

October 26-28, 2020

# Maternal & Infant Health in the Digital World:

*Patient-Centered Care During COVID and Beyond*

**VIRTUAL CONFERENCE**

[hmhbga.org/event/beyondcovid2020](https://hmhbga.org/event/beyondcovid2020)

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# A health equity approach to addressing maternal morbidity & mortality:

Where is inequity and what can we do to improve maternal health?



EMORY

ROLLINS  
SCHOOL OF  
PUBLIC  
HEALTH

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2020 Conference: Maternal & Infant Health in the Digital World

# America stands alone: Maternal mortality



The New York Times

## *Maternal Mortality Rate in U.S. Rises, Defying Global Trend, Study Finds*

By Sabrina Tavernise

Sept. 21, 2016

WASHINGTON — One of the biggest worldwide public health triumphs in recent years has been maternal mortality. Global death rates fell by more than a third from 2000 to 2015. The United States, however, is one of the

U.S. Has The Worst Rate Of Maternal Deaths In The Developed World

May 12, 2017 - 10:28 AM ET

NINA MARTIN, PROPUBLICA



RENEE MONTAGNE

**Rank 34 out of 35  
high-income countries**

Source: Lancet Global Burden of Disease, 2017

# America stands alone: Infant mortality

## The New York Times

**TheUpshot**



THE NEW HEALTH CARE

### *The U.S. Is Failing in Infant Mortality, Starting at One Month Old*

By Aaron E. Carroll

June 6, 2016

Many more babies die in the United States than you might think. In 2014, more than [23,000 infants died](#) in their first year of life, or about six for every 1,000 born. According to the Centers for Disease Control and

Los Angeles Times

TOPICS SEARCH

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mia is now the world's largest economy, surpassing Kingdom

An L.A. triple-murder suspect was tried in China, and his case could open the door for similar...

Electronics-recycling innovator is going to prison for trying to extend computers' lives

