

RACISM IS A PUBLIC HEALTH ISSUE: OVERVIEW (PT. 0)

Racism infects all areas of life for Black Americans & is structurally embedded in crucial facets of our society.

Racism: “an organized social system in which the dominant racial group, based on an ideology of inferiority, categorizes & ranks people into social groups (i.e., “races”) & uses its power to devalue, disempower, & differentially allocate valued societal resources & opportunities to groups defined as inferior.” ([read more](#))

Racism is a **social determinant of health**: it affects the [conditions](#) in which people are born, grow, live, work, & age to influence quality of life and well-being.

Structural racism: “the [normalization](#) & [legitimization](#) of an array of dynamics (historically, culturally, institutionally, interpersonally) that routinely advantage whites while producing cumulative & chronic adverse outcomes for people of color.”

Myth #1: The persistently high rates of poverty experienced in Black communities is due to their own actions.

Fact: For centuries, policies geared towards growing [generational wealth](#) for Americans have starkly excluded Black families

- Far from being lost to history, racially charged policies vastly outweigh superficial reforms
- These policies continue to burden & disenfranchise:
 - Areas that were racially [redlined](#) still [suffer the effects](#)
 - Unfair [tax incentives](#)
 - Housing & labor market [discrimination](#)

Myth #2: Poverty is the sole contributing factor to health disparities.

Fact: Many studies account for poverty & find that the effect of race goes beyond economic differences

- 40% of the quality measures in the [2012 National Healthcare Disparities report](#) show that Black patients receive inferior care
- Ex: racial gaps for breast cancer & maternal mortality are widening

[Read more: Reducing Racial Inequities in Health](#)

Myth #3: Health disparities are largely driven by genetic differences rather than a formidable history of socioeconomic oppression.

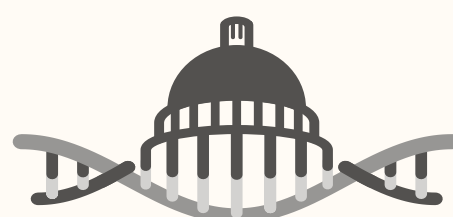
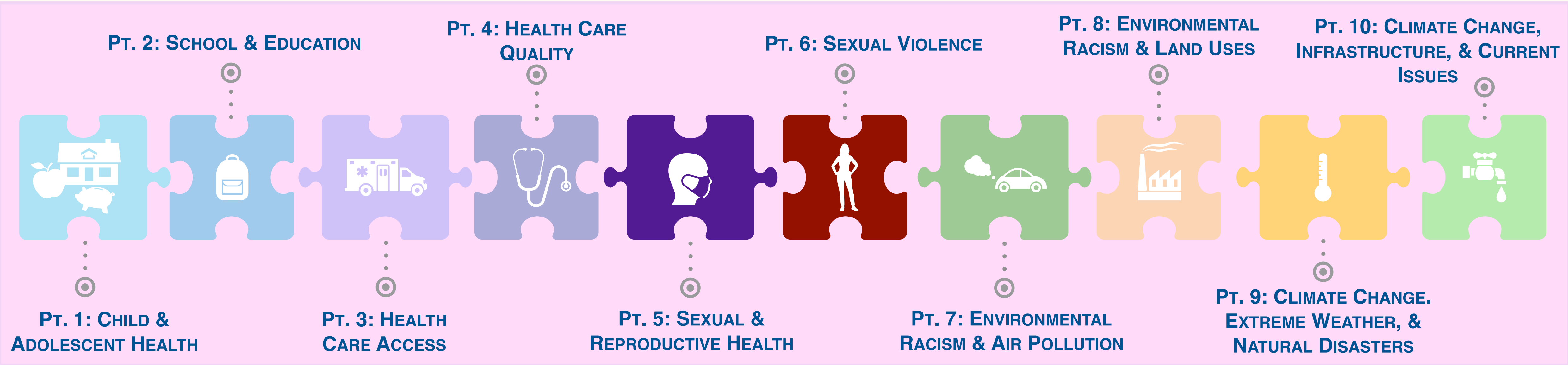
Fact: This has been largely [disproven](#)

- Ex: The 250% [greater likelihood](#) of Black than white men of dying from prostate cancer [disappears](#) when they have been given a similar quality health care

Americans [overestimate progress](#) that has been made toward racial economic equality.

84% of Americans view their health as largely under their control & something for which they have to take personal responsibility

1.5x the number of nonwhite vs. white people think that neighborhood, housing quality, education, & job are [determinants](#) of health



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Download infographic with or without hyperlinks at: www.scipolucla.com/2020/07/30/racismpublichealth

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RACISM IS A PUBLIC HEALTH ISSUE: CHILDHOOD & ADOLESCENCE (PT. 1)

Wealth & Income Inequality

31%

of Black children are in poverty vs. 10% of white children

42%

of children living with a single mother are in poverty

Hunger leads to chronic illnesses (e.g., diabetes), cancer, & low birth weight

100%

of the 10 U.S. counties with the greatest food insecurity are over 60% Black

2x

more likely for Black vs. white children to experience hunger (1 in 4)

Read more: [Nine Charts about Wealth Inequality in America](#)

The systematic oppression & marginalization of Black communities creates financial, food, & housing inequalities that disadvantage children by disrupting home stability, learning environments, & development.

Parental Support

73%

of white children live with married parents vs. 33% of Black children

56%

of Black students live with a single mother vs. 17% of white students

Mass incarceration disproportionately harms Black Americans & adversely affects the health of children:

25%

chance of having an incarcerated father for Black children born in 1990

16%

of those children have fathers that did not finish high-school

51%

chance of having an incarcerated father for children whose fathers did not finish high school

23%

of children with an incarcerated father are expelled or suspended from school

79%

higher likelihood of school interruption with parental incarceration

Stable & Affordable Housing

Housing instability (other than homelessness) is associated with adverse health. For instance, Black vs. white children have:

2x

the likelihood of having dangerous levels of lead in their blood



10%

higher concentration of arsenic & cadmium in the body

cardiovascular disease, diabetes, *in utero* dysregulation of cognitive development

carcinogen; toxic effects on kidneys, skeletal, respiratory systems



- Poor housing quality (i.e., allergen & pest exposure) is associated with asthma & Black vs. white children are over **2X** as likely to have asthma

Read about the [health detriments of neighborhood segregation, including adult mortality & birth outcomes](#)

Read about the [history of housing inequality](#)



Foster Care

1 in 9

Black children enter the foster care system vs. the national average of 1 in 17

11%

of students with interrupted school enrollment reported being in the foster system vs. 2% of students with continuous school enrollment

Homelessness

In 20 states, the homeless student population grew by **≥10%** from 2014-17 (and 7% nationally)

>1.3 million

students enrolled in public schools during the 2015-16 school year were homeless

20%

of students experiencing homelessness are Black

87%

Homeless youth are more likely to drop out than their non-homeless peers

2.7x

as likely for Black vs. White students to experience homelessness

Clean & Affordable Food

Nonwhite neighborhoods tend to have fewer facilities that encourage healthy diets & physical activity (e.g., supermarkets & recreational outlets) & more health-restricting facilities (e.g., liquor stores, fast food restaurants, polluting facilities), chronic stressors (i.e., crime), & advertisements for unhealthy behaviors (e.g., tobacco & alcohol)

For every 10% increase in the percentage of Black children/adolescents:

5.9%

higher proportion of menthol cigarette ads near California high schools

And TV advertisements showed:

20%

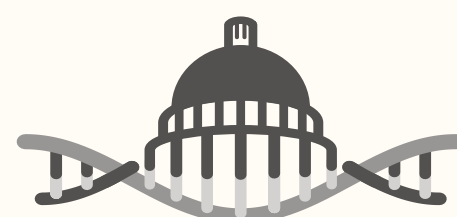
more sweets

16%

more fast foods

23%

more sugar-sweetened drinks



RACISM IS A PUBLIC HEALTH ISSUE: SCHOOL & EDUCATION (PT. 2)



White school districts average 23 billion more in annual funding than nonwhite districts.

