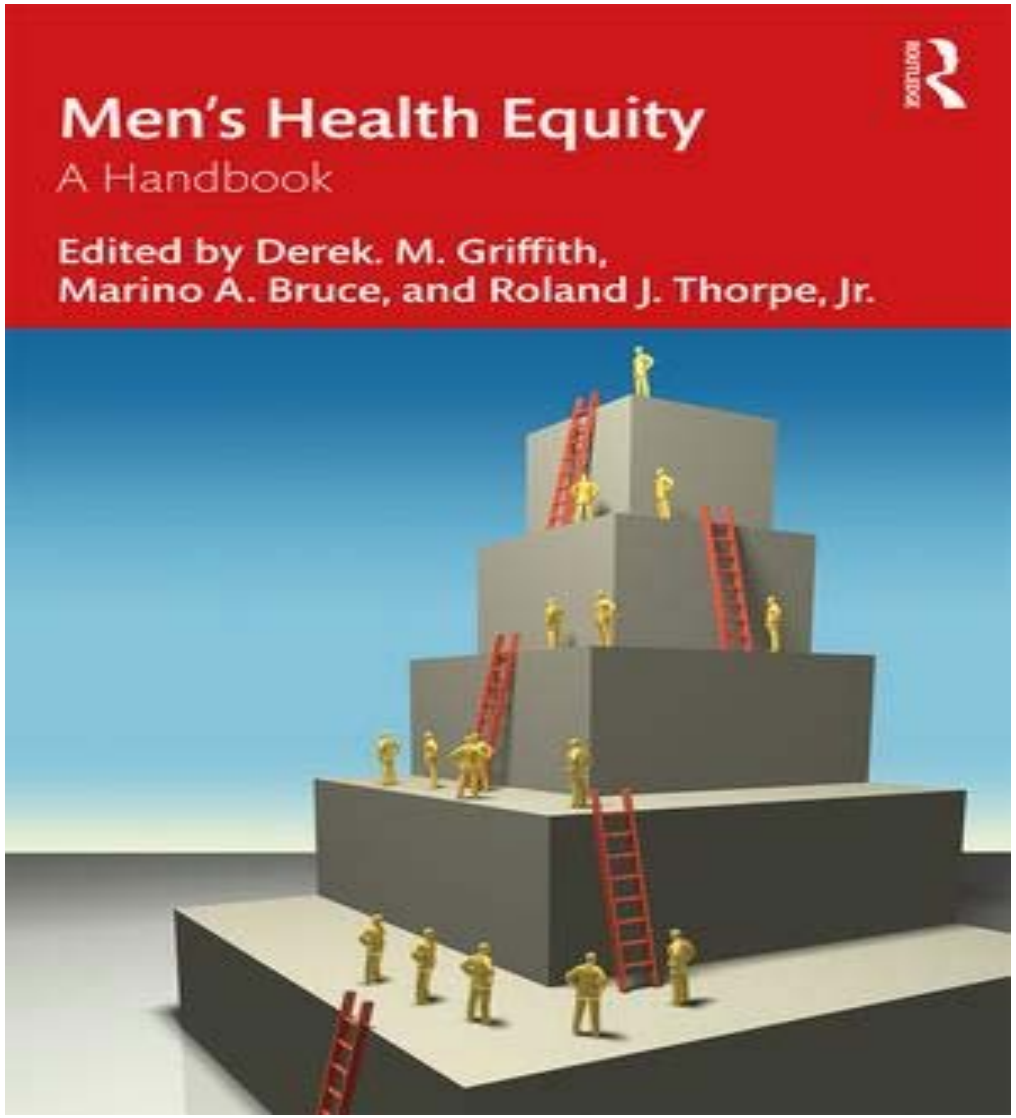
Agenda

- Resources
- Key Concepts
- Why do some populations get sick?
- Where do we go from here?

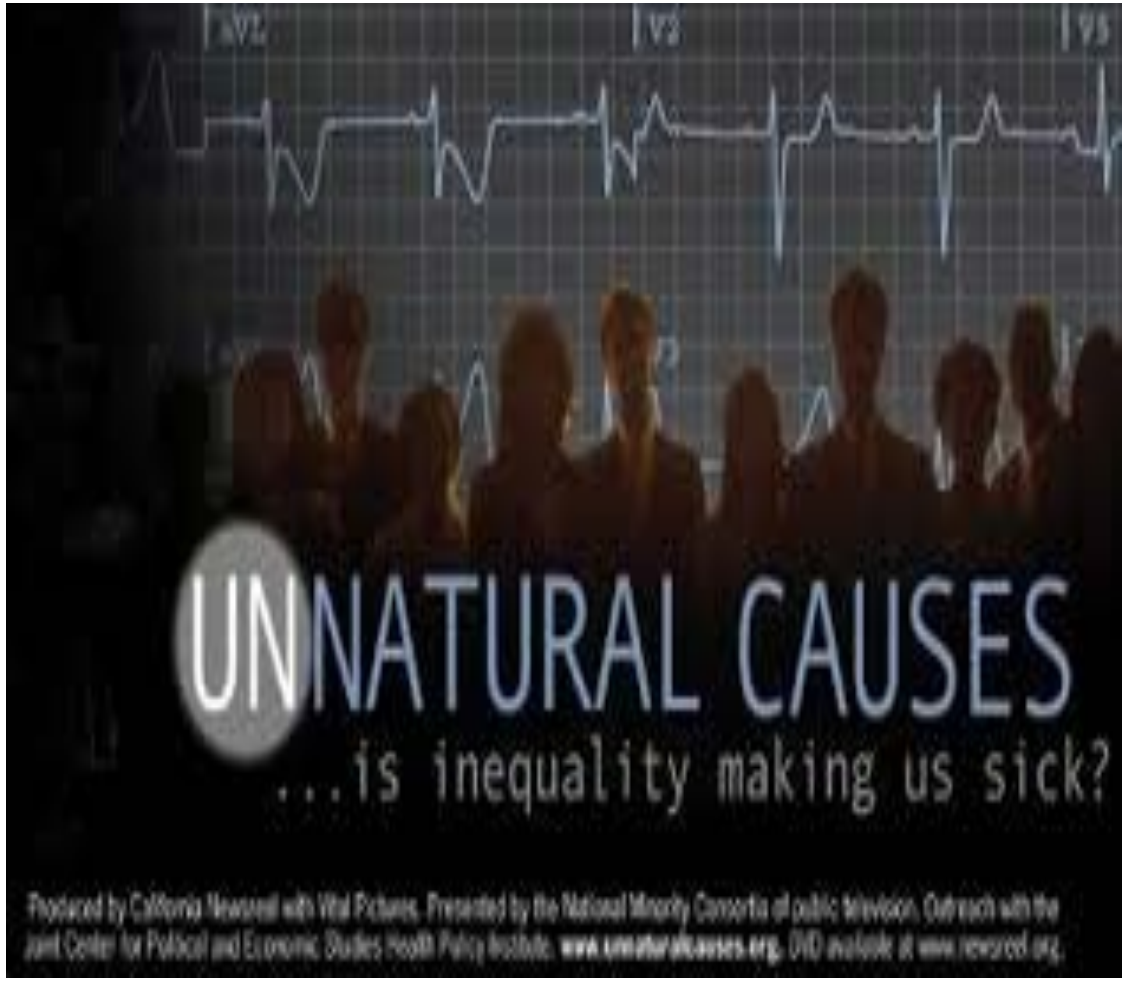
RESOURCES


Racism:
Science &
Tools for the
Public Health
Professional
Edited by
Chandra L. Ford, PhD
Derek M. Griffith, PhD
Marino A. Bruce, PhD
Keon L. Gilbert, DrPH
Multilevel Racism and Native American
Black-White Health Inequalities by Intentional Design: The Lasting Health Impact of Racial Residential Segregation
Racism and the Health of Communities


Men's Health Equity
A Handbook
Edited by Derek. M. Griffith,
Marino A. Bruce, and Roland J. Thorpe, Jr.

Media Resources

Media Resources



KEY CONCEPTS

Tweet

JAMA
@JAMA_current

No physician is racist, so how can there be structural racism in health care? An explanation of the idea by doctors for doctors in this user-friendly podcast from the great @DrKatzNYCHH and @ehlJAMA!

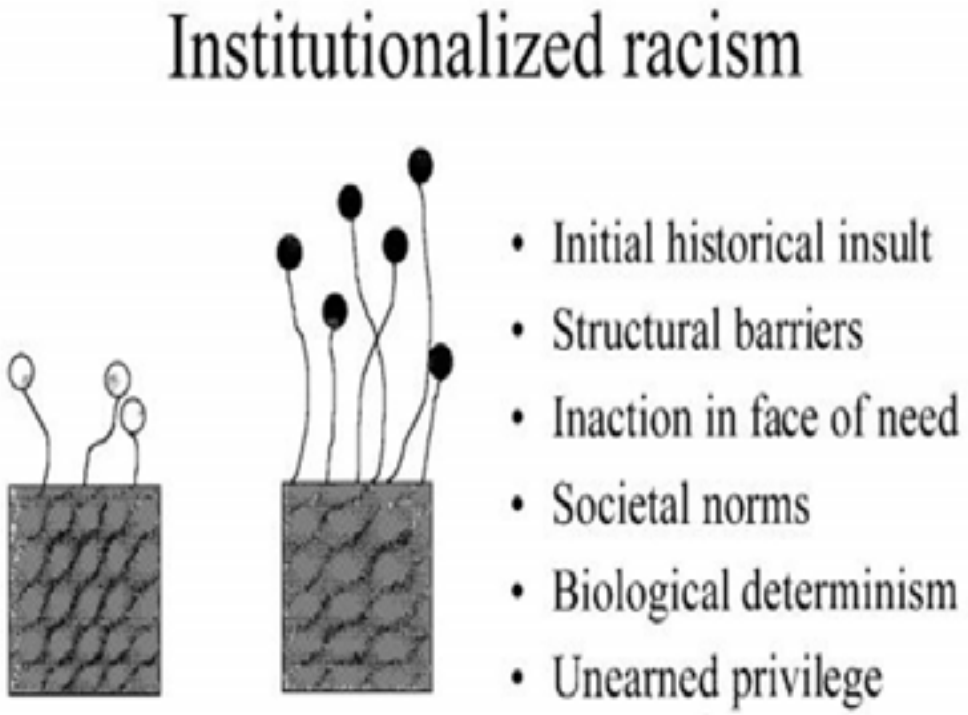
Structural Racism for Doctors—What Is It?

edhub.ama-assn.org

"Racism is a matter of economics, and it is also more than economics. It structures living and working conditions, affects daily interactions, and takes its toll on people's dignity and pride"

– Krieger & Fee (1994)

Types of Racism



- Individually (personally) mediated
- Institutionalized
- Internalized

Jones CP. Levels of racism: a theoretic framework and a gardener's tale. *Am J Public Health*. 2000;90(8):1212-1215.