SCIENCE NOW SCIENCE LA TIMES

### Why the United States is 'the most dangerous of wealthy nations for a child to be born into'

By KAREN KAPLAN JAN 08, 2018 1:50 PM

**Rank 33 out of 35  
high-income countries**

Source: America's Health Rankings 2017 Report

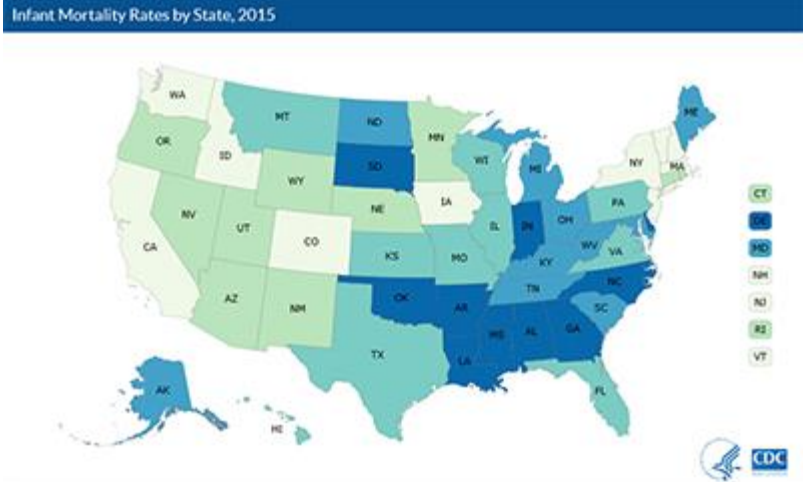
# America stands alone: Preterm birth



**Rank 34 out of 34  
high-income countries**

Source: Delnord, et al, 2017; Euro J Public Health

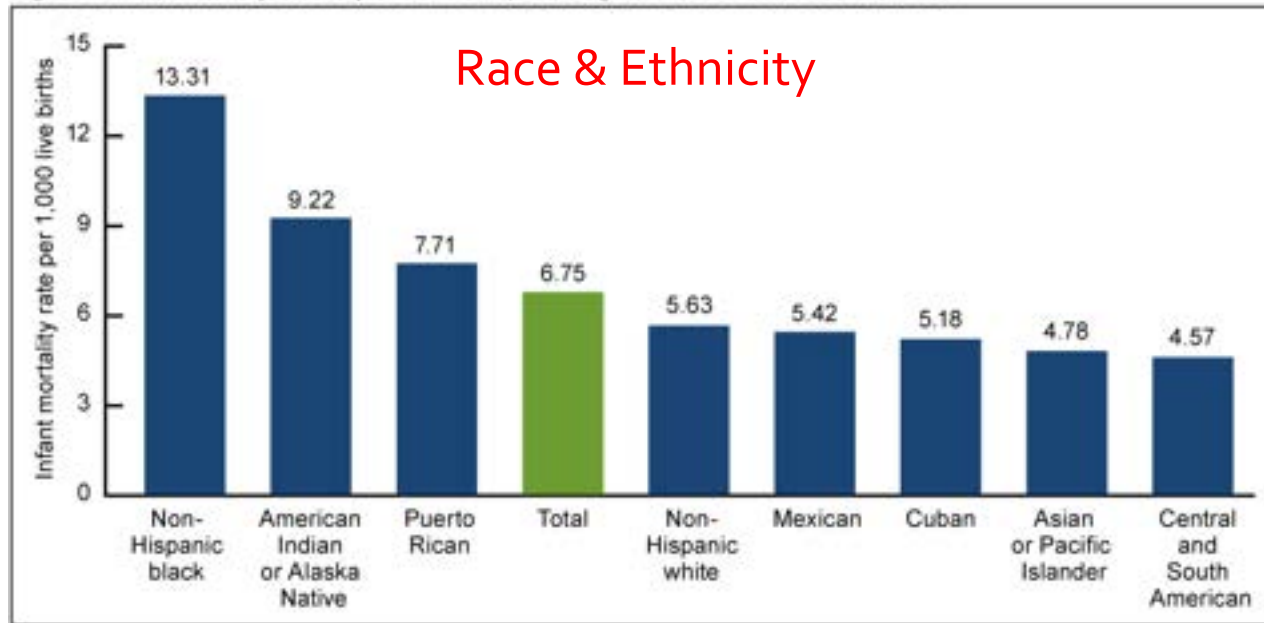
# Geography



Death Rates\*

United States 5.9

Figure 1. Infant mortality rates, by race and Hispanic origin of mother: United States, 2007



# Race & Ethnicity

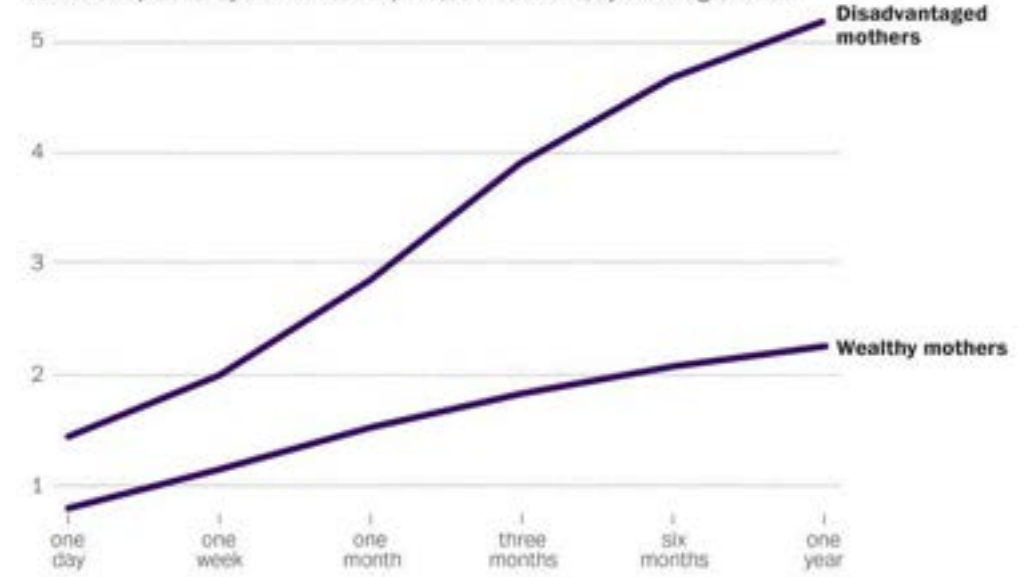
SOURCE: CDC/NCHS, linked birth/infant death data set, 2007.