10x

difference in spending between the top & bottom 10% wealthiest U.S. school districts

3x

increase in schools with >90% nonwhite student bodies between 1991~2007

\$1500

more per student received by poor white vs. nonwhite districts

>50%

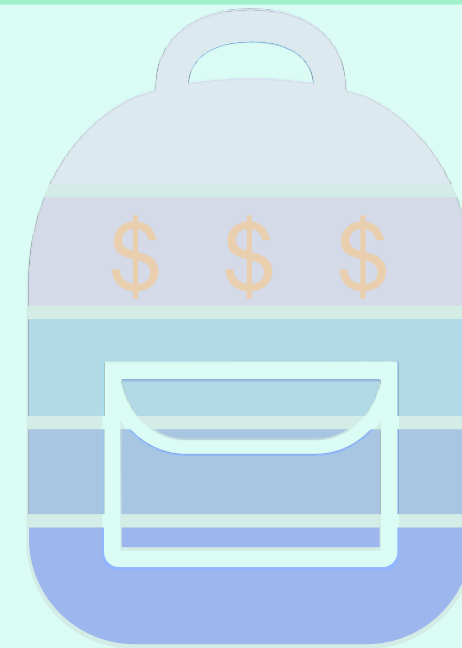
of students are enrolled in segregated districts (i.e., >75% white/nonwhite)

5x

more likely for students of color to attend a high-poverty public school

Read more: [How Non-Minority Students Also Benefit from Racially Diverse Schools](#)

Read more: [The Return of School Segregation in Eight Charts](#)



Racially-skewed resource allocation among school districts influences health & quality of education for Black students.

Black children are more likely to have less experienced teachers, have outdated coursework, & be punished at school

- School with high vs. low enrollment of nonwhite students have less access high-level math & science courses:

23% less Calculus is offered

19% less Physics

13% less Chemistry

Majority Black schools are more likely to be near busy roads (related to asthma) & toxic chemical facilities

- Air pollution in school weakens health & school performance

Black students are 40% more likely to be chronically absent.

- Chronic absenteeism is a stronger predictor of academic achievement than test scores
- Has academic consequences (falling behind, dropping out of school) & long-term effects on health & employment

2x

as likely for Black vs. white children to be chronically absent in California from 2016-2017 (missing ≥10% of school)

~50%

of lost school days in 2013 due to asthma, which disproportionately affects Black children

More than 14 million students are in schools with police officers but no counselor, nurse, psychologist, or social worker.

- Guidance counselors improve school climate, school safety, & graduation rates

75%

of children receiving mental health services get them at school

21x

more likely for students to visit school health centers than outside centers

3x

as likely for Black male students who use school health centers to stay in school than their peers who did not

2x

as likely for public schools with a higher proportion of white students to have the recommended number of guidance counselors

62%

less likely for Black children with ADHD to receive in-school services than white children

2-3x

as many police officers in schools than social workers in many states

schools patrolled by police officers:

1%

1975

48%

2018

...and **69%**

of those are majority nonwhite secondary schools

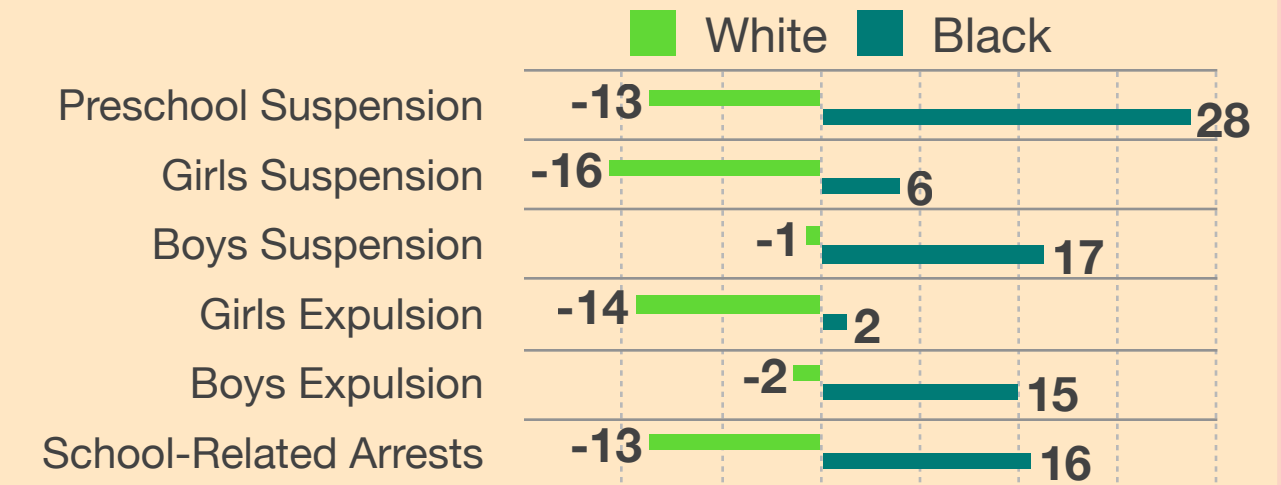
- No evidence that they improve safety
- In many cases, they cause harm, most starkly for Black students
- Many large districts failed to report the accurate number of school police
- Ex. Los Angeles Unified School District underreport school police by ≥72% in 2016 (reported <220, but ≥338 present)

Listen to this [NPR report](#)

Read: [Cops & No Counselors: How the Lack of School Mental Health Staff is Harming Students](#)

The imbalance between resources dedicated to the punishment rather than the well-being of students is accompanied by over disciplining & criminalization of Black students.

Compared to their white classmates, Black students are overrepresented across types of disciplinary actions, types of school (i.e., public, private, charter, etc.), & poverty level ([Read details](#))



Data pertains to K-12 students, except for "preschool suspension." Graphs shows overrepresentation of punishments vs. enrollment of Black students. For instance, Black boys make up 8% of K-12 enrollment, but 25% of suspensions, meaning they are overrepresented by 17%.

This leads to higher rates of juvenile incarceration for Black children:

5x

more likely to be incarcerated than white youth in 2015

11x

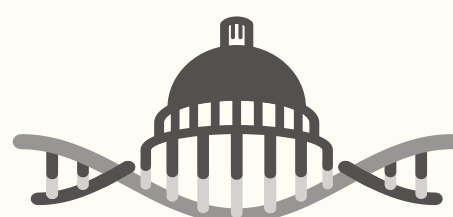
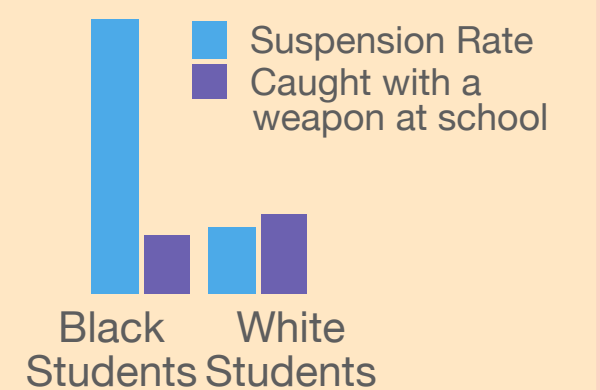
higher rate for Black vs. white juvenile offenders to be directly filed into adult court in California in 2014

73% of incarcerated youth in 2015 were non-violent offenders...

...and **69%** were youth of color

Read about ["Zero tolerance" policies that mandate suspension/expulsion & disproportionately affect Black students](#)

Meanwhile, certain causes for criminalization are present at similar rates between Black & white students:



RACISM IS A PUBLIC HEALTH ISSUE: HEALTH CARE ACCESS (PT. 3)

Inadequate Facilities

Driven in part by institutional racism, hospitals & medical facilities in majority Black communities are often underfunded, understaffed, & lacking in [resources](#).