Conceptual Clarity

- Are the terms structural and social determinants of health accurate?
- Are they overyly euphemistic?

What is Health?

- Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.

– World Health Organization

Sick Individuals and Sick Populations (Cases vs. Causes)

© International Epidemiological Association 1985 Printed in Great Britain

International Journal of Epidemiology 2001;30:427–432

REITERATION

Sick individuals and sick populations

Geoffrey Rose

Rose G (Department of Epidemiology, London School of Hygiene and Tropical Medicine, Keppel Street, London WC1E 7HT, UK). Sick individuals and sick populations. *International Journal of Epidemiology* 1985;**14**:32–38.

Aetiology confronts two distinct issues: the determinants of individual cases, and the determinants of incidence rate. If exposure to a necessary agent is homogeneous within a population, then case/control and cohort methods will fail to detect it: they will only identify markers of susceptibility. The corresponding strategies in control are the 'high-risk' approach, which seeks to protect susceptible individuals, and the population approach, which seeks to control the causes of incidence. The two approaches are not usually in competition, but the prior concern should always be to discover and control the causes of incidence.

The Determinants of Individual Cases

In teaching epidemiology to medical students, I have often encouraged them to consider a question which I first heard enunciated by Roy Acheson: 'Why *did this* patient get *this* disease at *this* time?'. It is an excellent starting-point, because students and doctors feel a natural concern for the problems of the individual. Indeed, the central ethos of medicine is seen as an acceptance of responsibility for sick individuals.

It is an integral part of good doctoring to ask not only, 'What is the diagnosis, and what is the treatment?' but also, 'Why did this happen, and could it have been prevented?'. Such thinking shapes the approach to nearly all clinical and laboratory research into the causes and mechanisms of illness. Hypertension research, for example, is almost wholly pre-occupied with the characteristics which distinguish individuals at the hypertensive and normotensive ends of the blood pressure distribution. Research into diabetes looks for genetic, nutritional and metabolic reasons to explain why some people get diabetes and others do not. The constant aim in such work is to answer Acheson's question,

To confine attention in this way to within-population comparisons has caused much confusion (particularly in the clinical world) in the definition of normality. Laboratory 'ranges of normal' are based on what is common within the local population. Individuals with 'normal blood pressure' are those who do not stand out from their local contemporaries; and so on. What is common is all right, we presume.

Applied to aetiology, the individual-centred approach leads to the use of relative risk as the basic representation of aetiological force: that is, 'the risk in exposed individuals relative to risk in non-exposed individuals'. Indeed, the concept of relative risk has almost excluded any other approach to quantifying causal importance. It may generally be the best measure of aetiological force, but it is no measure at all of aetiological outcome or of public health importance.

Unfortunately this approach to the search for causes, and the measuring of their potency, has to assume a heterogeneity of exposure within the study population. If everyone smoked 20 cigarettes a day, then clinical, case-control and cohort studies alike would lead us to conclude that lung cancer was a genetic

CASES: WHY DO SOME INDIVIDUALS GET SICK?

Diet

Libby's
Sweet Peas
Libby's
Whole Kernel
Sweet Corn
Libby's
Cut
Green Beans

CAUSES: WHY DO SOME POPULATIONS GET SICK?

FLINT
IS
CLEAN
BITCH!

TACO BELL
COOKING GREAT SINCE
Grinder
Breakfast Lunch & Dinner
McDonald's
PLAYPLACE

Colt 45
Works Every Time

SAFEWAY

Physical Activity

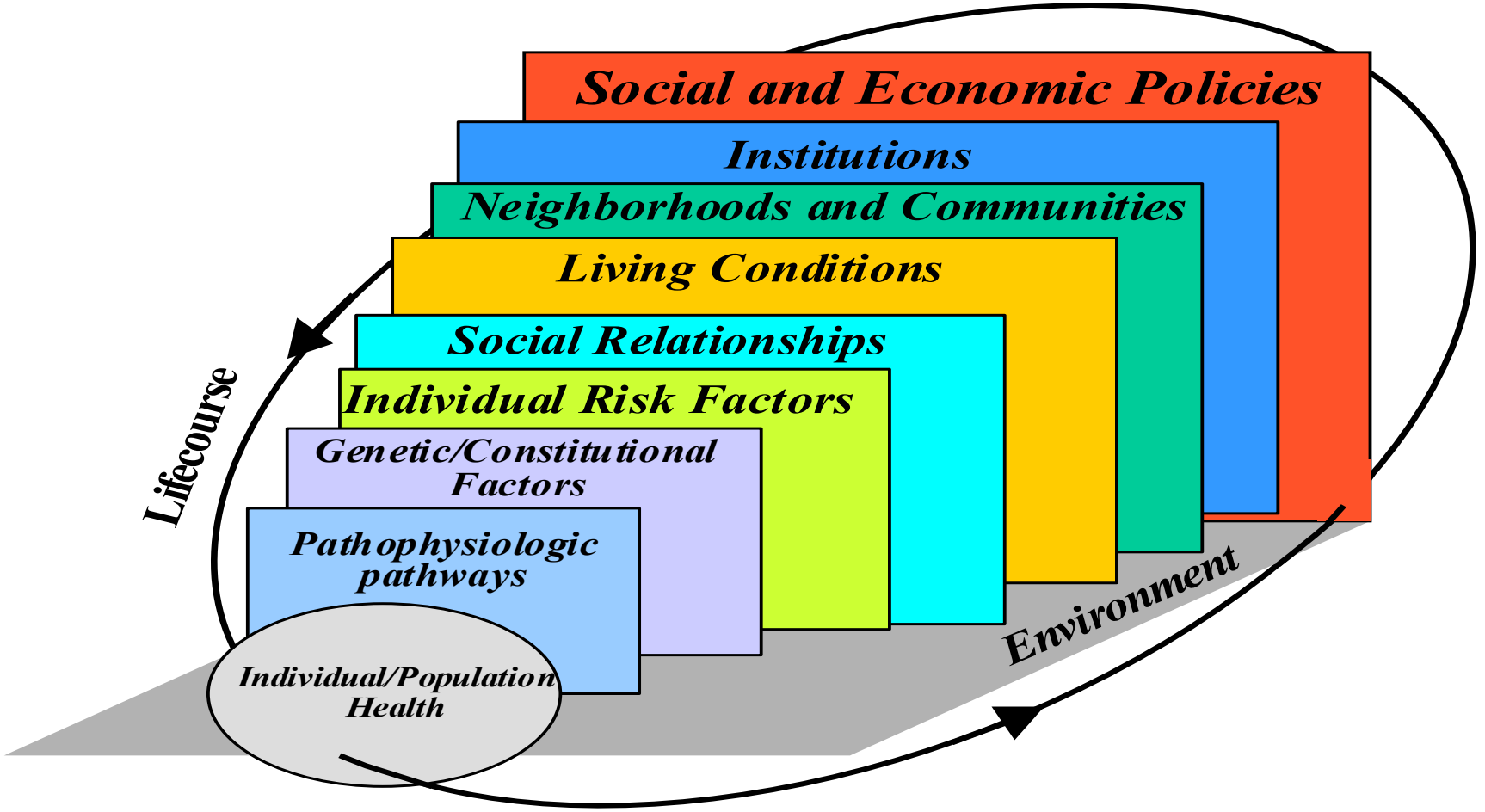
Damned if you do…

Damned if you don't…

Context (Social and Physical)

- How does it shape norms?
  - What is available and acceptable to your network?
- How are opportunities to engage in certain behaviors reinforced, truncated or absent?
  - Safe spaces to recreate
- How does context produce health inequities?
  - What resources are available to cope with chronic stress?
  - Immune system functioning
  - Epigenetics