# Dimensions of Equity

## Socioeconomic Status

### A growing income gap in infant mortality

Cumulative probability of infant death per 1,000 live births, by infant age, in U.S.



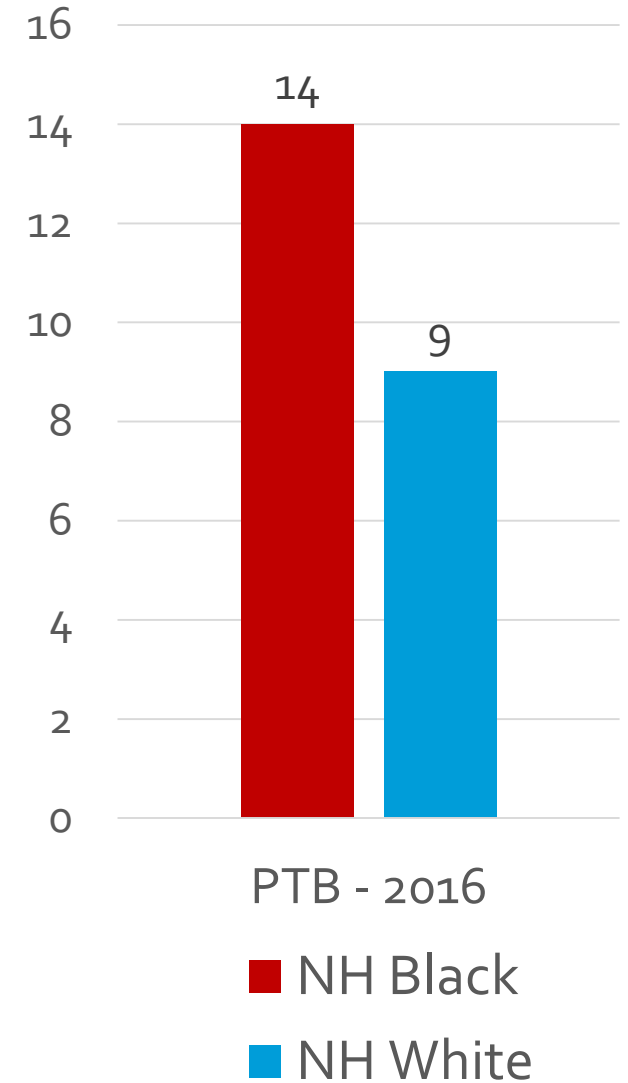