Too Few Facilities

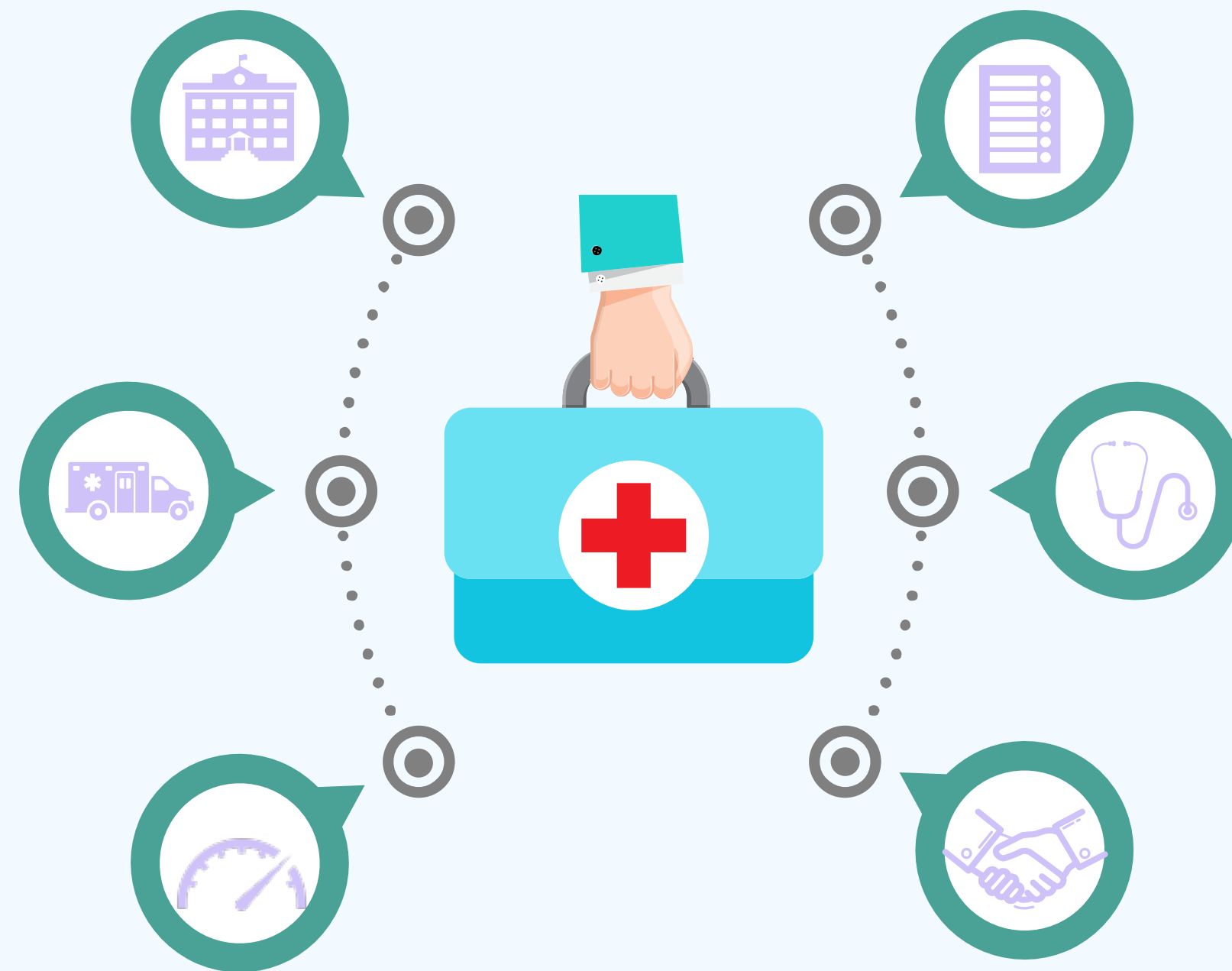
Health professional shortage areas ([HPSAs](#)) contain a [disproportionate](#) number of Black residents. Patients must travel long distances for long wait times, frequently for a limited selection of health care providers.

Segregation Areas

Women who lived in areas with greater Black segregation from 1992-2002 were 27% [less likely](#) to receive adequate breast cancer care.

[Read more about harmful effects of racial segregation on healthcare](#)

Due to long-term structural racism, Black Americans face unique barriers to accessing reasonable & appropriate healthcare.



Incompetent Attention/Care

Black patients experience longer [wait times](#), a lower chance of being [admitted](#), less [attention](#) from doctors & nurses, and are also less likely to receive [tests](#) & screenings that are vital for proper diagnosis & treatment.

Medical School Biases

[Explicit](#) & implicit biases in medical schools (i.e., statements by professors, curricula, culture, norms) diminish medical students' [desire](#) to practice in underserved & minority communities.

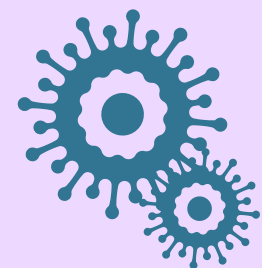
Justified Mistrust

After [centuries of abuse](#) by medical professionals & institutions (e.g., being lied to, being used against their will for gruesome procedures), Black Americans have a justified [distrust](#) of the medical system

Health Insurance



- Even with the ACA, Black Americans are 2x more likely to be [uninsured](#) (1/10 Black vs. 1/20 white Americans)
- Access to health care [is associated with](#) reduced racial disparities and earlier cancer diagnosis & treatment
- Compared to white families, Black Americans face:
 - 2x** the [percentage of household](#) income spent on health care annually, despite 10x less average household wealth than white families
 - 2x** lower likelihood of qualifying for coverage because of racial bias in the [commercial algorithms](#) used by health care systems
 - 60%** greater likelihood for Black workers to be [uninsured](#) than white workers
 - 22%** or [\\$8,000 more](#) expenses for end-of-life care



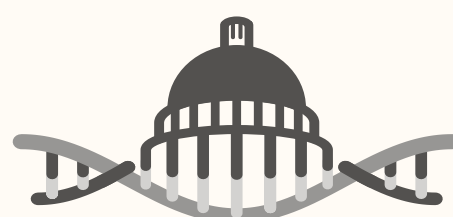
Black Americans die from COVID-19 at 2.4x the rate of white Americans & have a compromised ability to get tested

[Read more: Black workers face two of the most lethal preexisting conditions for coronavirus—racism and economic inequality](#)

- ▶ Zip codes with high populations of white inhabitants have [almost double the amount of testing sites](#) than predominantly nonwhite zip codes
- ▶ Black Americans are 70% more likely to live in [vulnerable areas with zero testing sites](#)
- ▶ Rural Black Americans are 170% more likely to live in areas that have increased COVID-19 deaths & zero testing sites



Black patients have the highest [mortality](#) for all cancers vs. white, but 24 of 31 [cancer drug trials](#) approved since 2015 enrolled <5% Black patients. This can have tangible results on the effectiveness of treatments, like with the [HPV vaccine](#).



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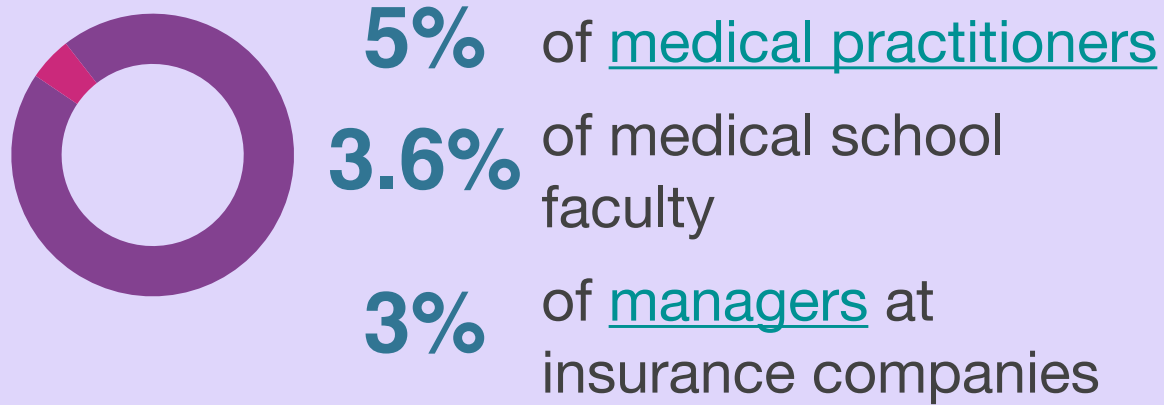
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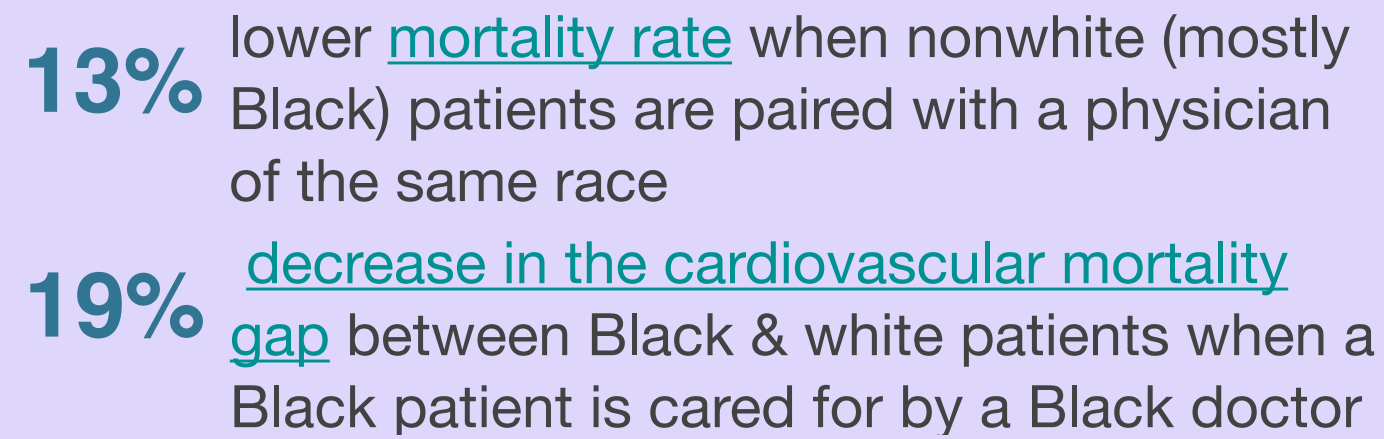
RACISM IS A PUBLIC HEALTH ISSUE: HEALTH CARE QUALITY (PT. 4)

Levels of physician **explicit & implicit bias** impact medical decisions.