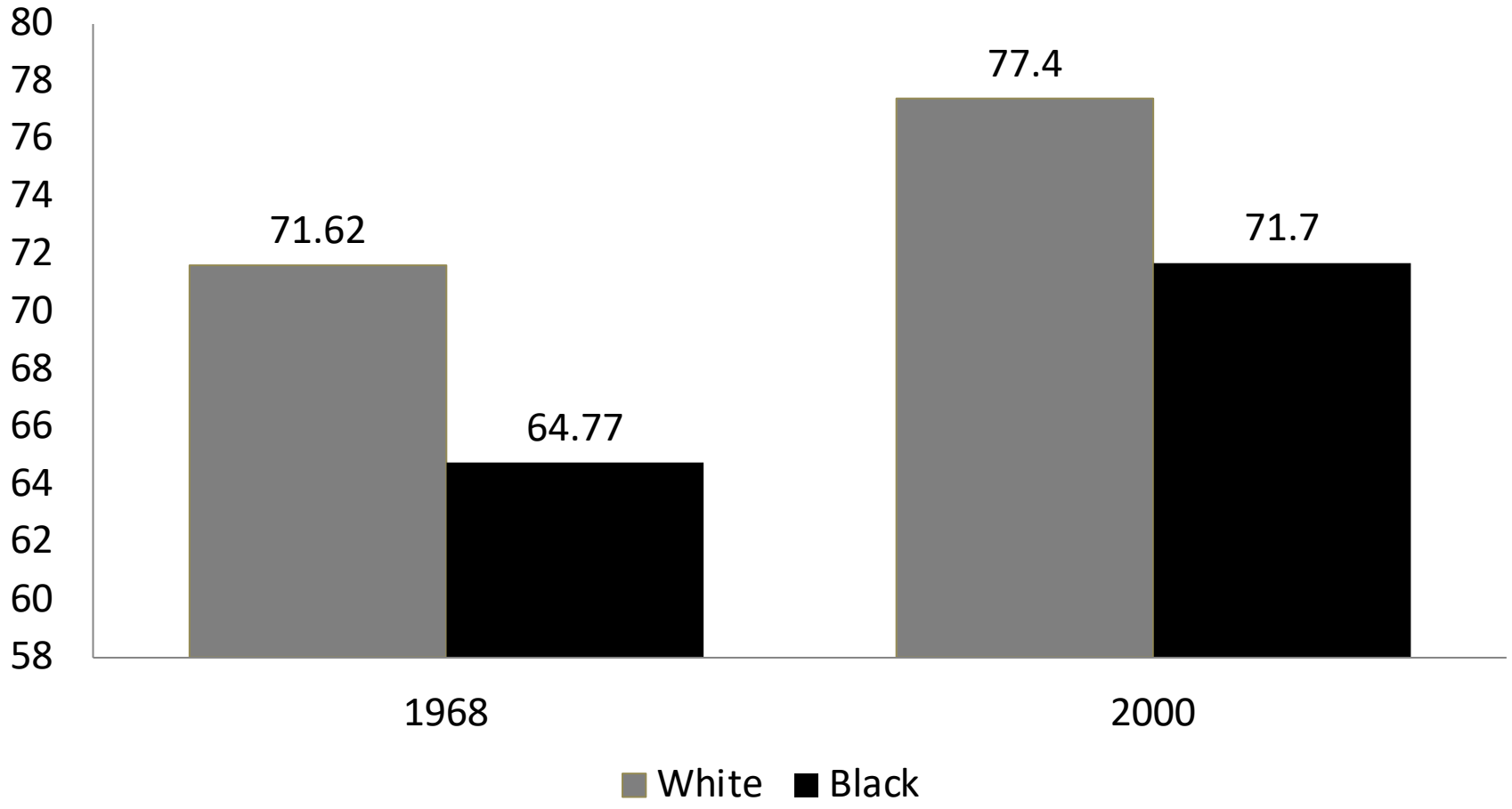
Multilevel Factors



Health Disparities

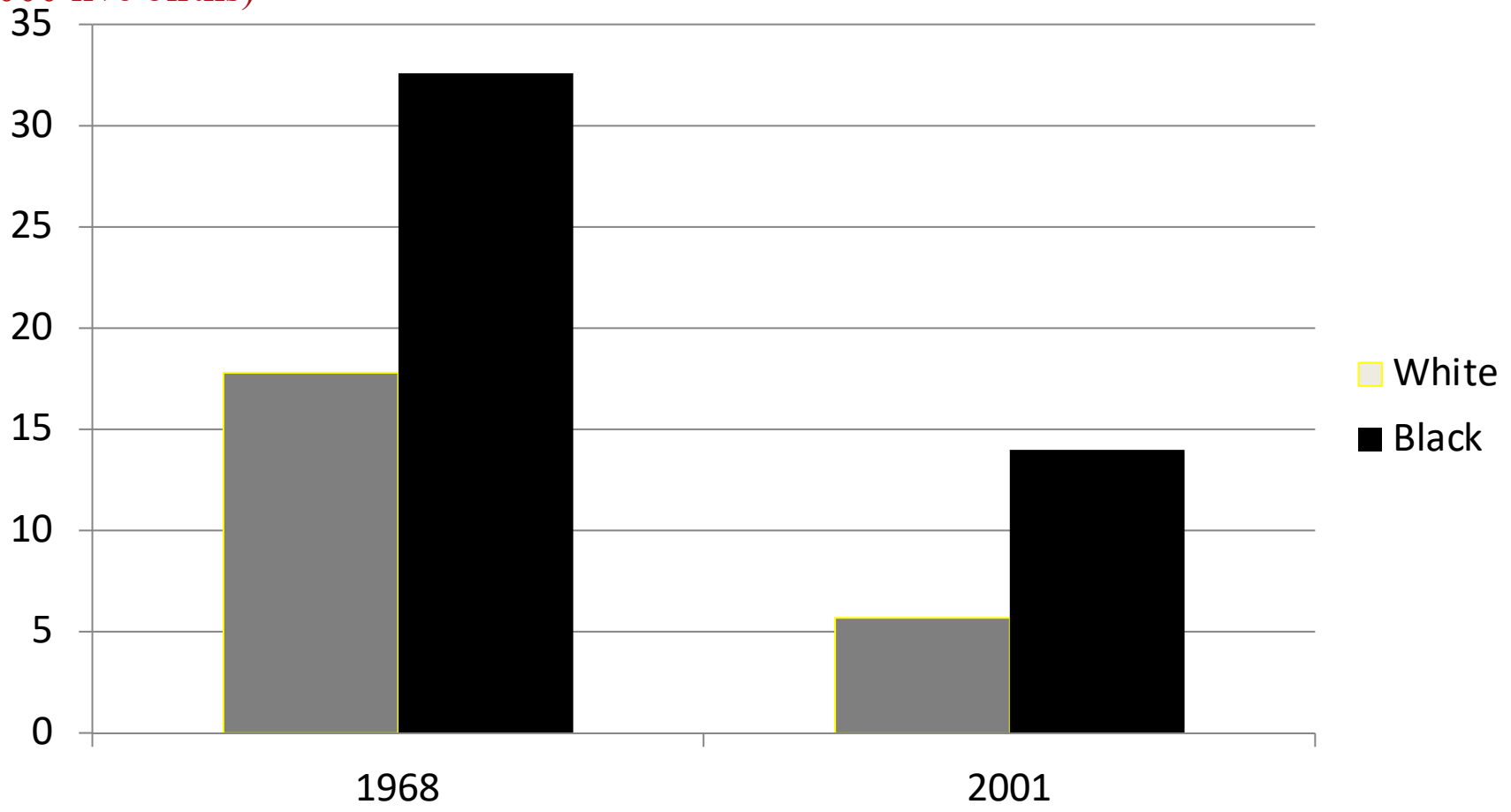
- Systematic, unfair differences in health across racial/ethnic groups that are plausibly avoidable as they are fueled by policies and practices, not genetics (zip code not genetic code).
  - Historically linked to racism and/or marginalization
- Disparities in health put socially and economically disadvantaged groups at further disadvantage.

Life Expectancy at Birth



Infant Mortality Rate

(Deaths per 1,000 live births)



People Behind the Numbers

Shalon Irving, PhD, 36

- Lt. Commander in the US Public Health Service Commissioned Corps and CDC epidemiology
- Dual PhD
- Home owner
- 6-figure income earner
- https://www.npr.org/2017/12/07/568948782/black-mothers-keep-dying-after-giving-birth-shalon-irvings-story-explains-why

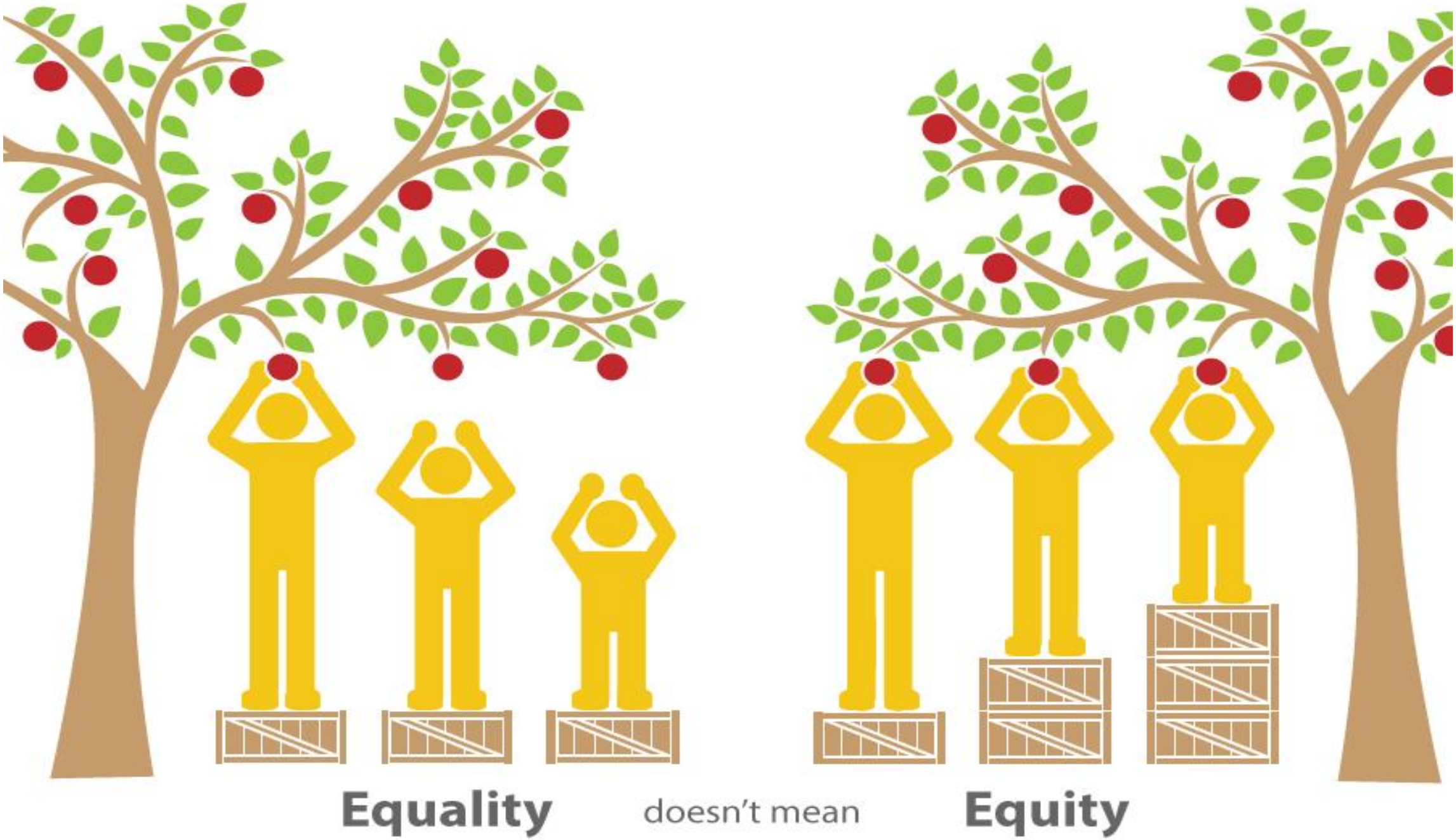
People Behind the Numbers

https://www.nytimes.com/2018/01/11/sports/tennis/serena-williams-baby-vogue.html

https://www.vogue.com/article/serena-williams-vogue-cover-interview-february-2018

What is Health Equity?