WASHINGTONPOST.COM/WONKBLOG

Source: Alice Chen, Emily Oster and Heidi Williams

Race  
Black:White

1.6

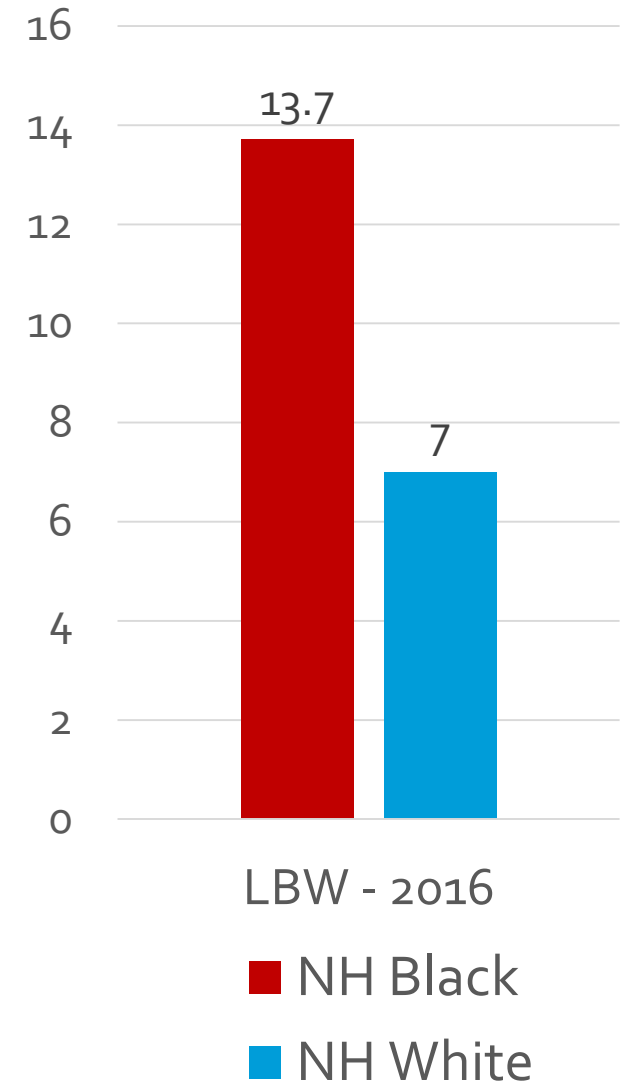
Preterm  
Birth



Race  
Black:White

2.0

Low  
birthweight

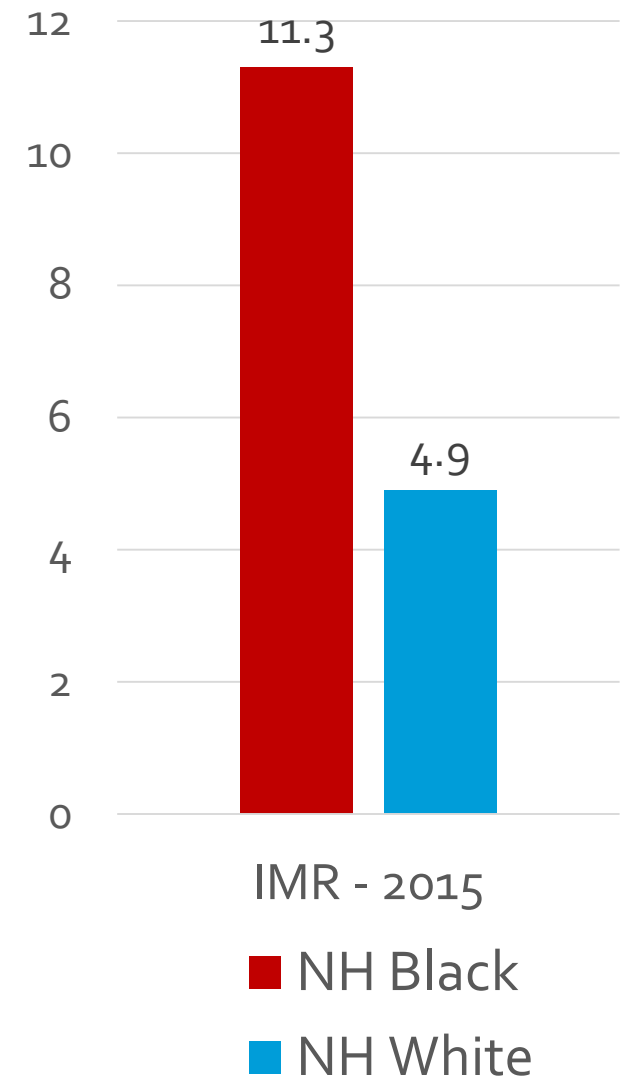