After decades (centuries) of structural racism, Black people make up only:

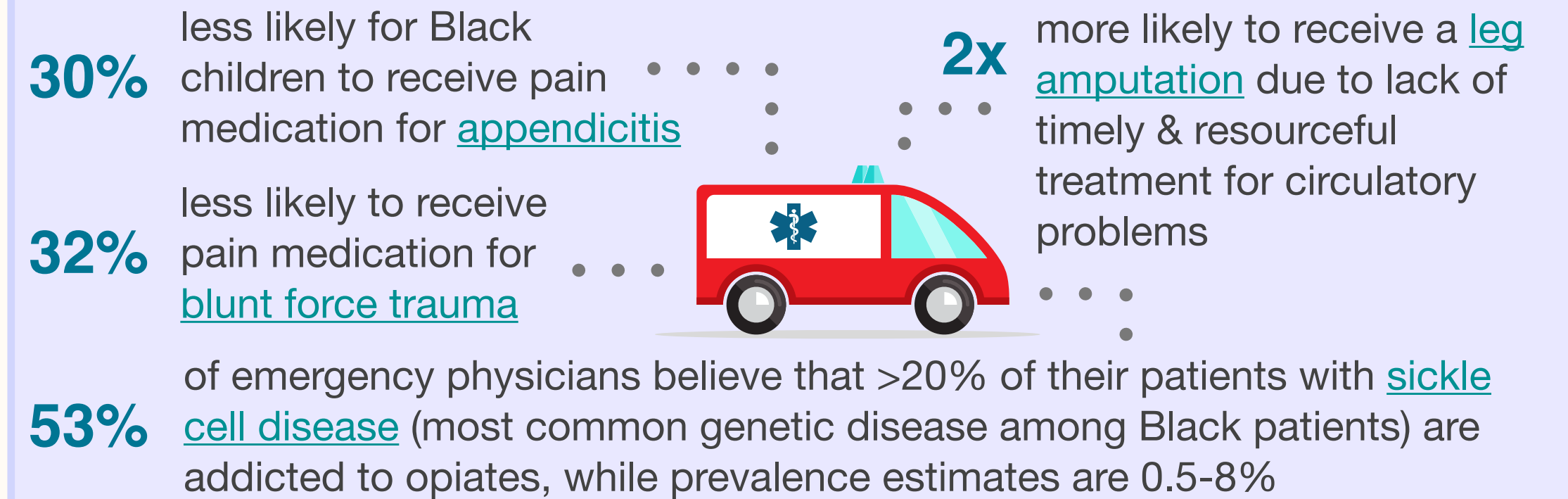


But health outcomes are **better** when physicians & patients are the same race:

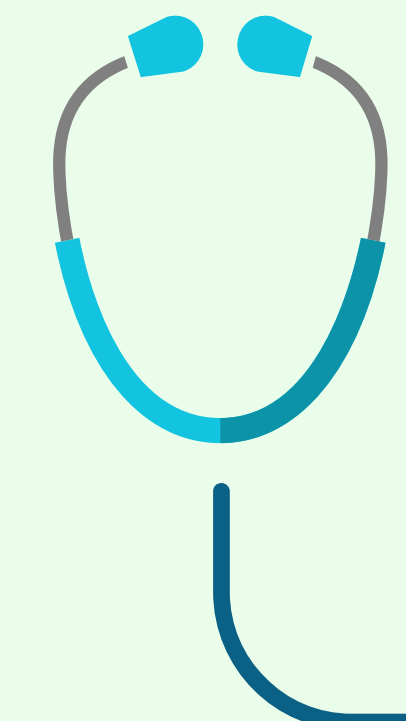
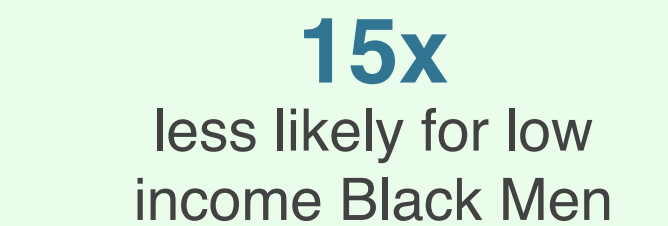
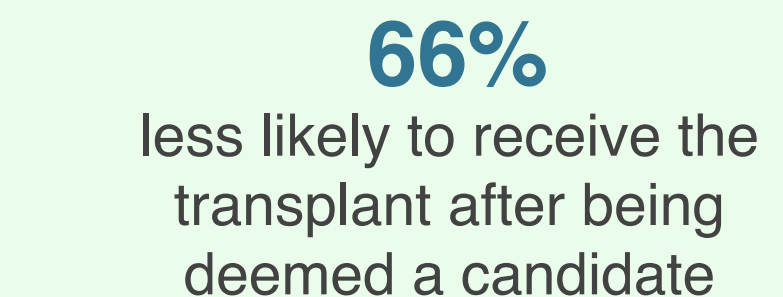
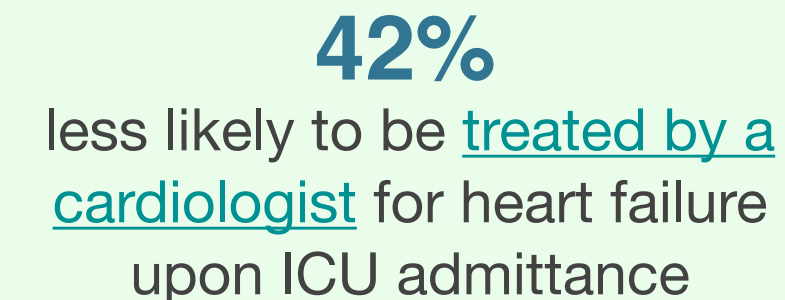
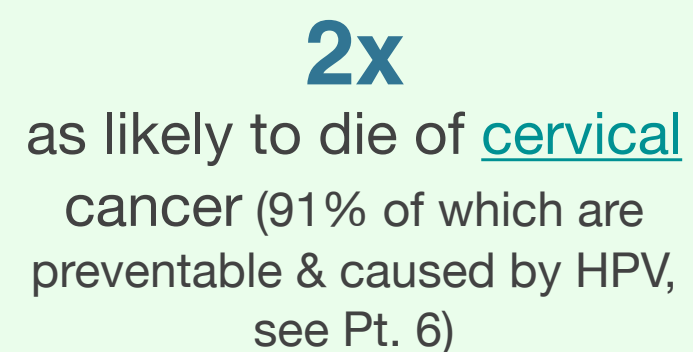
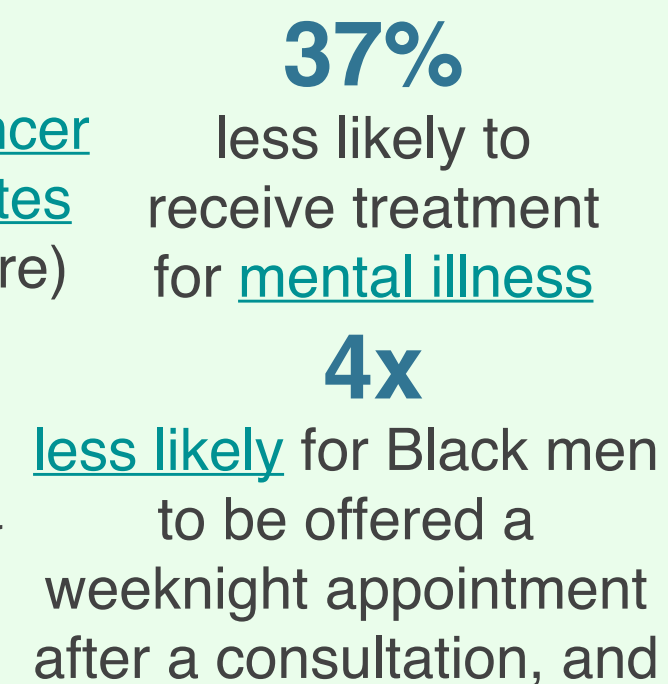
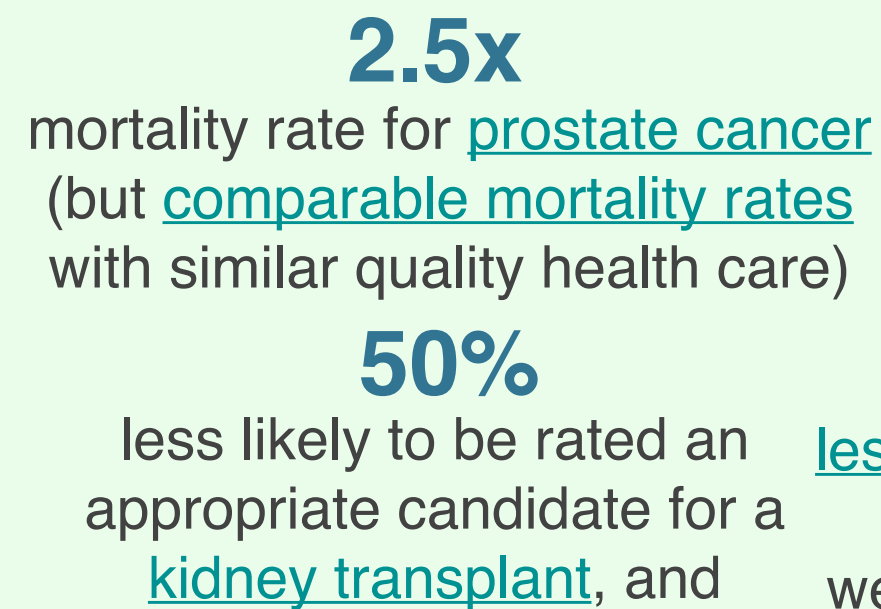
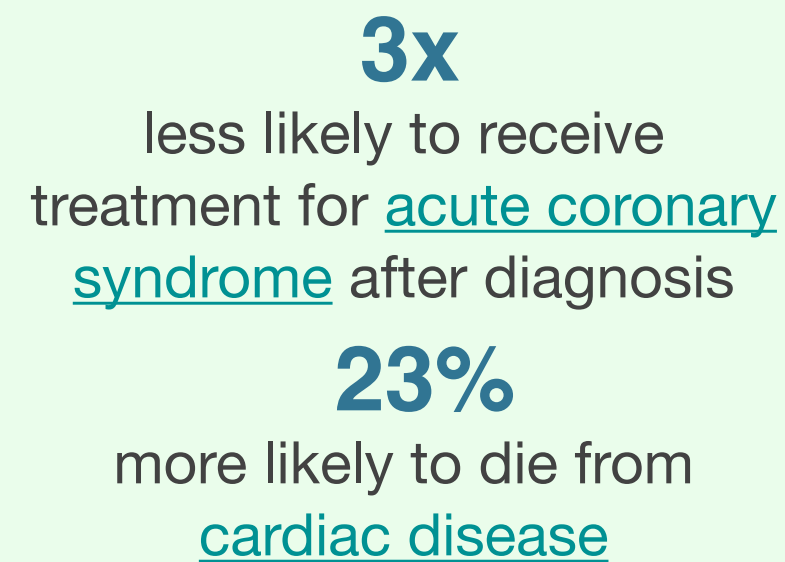
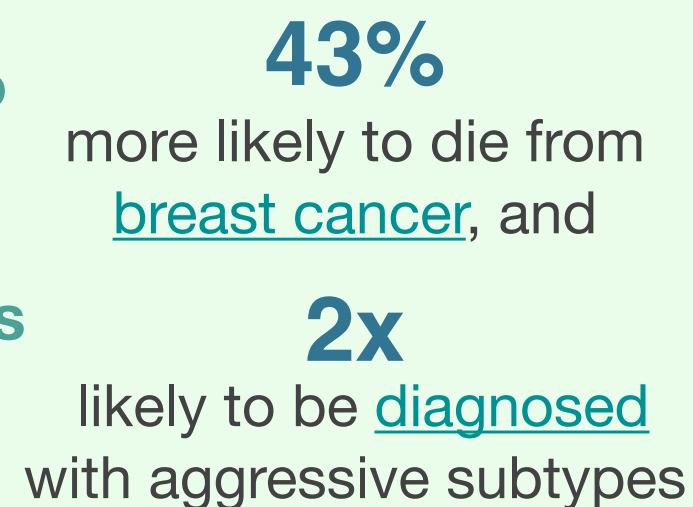