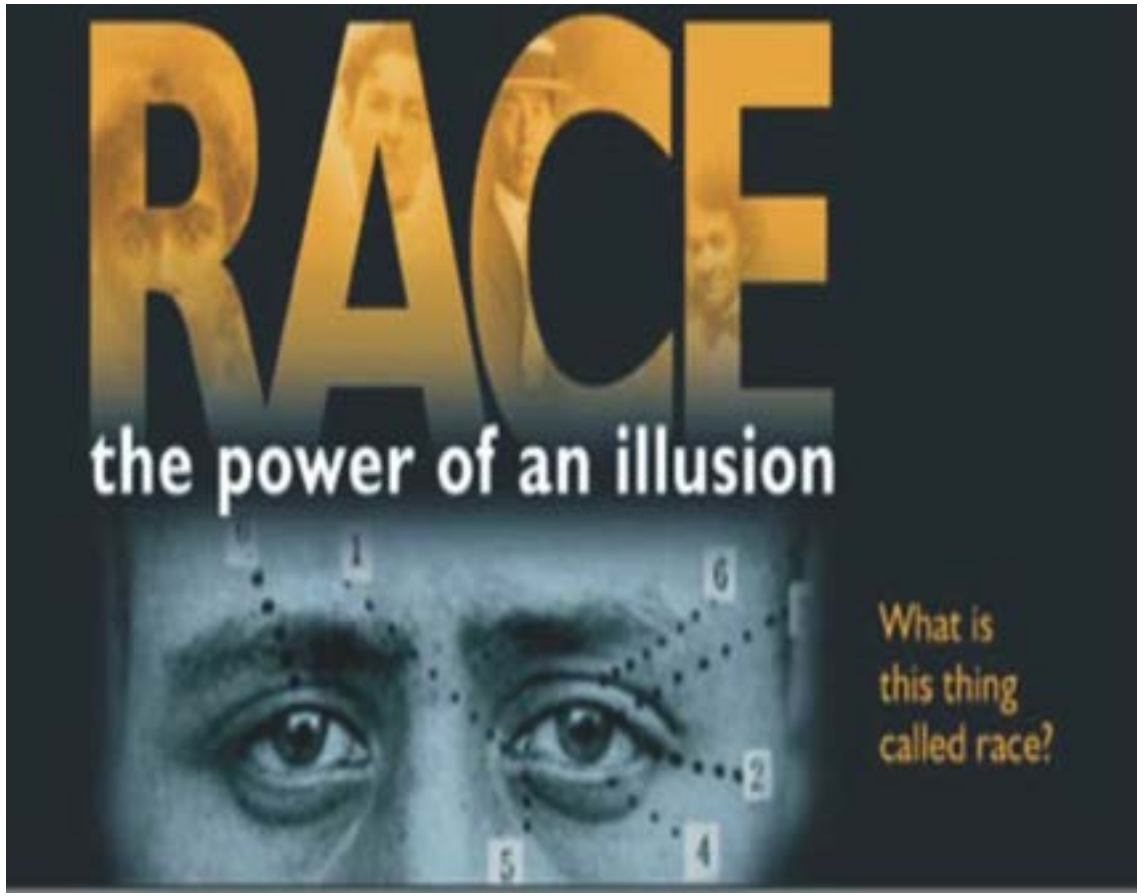
- Everyone should be able to attain the highest level of health possible and should not be disadvantaged because of their social position or other socially determined circumstances.
- Striving toward health equity involves creating opportunities and removing barriers to achieving the fullest health potential for all people.


Equality
doesn't mean
Equity

STRUCTURAL RACISM

Defining Race

- Genes responsible for observed racial markers are the most unstable and under the most selective pressures
- Racial classification depends on the local criteria for categorizing people (folk taxonomy)
- Racial classification is not stable
  - Across culture
  - Across life



Race has been collected on the census since 1790

- 1790-1850: White, Black (free & slave)
- 1850-1870, 1890, 1910, 1920: mulattos among blacks
- 1860: American Indians (taxed only) & Chinese (California only)
- 1870: Japanese
- 1890: quadroons & octoroons, all American Indians
- 1910: APIs (e.g. Filipino, Korean, Hindu) w/o “other”
- 1930: Mexican
- 1940: Mexican eliminated
- 1950: Mixed Indian, Black, White, Chinese, Japanese, Filipino, “others”
- 1960 – 1980: increased API categories
- 1970
  - Hispanic origin asked comprehensively
- 2000: Multiple races, Pacific Islanders separated.

U.S. Census

- Until 1950, enumerator observation
- 1960 -1970, direct interview & self-identification
- 1980-2000, self-identification

1790 FEDERAL CENSUS

MICROFILM SERIES

STATE	TOWN/TOWNSHIP	P.O.	DATE OF ENUMERATION

County	City	Page	Head of Family	Free White Males		Free White Females Including Heads of Families	All Other Persons	Slaves
				16 & up incl. heads of families	Under age 16			

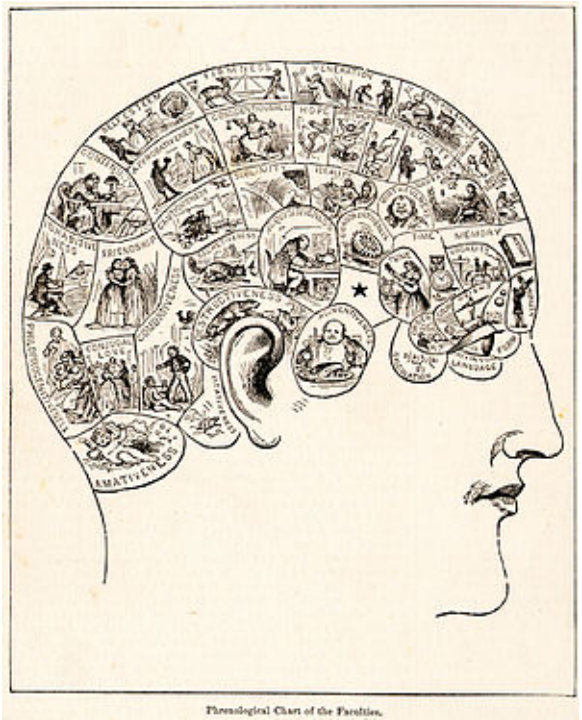
The U.S. Government did not furnish uniform printed schedules until 1830. As a result census returns may vary, and sometimes give more information. This schedule reflects the prescribed questions outlined by the 1790 census act.

1810 U.S. Census Questions

Page	Head of Family	Free White Males					Free White Females					All other persons except Indians not taxed	Slaves	Remarks
		Under 10	10–15	16–25	26–44	45 & Over	Under 10	10–15	16–25	26–44	45 & Over			