Race  
Black:White

2.3

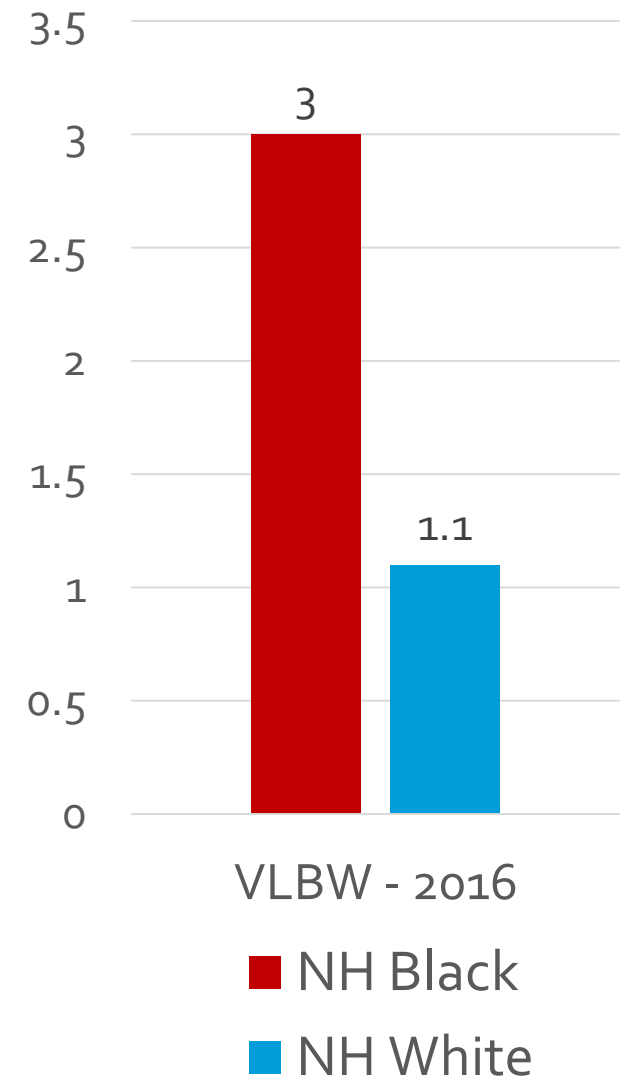
Infant  
mortality



Race  
Black:White

2.8

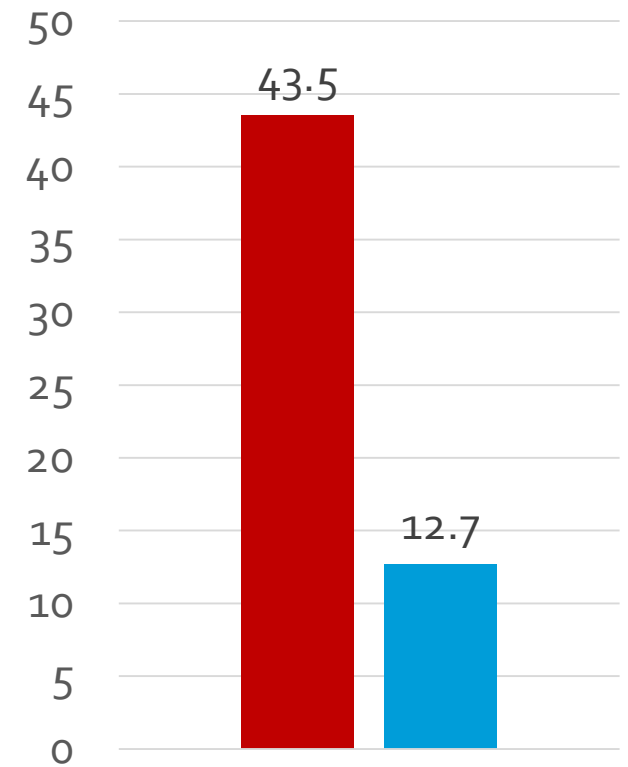
Very  
Low birth  
weight



Race  
Black:White

3.4

Maternal  
Mortality