[Watch John Oliver explain implicit biases in medicine](#)

Implicit & explicit biases become more prevalent under time pressure, cognitive overload, & fatigue, which are common conditions for emergency doctors. Compared to white patients, Black patients are:



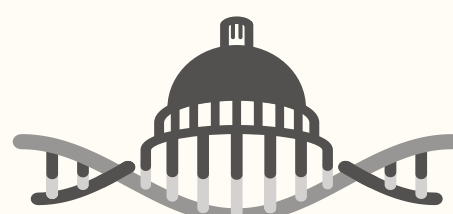
Compared to white patients, Black patients have/are:



Effects of cumulative stress on the body are worse for Black than white Americans.

After analyzing various socioeconomic factors, race was found to consistently predict a higher effect of [cumulative stress](#) on the body (“[allosteric stress](#)”) & worse health outcomes for Black people of all ages (**3x** higher allosteric load by age 55-66 for Black women & **1.7x** for Black men compared to white individuals)

- Racism-induced trauma triggers a physiological response that elevates [inflammation](#), which increases susceptibility to [chronic illness](#) (ex. heart attack, neurodegenerative disease, cancer metastasis)
- Black vs. white Americans are **~2x** more likely to die from [heart disease](#), [stroke](#), & [diabetes](#) before 50 years old



RACISM IS A PUBLIC HEALTH ISSUE: SEXUAL & REPRODUCTIVE HEALTH (PT. 5)

Black women face unique & severe challenges to their sexual & reproductive health stemming from historical & current inequalities in healthcare and economic opportunities.

These dangers are amplified for Black transgender women:

>80% of murdered trans people are women of color
5.5x more likely for Black than white transgender women to be physically attacked, sexually assaulted, or forced to engage in sexual activity to avoid arrest
63x more likely for Black transgender women to be living with HIV than the general population

[Read more](#)



Maternal Health

Compared to white mothers, Black mothers have:

- 3.2x** maternal mortality rate
- 2.2x** infant mortality rate
- ~2x** preterm birth rate (which, with low birth weight, accounts for 17% of 2017 infant deaths)
- >2x** less likely to get care for postpartum depression
- ≤4%** of OB-GYNs & certified nurse midwives are Black

Read more: *Our Bodies, Our Lives, Our Voices: The State of Black Women & Reproductive Justice*



Health Insurance

Compared to white women, Black women are:

- 1.7x** more likely to be uninsured in 2018
- 2.3x** less likely to receive private insurance
- 2x** less likely to receive coverage for childbirth
- 1.4x** more likely to have health insurance coverage discontinued between preconception & postpartum



Incarceration

- 2x** imprisonment rate for Black vs. white women
- 6x** rate in 2000
- 12** states require correctional facilities to provide menstrual products
- 144** unapproved & nonconsensual sterilizations (tubal ligations) in California from 2006-2013
- 29** states allow shackling pregnant women (can cause hip dislocation & muscle tears)

Read more about the health impacts of incarceration for families



STI/STDs

- Systematic violence & oppression against Black communities (i.e., mass incarceration, inequitable education) has increased vulnerability to STIs.
- Black men & women have:
 - 4.8x** higher diagnosis rate for syphilis &
 - 7.7x** for gonorrhea
 - 5.6x** for chlamydia
- 42%** of HIV diagnoses are Black patients, but Black Americans make up only 13% of the population
- 1/3** of HIV infections are Black girls age 14-24



Sex Education

- 58%** of Black Americans reside in Southern states, which have the highest rates of several STIs (2015) & abstinence-only programs
- >80%** of “abstinence-only curriculum” conveyed false medical information
- ≈rates** premarital sex & STIs with abstinence-only curriculums
- >90%** of Black parents & students support comprehensive sex education



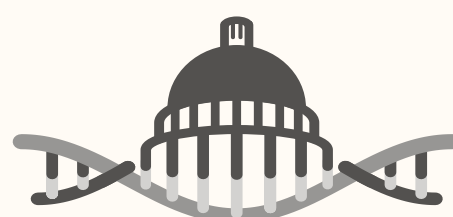
Family Planning

Family planning & access to reproductive health care allows women to have control over their academic, economic, & employment prospects.