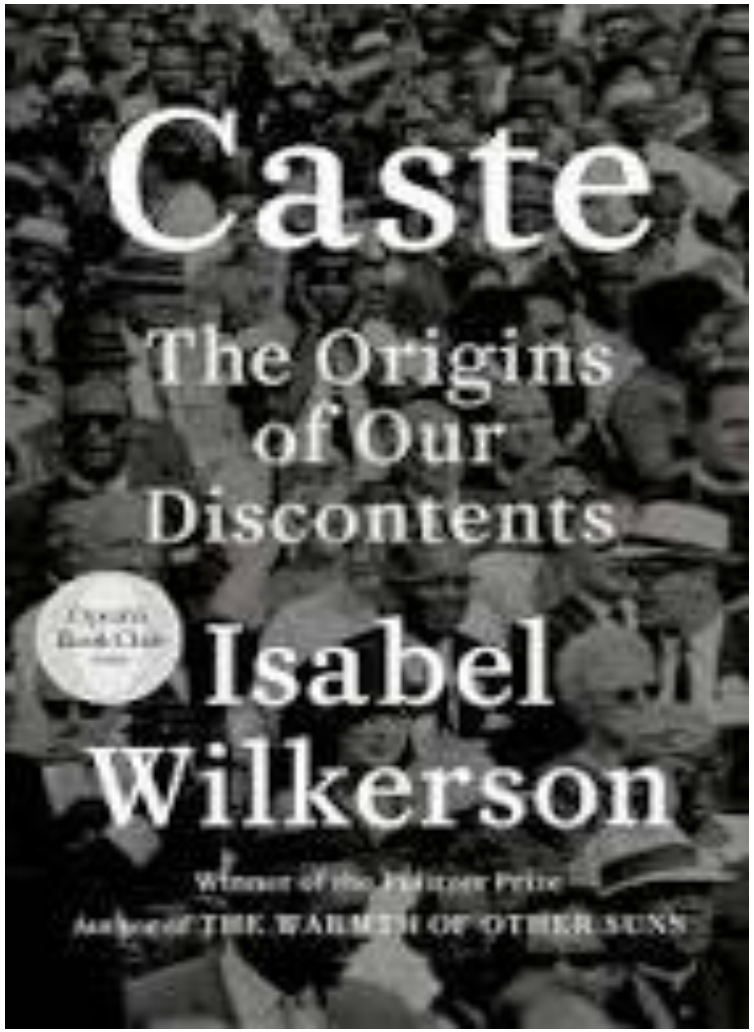
Racial Hierarchy

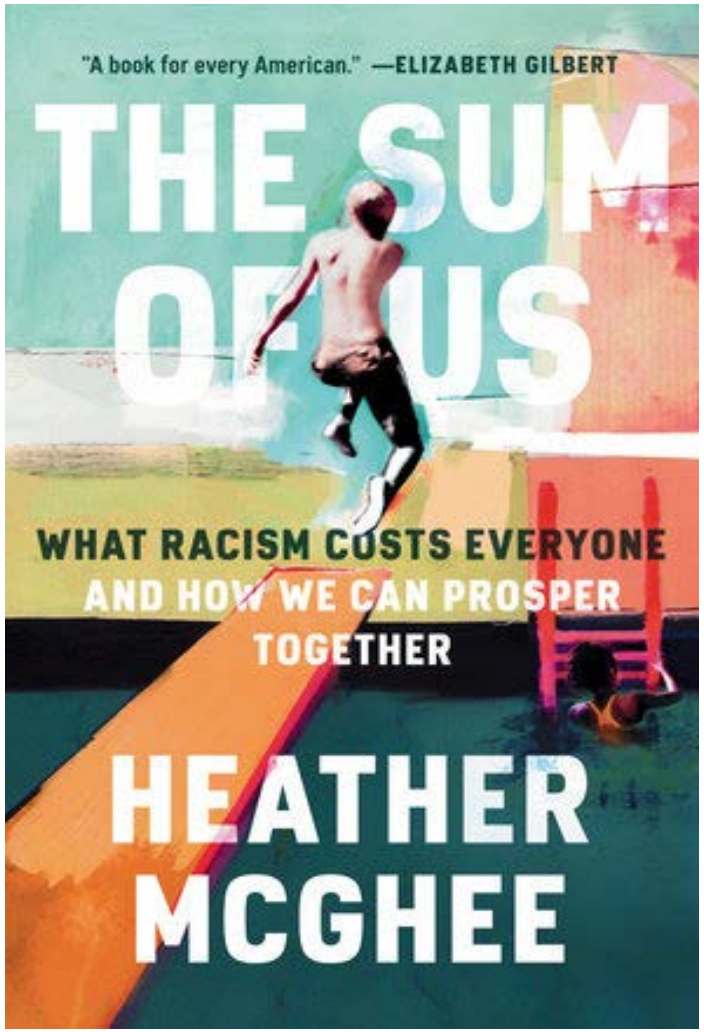
The Iberians are believed to have been originally an African race, who thousands of years ago spread themselves through Spain over Western Europe. Their remains are found in the barrows, or burying places, in sundry parts of these countries. The skulls are of low prognathous type. They came to Ireland, and mixed with the natives of the South and West, who themselves are supposed to have been of low type and descendants of savages of the Stone Age, who, in consequence of isolation from the rest of the world, had never been put compelled in the healthy struggle of life, and thus made way, according to the laws of nature, for superior races.

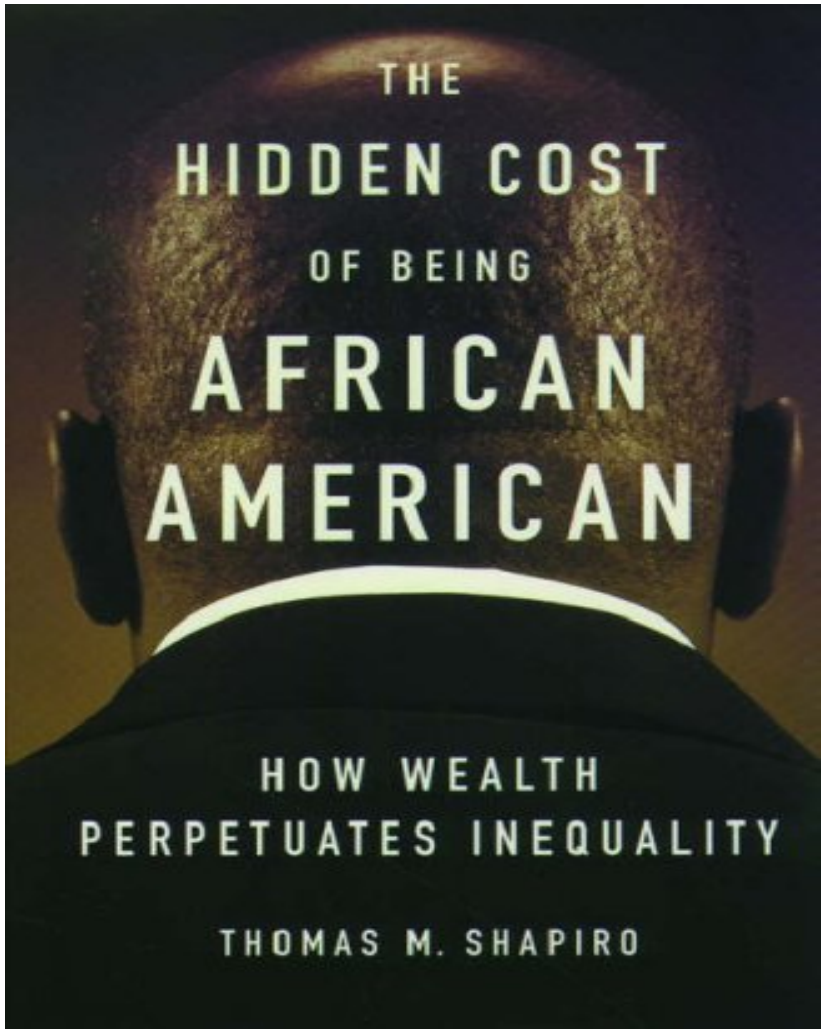


Phrenological Chart of the Faculties.

Structural Racism (Policies and Practices)