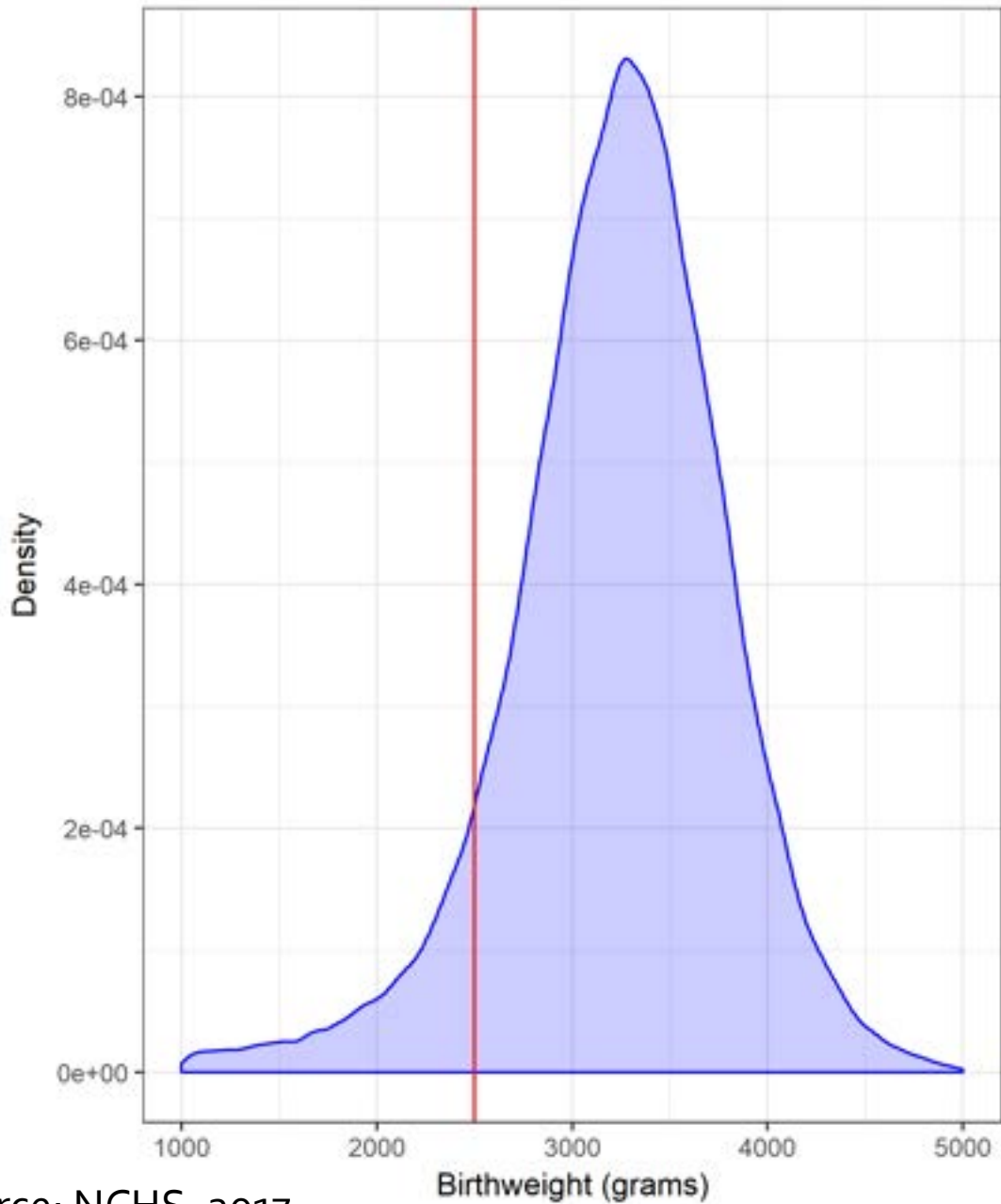
Maternal Mortality -  
2013

■ NH Black  
■ NH White

# APPROACHING EQUITY 1:

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Individual differences do not explain group disparities