Black vs. white women & girls are:

- 2x** more likely to experience teen pregnancies
- 3x** more likely to be single heads of households
- 3.6x** more likely to be single parents

Read: *Prison, Foster Care, and the Systemic Punishment of Black Mothers*



RACISM IS A PUBLIC HEALTH ISSUE: SEXUAL VIOLENCE (PT. 6)

Structural racism disproportionately burdens Black communities with adverse childhood experiences that act together to worsen outcomes for young girls.

1 in 9 Black children (vs. 1 in 57 white children) had a parent in prison in 2010.

~80% of incarcerated women are mothers & most are single parents

23% of children with an incarcerated father are expelled or suspended from school

Read more: [Mass incarceration & children's outcomes](#)

Black youth made up **23%** of foster care in 2016, but only 14% of the population.

~1 in 5 Black children referenced to child welfare have a recently arrested parent (vs. 1 in 10 white children)

1 in 9 Black children enter the foster care system (vs. the national average of 1 in 17 children)

- Runaway foster youth have the **highest risk** of juvenile or adult incarceration

~80% of female child sex trafficking victims in Los Angeles in 2014 had been in the child welfare system & **90%** were Black.

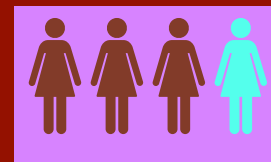
81% of sexually abused foster youth who ran away became victims of child sexual trafficking (vs. 12% who were sexually abused but did not run away)

84% of girls who were sexually exploited have experienced homelessness (e.g., running away)

57% of all "juvenile prostitution" (sexual child abuse) arrests are of Black children

The consequences of generational oppression & abuse are criminalized instead of treated & can feed into the sex abuse to prison pipeline.

Read more: [The Sexual Abuse To Prison Pipeline: The Girls' Story](#)



1 in 4 Black girls is sexually abused by the age of 18.

- Childhood sex abuse is the strongest predictor of re-arrest for girls

3.5x incarceration likelihood for Black vs. white girls in 2017

Read more: [Black Women and Sexual Assault](#)

The majority of Black girls are arrested for misdemeanors or status offenses (i.e., running away, underage substance use, truancy), most of which are well-characterized responses to abuse.

- Juvenile incarceration is tightly linked with school expulsion

6x more likely for Black than white girls to be suspended due to discriminatory "Zero Tolerance" school policies

- Black girls make up **33%** of juvenile girls detained & committed, but only 14% of the general population

3x the rate of childhood sexual abuse & higher levels of PTSD than their male counterparts

Read more: [Disturbing Disparities: Black Girls and the School- to-Prison Pipeline](#)

66% of child sex trafficking survivors in Alameda County, California in 2017 were Black (**99%** girls)

84% were runaways

41% were foster care youth

67% were on juvenile probation

Read more: [Ending the Commercial Sexual Exploitation of Children: A Call for Multi-System Collaboration in California](#)

Systemic racism in public health & safety institutions has prevented appropriate treatment & care, perpetuating the cycle of trauma & incarceration.

of incarcerated women were **Black** in 2016 (but Black women make up only 11% of the population)

44%

Read more: [The Violent State: Black Women's Invisible Struggle Against Police Violence](#)

4% of the world's female population, but **30%** of all incarcerated women, live in the U.S.



Read more: [Sexual Violence in the Lives of African American Women](#)

85~90%

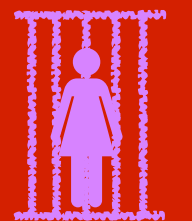
of incarcerated women report extensive histories of emotional, sexual, physical abuse

69% reported PTSD, **60%** depression in 2013

of federally incarcerated women are serving for non-violent drug offenses

56%

And a majority of women are in jail for other nonviolent offenses like property or public order offenses

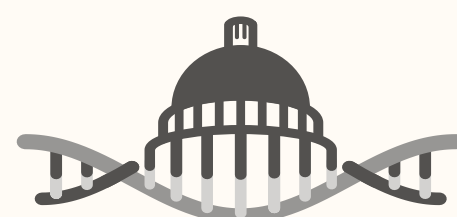


74%

of a Los Angeles court for commercially sexually exploited youth were **Black girls** on average **16 years old**

Substance use is a commonly identified coping mechanism to survive & recover from sexual trauma

88% used alcohol and/or illicit drugs
76% had mental health problems
72% had documented abuse



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RACISM IS A PUBLIC HEALTH ISSUE: ENVIRONMENTAL RACISM & AIR POLLUTION (PT. 7)

Air Pollution is worse in Black communities, which are disproportionately near highways, waste sites, factories, & industrial plants (see pt. 8).

71% of Black Americans (vs. 58% white) live in counties that violate federal air pollution standards

67% higher cumulative impact from environmental hazards for Black vs. white California residents

5.8x more likely for Black vs. white Americans to live in an affected community (i.e., exposure to ozone, particulate matter, pesticides, traffic, hazardous waste)

Air Pollution has severe health effects.



2x the rate of & **10x** mortality from asthma in Black vs. white children

2.3x more likely for asthma to lead to ER visits in Black vs. white adults

- In addition to respiratory & cardiovascular problems, increased exposure to pollution contributes to higher insulin & glucose levels in Black vs. white children in LA (increased risk of type II diabetes)
- Air pollution is also linked to a higher risk of preterm birth, low birth weight, & stillbirth, which is likely compounded by additional barriers to healthcare faced by Black women (see pts 6/7)

#1. Particulate Matter (aka soot)

- Tiny particles of chemicals, soil, smoke, dust, & allergens
- Small particles can lodge in the lungs & bloodstream, worsen bronchitis, lead to heart attacks & death
- Race, not poverty, is the strongest predictor of exposure to fine particulate matter:

54% higher exposure to polluting air by being Black than by being in poverty

Up to 80% more fine particulate matter in areas that are highly racially segregated vs. less segregated neighborhoods (2002-2006)

3x mortality rate from air pollution for Black Americans vs. the overall population

The EPA classifies pollutants into two major categories:

Common air pollutants: these are allowed in certain concentrations that are regulated by the clean air act ("criteria pollutants")

Hazardous air pollutants (HAPs): even small amounts of these are toxic; cause cancer & neurological, respiratory, reproductive, & developmental effects

HAPs: 188 pollutants & chemical groups (e.g., benzene, dioxins, asbestos, cadmium, mercury)

- Found in gas and released by chemical facilities & hazardous waste sites
- **~30%** more likely to develop cancers related to lifetime ambient HAPs in California when Black vs. white
- **10%** more cadmium exposure (carcinogen; toxic effects on the kidneys and skeletal & respiratory systems) in Black vs. white children
- **2x** for Black vs. white children to have dangerous levels of lead in their blood

#2. Ground-level Ozone (aka smog)

- Smog = ground-level ozone + other gases & particle pollution
- Smog & soot come from anything that combusts fossil fuels (coal, gas), like cars and trucks, factories, power plants, incinerators
- Ozone can damage lung tissue & is especially dangerous to people with respiratory illnesses like asthma (which disproportionately affects Black peoples)

7.3% higher all-cause mortality with small increases in particulate matter (10 µg per cubic meter) & ozone (10 ppb)

#3. Nitrogen Dioxide & Sulfur Dioxide

- Produced from cars & factories
 - React with sunlight to produce smog
- Up to 40%** higher exposure to nitrogen dioxide & particulate matter for Black vs. white residents

Photochemical smog is produced when sunlight reacts with nitrogen oxides & volatile organic compounds (VOCs) from gas, paints, & cleaning solvents

People who live in heavily polluted areas are also more likely to die from **COVID-19**



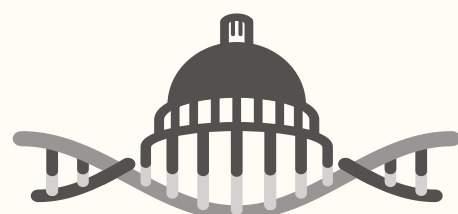
8% increase in COVID-19 mortality with small increases (1 µg/m³) in air pollution

#4. Carbon Monoxide

Produced from cars & trucks and from waste sites

#5. Lead

Primary sources of lead in the air are waste incinerators, lead smelters, & metal processing



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RACISM IS A PUBLIC HEALTH ISSUE: ENVIRONMENTAL RACISM & LAND USES (PT. 8)

Many nonwhite communities lack access to fundamentals like clean air (see pt. 7) & water. This can be due to inadequate infrastructure and a lack of social & political capital.