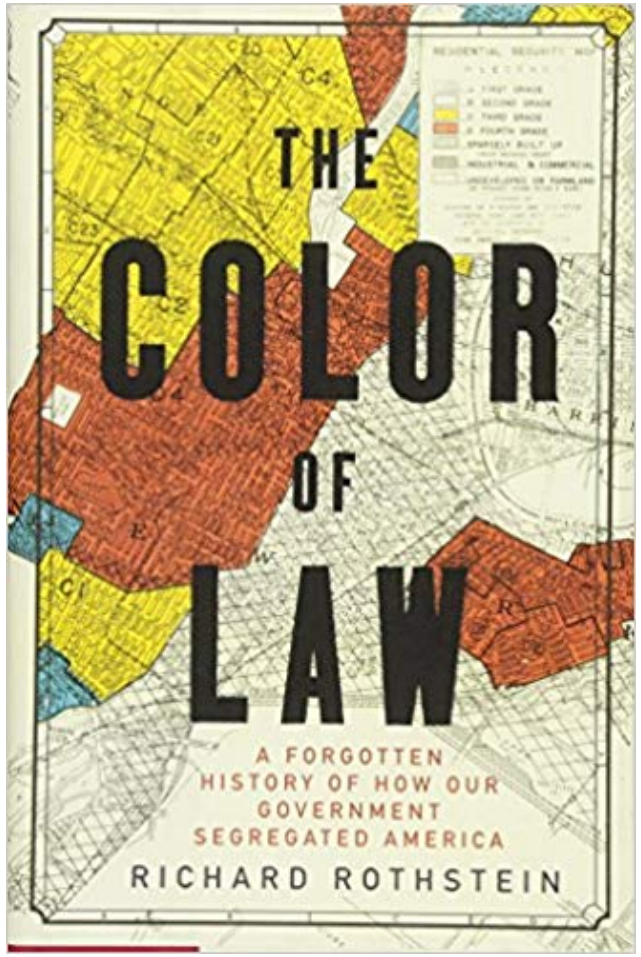


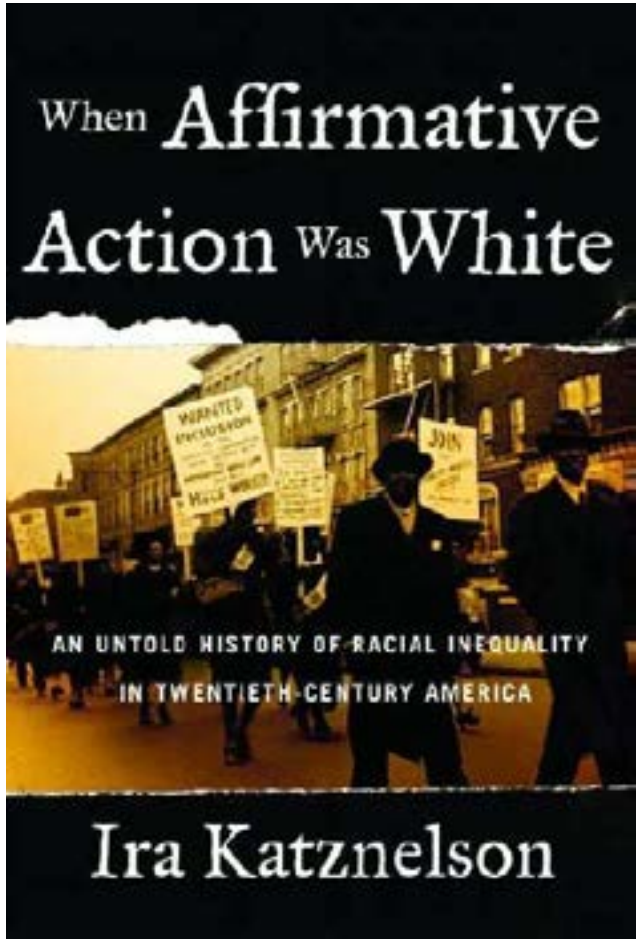
New Deal Era Policies

Segregation by Design

https://vimeo.com/328684375

Institutional/ Structural Racism

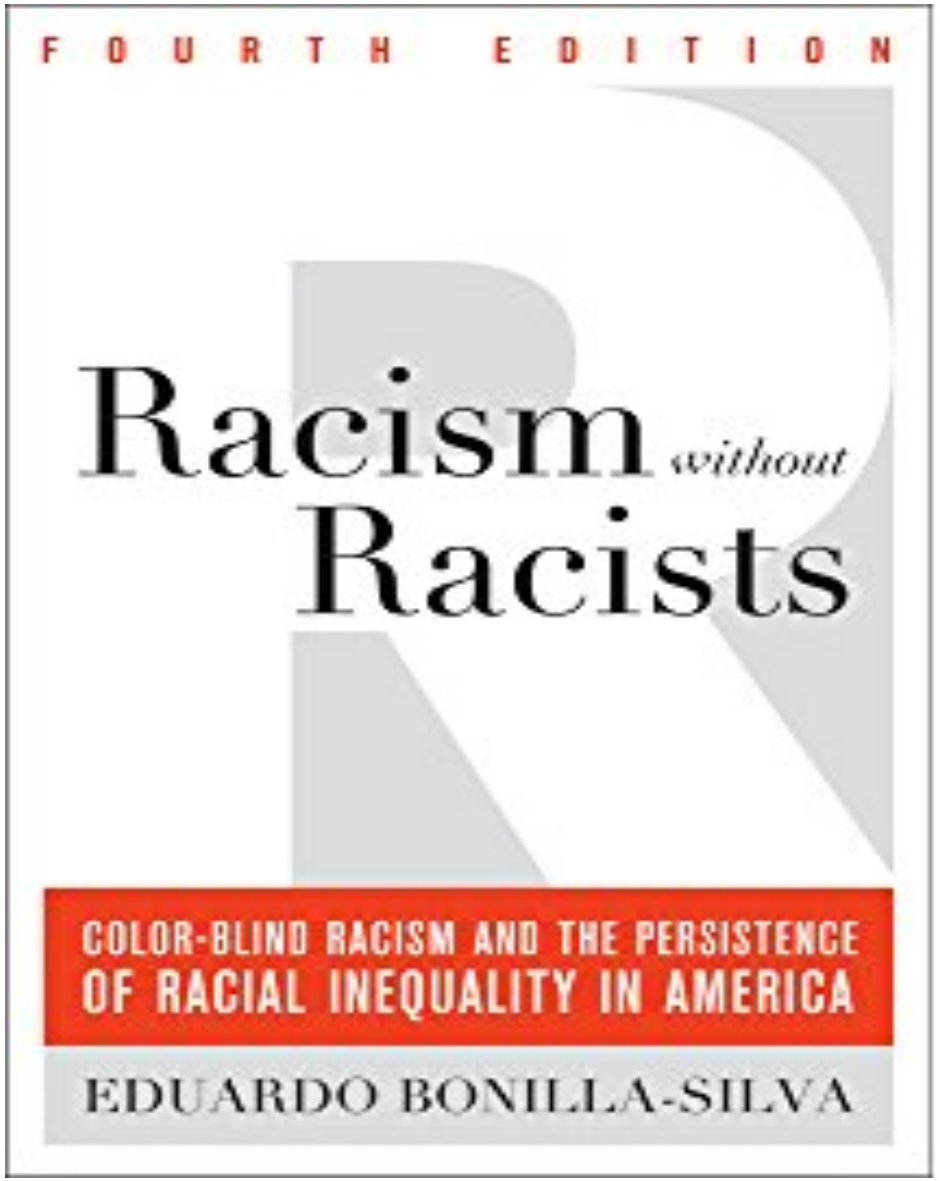




- New Deal Era Policies
  - GI Bill
  - Social Security Act
  - Home Owners Loan Corporation (HOLC)
  - Federal Housing Authority (FHA) loans
    - Suburban, single home mortgage payments less than rent in urban core

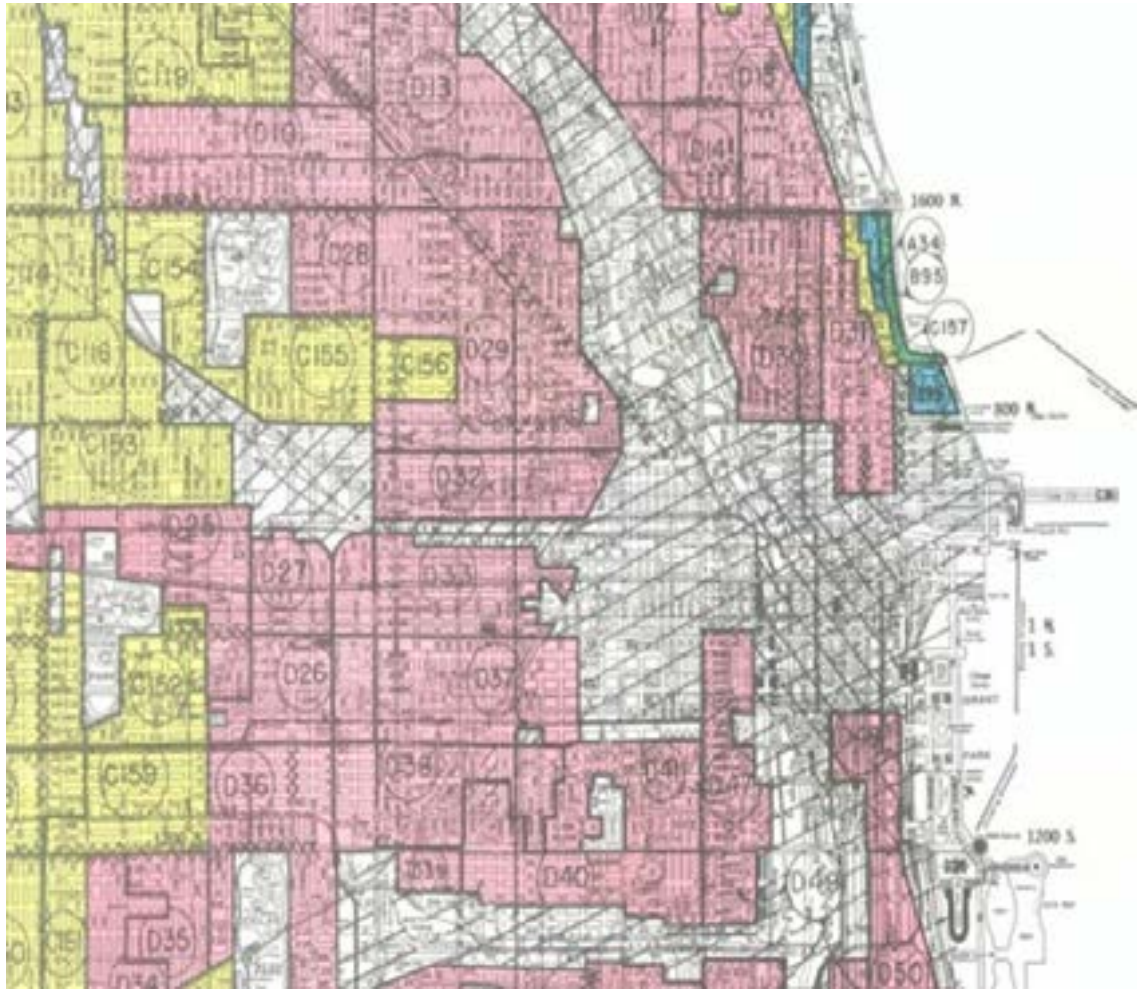
Rac(ism) Matters

- Policies and Practices
  - Redlining
  - Restrictive covenants
  - Urban renewal/ highway construction
  - Blockbusting
  - Steering (audit studies)
  - Access to mortgages



Redlining

LEGEND
- Best
- Still Desirable
- Definitely Declining
- Hazardous



Segregated by Design: St. Louis

Segregated by Design: St. Louis

Effects of Structural Racism

- Racial residential segregation
  - Quality of schools
  - Neighborhood resources
  - Percentage of poverty
  - Wealth
- Health
  - Stress
  - Access to resources
  - Environmental Exposures
  - Access to care
- Cultural and social capital

Would you panic if a Negro moved next door?

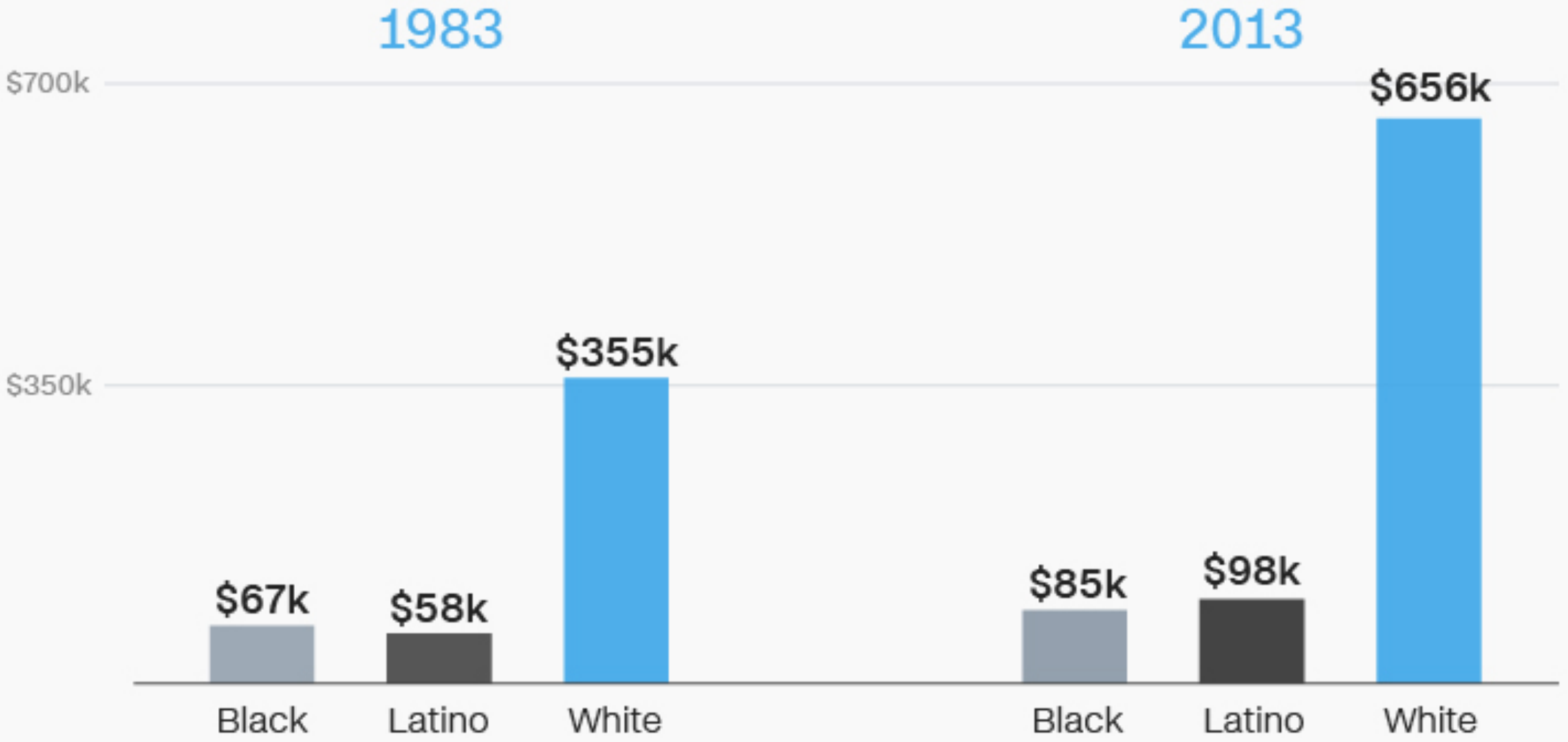
"I'm broad-minded," said one home owner when Negroes moved into his block. But a short time later he panicked—and sold his house at a loss.

In this week's Post, you'll read how speculators decide which blocks are "ripe" for racial change. How they use vicious tactics to force out the whites. And how one speculator brags that he could "bust" your block in no time at all.

The Saturday Evening POST

July 14-21 issue. A Curtis Magazine

Whites see wealth almost double



SOURCE: SURVEY OF CONSUMER FINANCES AS CALCULATED USING EDWARD WOLFF'S FRAMING IN 'HOUSEHOLD WEALTH TRENDS IN THE UNITED STATES, 1962-2013: WHAT HAPPENED OVER THE GREAT RECESSION?

*NOTE: AVERAGE HOUSEHOLD WEALTH

Fundamental Causes

Social Conditions as Fundamental Causes of Disease*

BRUCE G. LINK
Columbia University and New York State Psychiatric Institute

JO PHELAN
University of California, Los Angeles

Journal of Health and Social Behavior 1995, (Extra Issue):80–94

Over the last several decades, epidemiological studies have been enormously successful in identifying risk factors for major diseases. However, most of this research has focused attention on risk factors that are relatively proximal causes of disease such as diet, cholesterol level, exercise and the like. We question the emphasis on such individually-based risk factors and argue that greater attention must be paid to basic social conditions if health reform is to have its maximum effect in the time ahead. There are two reasons for this claim. First we argue that individually-based risk factors must be contextualized, by examining what puts people at risk of risks, if we are to craft effective interventions and improve the nation's health. Second, we argue that social factors such as socioeconomic status and social support are likely "fundamental causes" of disease that, because they embody access to important resources, affect multiple disease outcomes through multiple mechanisms, and consequently maintain an association with disease even when intervening mechanisms change. Without careful attention to these possibilities, we run the risk of imposing individually-based intervention strategies that are ineffective and of missing opportunities to adopt broad-based societal interventions that could produce substantial health benefits for our citizens.

Epidemiology has been enormously successful in heightening public awareness of risk factors for disease. Research findings are frequently and prominently publicized in the mass media and in rapidly proliferating university-based health newsletters. Moreover, there is evidence that the message has been received and that many people have at least attempted to quit smoking, include more exercise in their daily routine, and implement a healthier diet.

With few exceptions, however, the new findings generated within the field of epidemiology have focused on risk factors that are relatively proximate "causes" of disease, such as diet, cholesterol, hypertension, electromagnetic fields, lack of exercise, and so on. Social factors, which tend to be more distal causes of disease, have received far less attention.[1] This focus on

Fundamental Causes

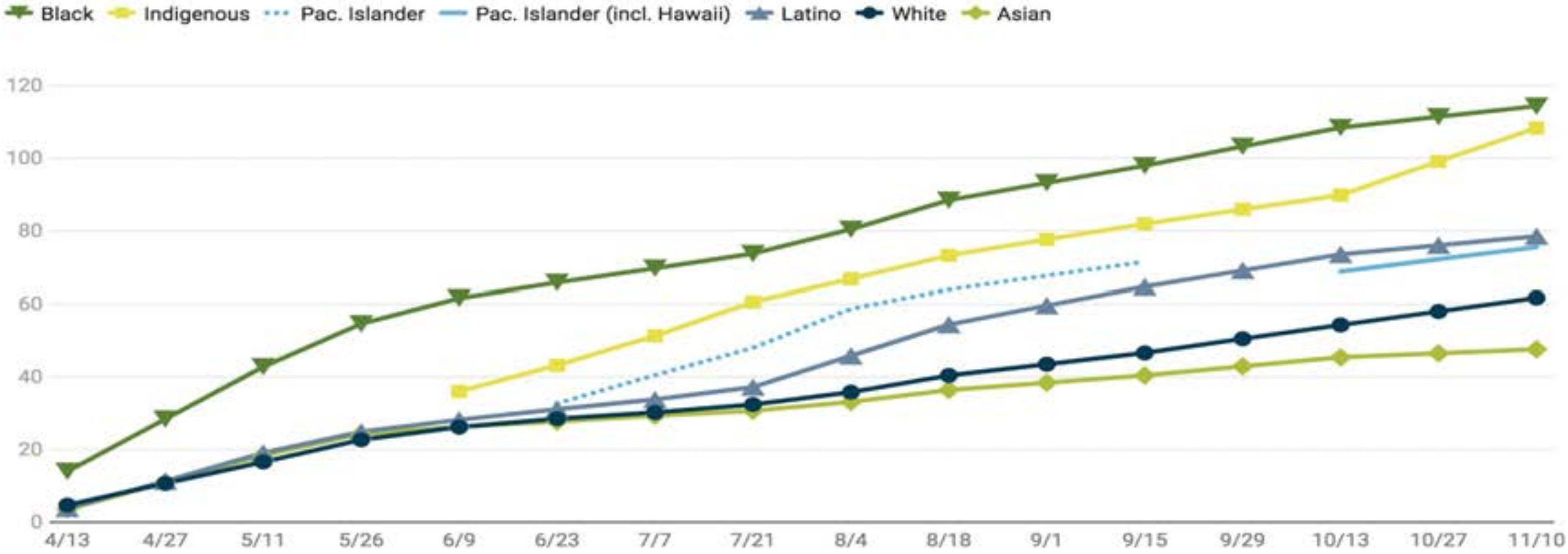
- Access to resources that help people avoid diseases through multiple mechanisms (e.g. neighborhood)
- Affect multiple disease outcomes through multiple mechanisms
- Continue to affect different outcomes when risk profiles change
  - Diseases come and go but the distribution of different diseases are similar over time
  - Even if you modify intervening mechanisms or eradicate some diseases, an association between a fundamental cause and disease will reemerge
  - Examine how Coronavirus initially spread and who has suffered the most

COVID-19 and Health Equity

- The patterning of Coronavirus transmission as well as severity of COVID-19 cases has not been equitable.
  - Vulnerable populations (e.g. older adults, frontline healthcare workers, homeless people, undocumented immigrants, incarcerated people)
  - Black and Brown communities have been disproportionately affected
    - 1 in 390 Indigenous Americans has died (256 deaths per 100k)
    - 1 in 555 Black Americans has died (180 deaths per 100k)
- (APM Research Lab)

Black & Indigenous Americans experience highest death tolls from COVID-19

Cumulative actual COVID-19 mortality rates per 100,000, by race and ethnicity, April 13-Nov. 10, 2020



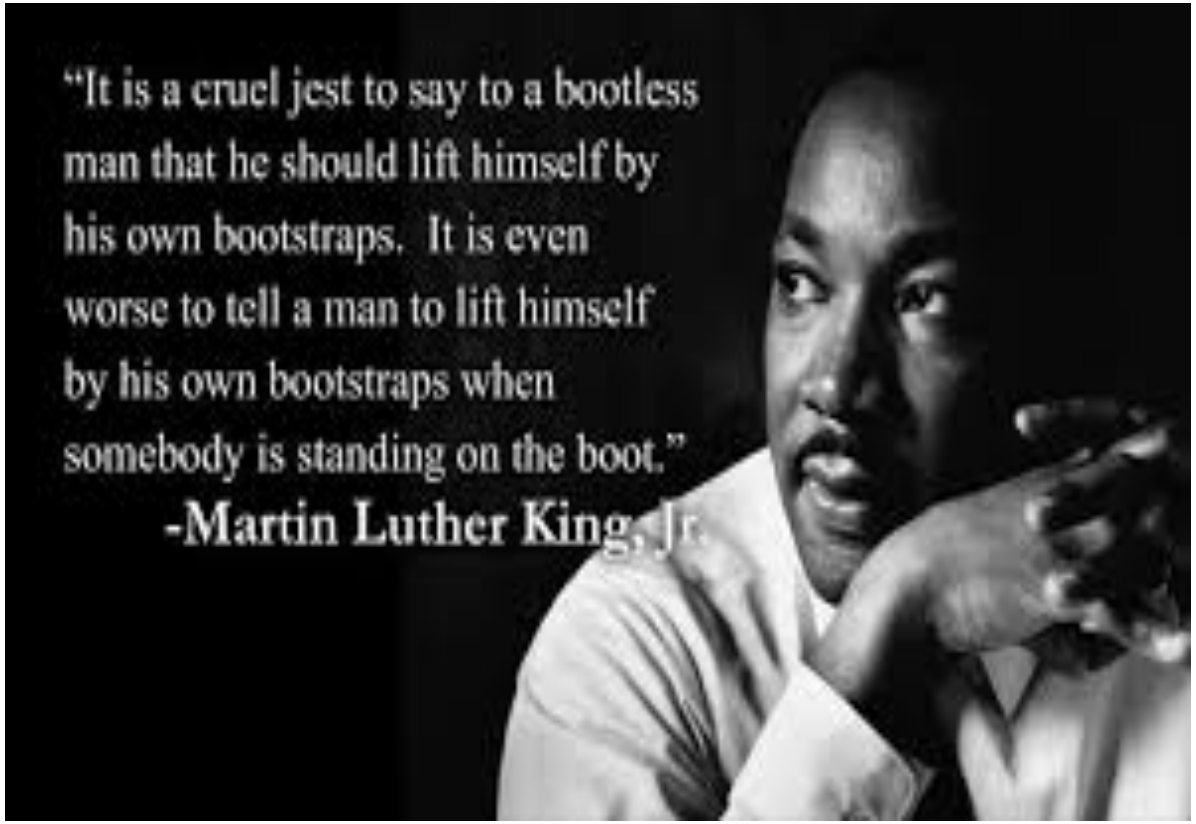
Note: All intervals are 14 days apart, except for 5/11-5/26, which is a 15-day period. 9/1, 9/29 and 10/27 data has been interpolated. Pacific Islander data prior to 10/13 did not include Hawaii, as it was not releasing data; its inclusion resulted in an overall drop in the Pacific Islander rate, which begins a new series at 10/13.