CLEAN, SAFE WATER requires regular maintenance & management, as well as investment in infrastructure. Nonwhite communities experience inequities across these metrics.

- Black neighborhoods have historically been excluded from municipal services & must more frequently share lower-quality wells at their own expense

- Even when served by community water systems, majority nonwhite communities tend to have worse quality water, such as:

- 50%** more EPA violations than smaller systems in majority white communities
- 260%** higher chance of having ≥ 1 violations of maximum arsenic levels (in San Joaquin Valley, CA)

[Read more: How Racism Ripples Through Rural California's Pipes](#)



GREEN SPACES increase air quality, decrease crime, improve health, & help reduce heat, which especially affects nonwhite areas.

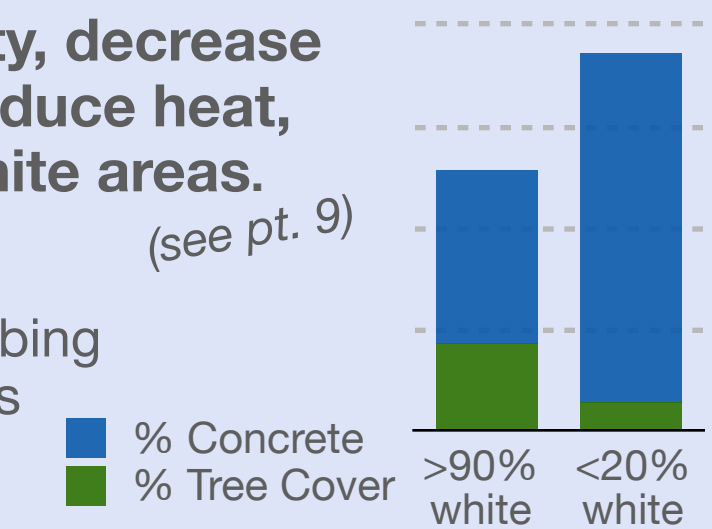
- Majority white LA neighborhoods (< 20% vs. 80% nonwhite) have:

- ~3x** more tree canopy
- ~1/2** heat-absorbing surfaces

- Access to green spaces may have larger health benefits in marginalized communities than in more affluent neighborhoods

[Read more: How Planning & Zoning Contribute to Inequitable Development, Neighborhood Health, & Environmental Injustice](#)

[Read about green spaces & racism in LA](#)



In fact, the percentage of nonwhite residents is associated positively with the percentage of heat-trapping (concrete) surfaces, but negatively with the percentage of tree cover

Myth: Black people end up in areas with hazardous waste & toxic facilities because of economic restraints.

Fact: Data from ~1966-1995 shows that communities of color were targeted for hazardous waste sites (nationally) & toxic facilities (California), not the other way around.

Institutional racism impacts decisions on the location of undesirable land uses & environmental hazards. Nonwhite communities, who typically don't have the political representation or legal resources to oppose these hazardous sites & negligent regulations.

2x more white vs. nonwhite respondents disagreed that nonwhite communities have more hazardous facilities, more industrial pollution, & less political clout to stop hazardous facilities from being built

- Responses of white men who ranked higher on a vulnerability index (i.e., discrimination, health) were similar to nonwhite responses

Nearly 1 in 7 Black Americans live by current & developing OIL REFINERIES.

In LA County: **42%** more likely for Black vs. white residents to live near oil & gas wells

Up to 99.7% of residents in oil-producing neighborhoods are nonwhite

OIL REFINERIES are also more active in majority nonwhite communities:

Oil sites in South LA & Wilmington (**90% nonwhite**) vs. West LA & Wilshire (**69% white**):

↓ regulations ↑ health consequences

[Read more](#)

HAZARDOUS WASTE FACILITIES (like superfund sites) have higher levels of nonwhite residents & higher cancer rates.

In 1990, nonwhite Americans made up 1/4 of the population, but **>40%** of those living within 1 mile of hazardous waste sites

60% more Black inhabitants in neighborhoods with hazardous waste facilities in 2000 (**70%** nationally)

Gerrymandering marginalizes Black communities & affects proximity to Superfund sites:

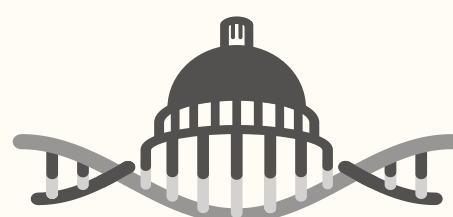
- Districts that are more gerrymandered have less Black residents, are further from hazardous waste sites, & have less exposure to pollution

TOXIC/HIGH-RISK CHEMICAL FACILITIES & their neighboring "Fence-line" communities have higher exposure to toxins and the constant threat of chemical releases & explosions.

75% more Black inhabitants within 3 miles of a facility than in the U.S. as a whole

10-44% higher risk of cancer or respiratory hazard (in 8 of 9 counties studied in 2011)

[Read about historical & current racism in LA's highways that enforce racial boundaries](#)



RACISM IS A PUBLIC HEALTH ISSUE: CLIMATE CHANGE, EXTREME WEATHER, & NATURAL DISASTERS (PT. 9)

Cities with a higher percentage of Black inhabitants have a **higher vulnerability to natural disasters**

(according to the CDC's Social Vulnerability Index)

- Minorities in LA are classified as having the highest vulnerability

50%

higher vulnerability to wildfires in majority Black communities

6 states

with the highest percentage of Black Americans are also along the gulf & Atlantic coasts & among the most at risk from hurricanes (All expected to increase in coming years)

Black residents suffer most from flooding. Compared to white residents of New Orleans during Hurricane Katrina, they were:

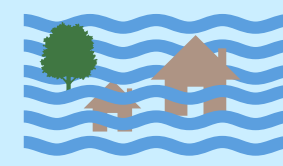
~2x

as likely to die

~2x

as likely to go a day without food or water

Read more: [Katrina Hurt Blacks and Poor Victims Most](#)



Neighborhoods with the highest death counts & flooding (≥ 5 ft) were the **most segregated** (ave. 80% Black), but not the poorest

Read more: [Flooding Disproportionately Harms Black Neighborhoods](#)

Black Americans are more likely to live in areas that experience extreme heat & face 2.5x the rate of heat mortality than their white counterparts.



Compared to white Americans,

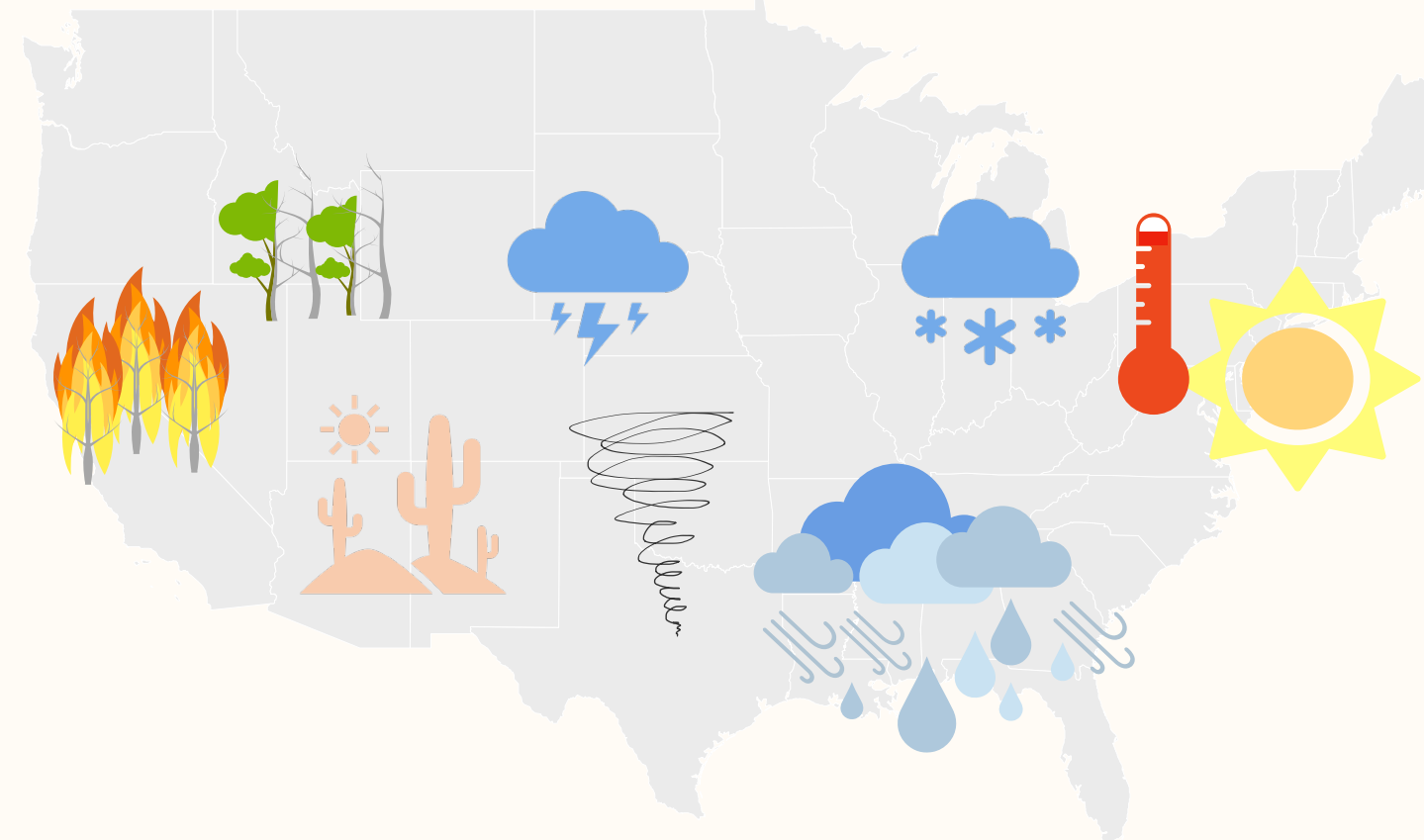
~2x

as likely to die from California heat waves (1999-2003)

~2x

mortality for every 10°F increase in ave temp

Due to centuries of discriminatory policies & structural marginalization, Black Americans are more likely to live in places most vulnerable to climate change & extreme weather. These same forces have led to the exclusion of nonwhite families from factors that lead to resilience in the face of disasters, like wealth, insurance, employment, and political & social capital.



Extreme weather has severe effects on mental health...

- Mandated evacuees of the 2003 California wildfires had symptoms of:

24% PTSD

33% depression

- Similar findings have been found after flooding & Hurricane Katrina

- Effects are worse for those without health care access:

- Ex: after Hurricane Sandy, uninsured victims were more likely to show symptoms of:

2.7x PTSD

1.9x depression

1.6x anxiety



...and also physical health.

- The increase of cardiovascular disease after Hurricane Katrina was worse for Black vs. white victims

- Severe reproductive harms from hurricanes & natural disasters

- For women after Hurricane Katrina:

3x

low birth weight

>2x

preterm birth



Climate change intensifies pollution & Black Americans are already more likely to live in areas with worse pollution.

- Air pollution + high heat exacerbates smog (i.e., ground-level ozone, see pt. 8) & heat-related deaths

↑1°C

↑~1000

~300

air-pollution-related deaths of which are in California



Nonwhite Americans are largely excluded from local & national disaster planning, have limited ability to advocate for resources (i.e., prevention & recovery), and a majority of donor money goes to white-led environmental groups.

Districts that were subjected to past racist redlining practices, which are currently home to >43% Black vs. 20% white residents, face a disproportionate risk of problems related to heat & air pollution.

For instance, historically redlined districts are:

- more likely to have urban heat islands
- up to 20°F warmer than non-redlined districts in the summer
- have 2.4x higher rate of asthma ER visits in formerly redlined vs. non-redlined districts

Urban heat island: city areas that reach much warmer temperatures due to heat-trapping surfaces & lack of tree cover (see pt. 8)

Read about rising heat, lack of tree cover, & historic racist practices

Redlining: Segregation efforts initiated policies in the 1930s that deny mortgages, loans, & government services to marginalize Black neighborhoods

Black Americans also face an unequal number of cold-related deaths.

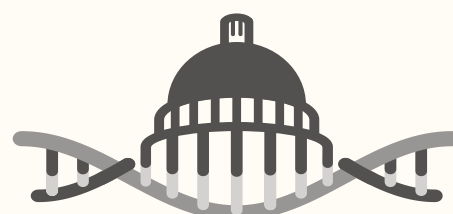
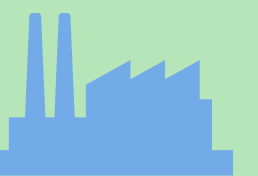


5.8 per million

cold-related deaths for Black persons compared with 4.1/ million for white persons

During disasters, dangerous chemicals & toxins can be released from industrial facilities, which are more common in nonwhite communities, into surrounding communities & water systems.

- Managing contamination is physically, financially, & administratively challenging
- Especially in neighborhoods that are devastated and already lacked resources & political capital



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RACISM IS A PUBLIC HEALTH ISSUE: CLIMATE CHANGE, INFRASTRUCTURE, & CURRENT ISSUES (PT. 10)


Black Americans are less responsible for, but more concerned about, climate change:

~9% of CO₂ emissions (fuel for household function & consumer goods production) attributed to Black Americans vs. 76% for white Americans

2.3x as likely for white vs. Black Americans to be “doubtful or dismissive” of climate change

A study of 2,300 participants found that people were willing to donate more relief money if they were shown a white victim of Hurricane Katrina instead of Black


Changes in weather patterns & decreases in biodiversity caused by climate change also affect the emergence & spread of infectious diseases.

- Infectious diseases (like COVID-19) have outsized effects on nonwhite Americans
- They can also increase prejudice
 [Read more: To Prevent Pandemics, Stop Disrespecting Nature](#)

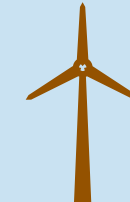
The rise in prices of basic necessities (e.g., energy & water) caused by climate change (e.g., hurricane/flood damages) will disadvantage those who are already paying a higher percentage of their income to such necessities.

35% of Black families reported facing energy insecurity vs. 14% of white

3x higher for low- than high-income households (7.2% vs. 2.3% energy burden)
2x higher for low- than median-income households (7.2% vs. 3.5%)

 Water bills in California increased 2-3x quicker than inflation during droughts in 2000-2010

Children with even slight energy insecurity (cooking, heating, cooling) experience: **80%** more food insecurity, **30%** poorer health, **20%** hospitalization since birth

 The initial investments in sustainable energy alternatives (i.e., wind, solar) are largely inaccessible to nonwhite communities & may exacerbate existing generational wealth gaps

Read more: [Understanding 'Energy Insecurity' and Why it Matters to Health](#)

>1/6 of emergency forces fighting wildfires in 2018 in California were incarcerated & the majority were Black



>4x overrepresentation of the Black population in CA prisons & jails


(Juvenile inmates are allowed to fight fires while incarcerated)

Prisoners have to work:

24 hr shifts during active fires

\$2-\$5/ day

and

0 benefits i.e., pension, workers' compensation 

8x more likely for an inmate to be injured after inhaling smoke & particulates vs. other firefighters (i.e. Valley Fever)

~\$100 million saved annually by the state from incarcerated firefighting labor



Despite this dedication, training, & experience, it is practically impossible for an inmate firefighter to receive the emergency medical technician license necessary to become hired as a firefighter post-incarceration

Irrigation exacerbates drought conditions, water shortages, & pollution runoff (i.e., nitrous & phosphorus) that disproportionately affect communities of color.

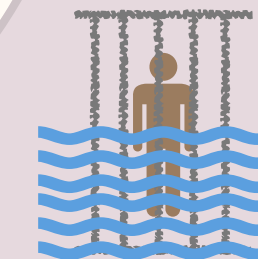
- Farming subsidization (including the current administration's trade war) disincentivizes switching to region-appropriate crops or adopting innovative farming practices to reduce water use & pollution from fertilizer run-off.

- For instance: **4x** more water is needed to grow cotton, California's most heavily subsidy-supported crop, in an arid state like California vs. less dry states

- Government aid to farmers has excluded Black people since its conception

Listen to "The Land of Our Fathers" from the [1619 Project](#)

Read more: [Subsidizing Waste - How Inefficient US Farm Policy Costs Taxpayers, Businesses, and Farmers Billions](#)



Since most prisons are not prepared for natural disasters & extreme weather events, those incarcerated suffer dire consequences.

<8,000 inmates were incarcerated at Orleans Parish Prison during Hurricane Katrina, and...

...~90% were Black

- There were no evacuation plans or training plans for the guards in the event of emergencies or disasters

- Inmates were exposed to high levels of toxic water & food shortage, and:

>1,000 prisoners were abandoned for several days during a state-wide mandatory evacuation order, and...

...517 were unaccounted for during the aftermath of the storm (& may still be)

Read more: [New Orleans: Prisoners Abandoned to Floodwaters](#)