Source: APM Research Lab · Get the data · Created with Datawrapper

Disproportionate Death Rate

- BIPOC have a COVID-19 death rate at least twice as high as White Americans
- "If they had died of COVID-19 at the same actual rate as White Americans, about 21,200 Black, 10,000 Latino, 1,000 Indigenous and 70 Pacific Islander Americans would still be alive."
  - APM Research Lab

Fundamental Causes



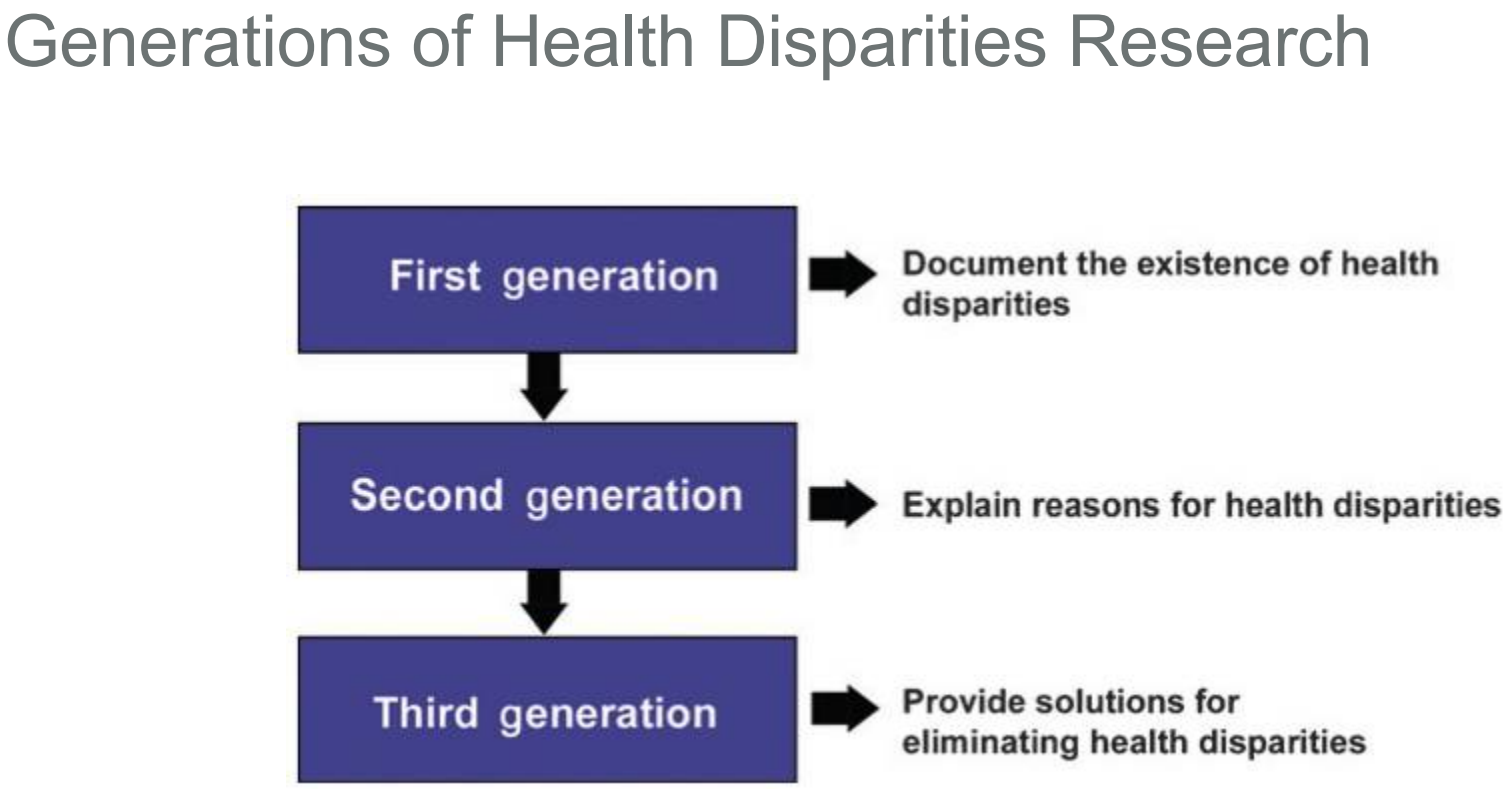
- Employment in essential services
  - Substantially higher in Black and Latino household, especially healthcare workers
- Intergenerational households
  - Substantially more likely to have more people in household
- Lack of access to healthcare and testing

Review of Key Concepts

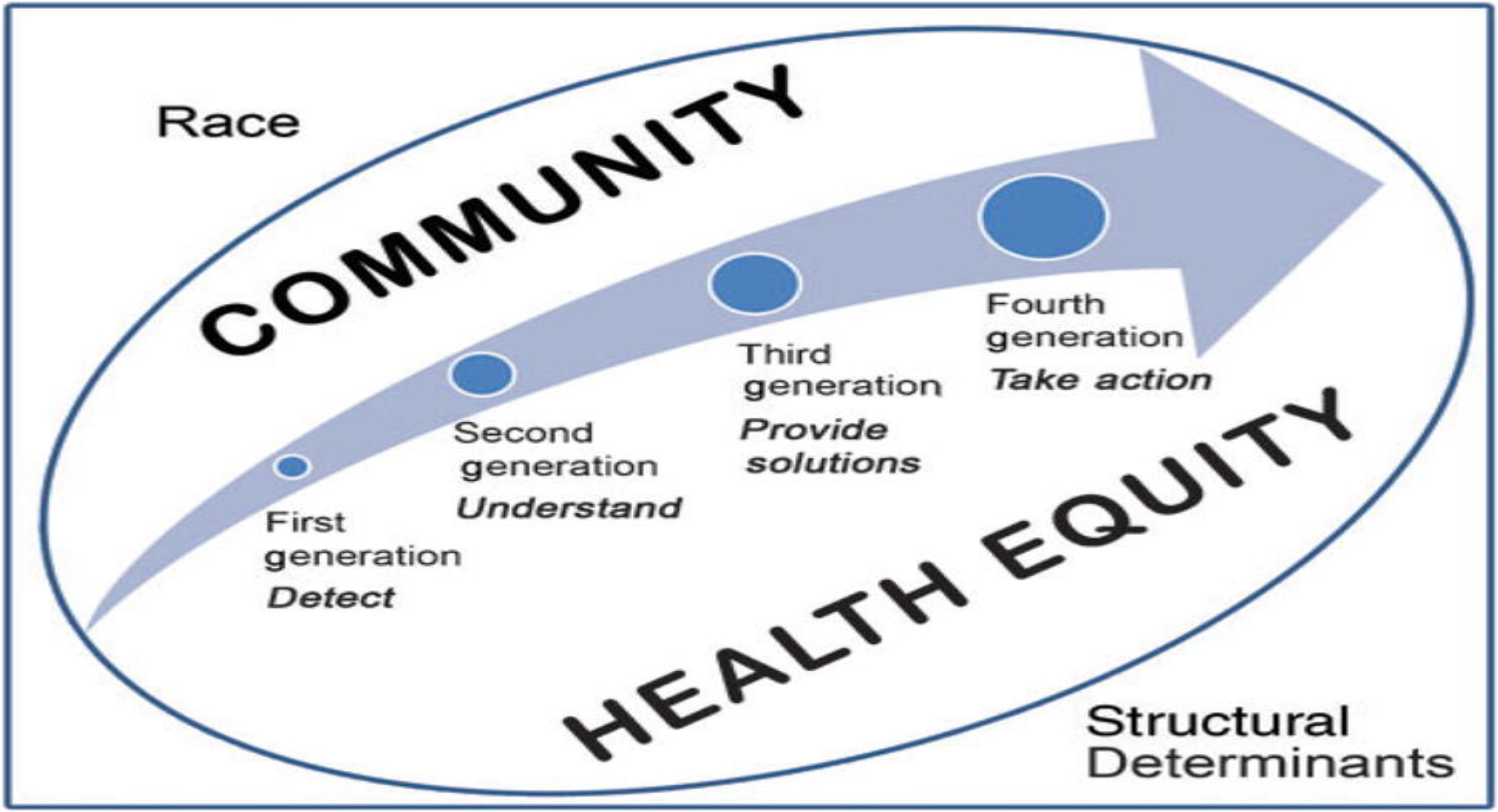
- Defined health
- Defined health disparities and health equity
- Underscored the importance of context in health
  - Context is not random or due to character flaws
  - Strong influence of structural factors (e.g. policies and practices)
- Described fundamental causes and applied the concept to COVID-19

WHERE DO WE GO FROM HERE?

Toward a fourth generation of disparities research to achieve health equity



Thomas SB, Quinn SC, Butler J, Fryer CS, Garza MA. Toward a fourth generation of disparities research to achieve health equity. *Annu Rev Public Health*. 2011;32:399-416. doi:10.1146/annurev-publhealth-031210-101136



Thomas et al., 2011

Critical Race Theory Praxis

- Race as a social construct
- Critical race consciousness
- "Center on the margins" (amplify the voices of people who have been marginalized)
  - Ford, C. L., & Airhihenbuwa, C. O. (2010a). Critical Race Theory, race equity, and public health: toward antiracism praxis. *American Journal of Public Health*, *100 Suppl*(Suppl 1), S30–S35.
  - Ford, C. L., & Airhihenbuwa, C. O. (2010b). The public health critical race methodology: praxis for antiracism research. *Social Science & Medicine (1982)*, *71*(8), 1390–1398.

Sociopolitical Ideology

- American Creed– emphasis on individual efforts
  - Assumes that outcomes are different because effort and choices are different
- Ahistorical perspective
  - I never owned a slave; I worked hard
- Deserving-ness and policies
  - Differential access to New Deal era policies
  - Redlining

Know Your Audience: Influence of Politics

- RWJF Commission on Health– New Way to Talk about the SDOH
- Democrats
  - Poor health is considered to emerge from an interrelated system of social, cultural, economic, and biological factors.
  - American society is a complex system founded on rights, one of which is (or should be) the right to health.
  - Disparities reflect a deep social imbalance

Communicating about SSDOH

- Democrats see health inequities as unjust
  - Equality is the goal
  - Want to level the playing field
  - Burden is on society
- Republicans often see health equity is unrealistic and unfair
  - Equality interpreted as the lowering of some individuals status and raising others in order to have a uniform level of health
  - See imbalance in health as natural
  - Burden is on individuals

Etiology

- **Sick Individuals and Sick Populations** by Geoffrey Rose
- High-risk versus population strategies
- Population strategy is:
  - Radical
  - Has large potential for population
  - Behaviorally appropriate
  - Threatened by “prevention paradox”

Curb-Cut Effects

- Focus on those who are most vulnerable/ marginalized
- Everyone benefits
  - New Deal Era Policies

How do we address social determinants?

- Do we see people or problems?
- Do we care?
  - Even if we care, what do we care about?
- Alignment of resources
  - Who's at the table? Beyond symbolic representation or palliative policies
  - Science Policy
- Politics
  - Communication and Voting
  - Policies (Curb-Cut policies)
  - Who is counted? (Census)

Thank You!

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