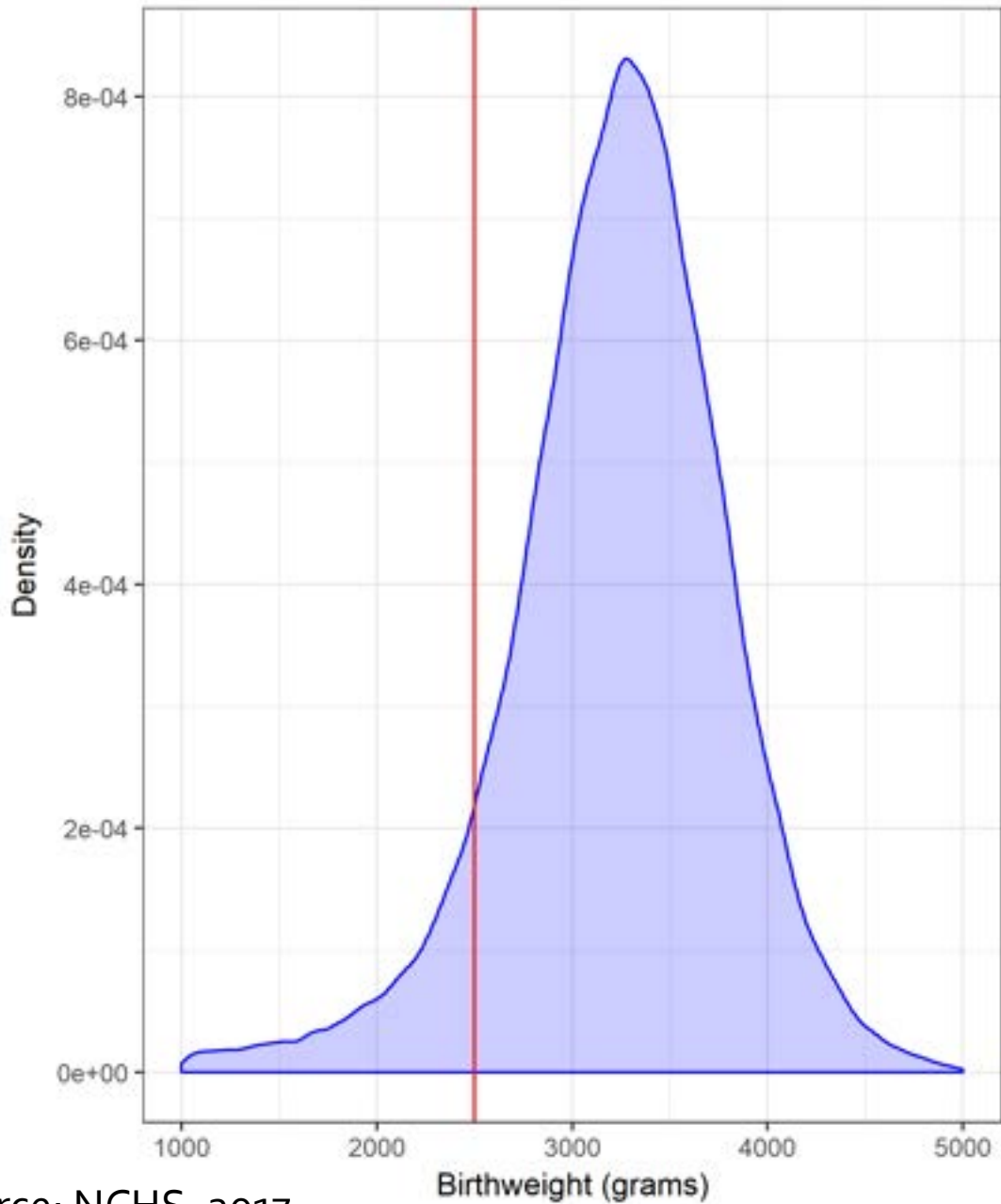


What differs between individual babies?

Causes of Cases  
Why was this baby low birthweight?

Source: NCHS, 2017

Rose, 2001

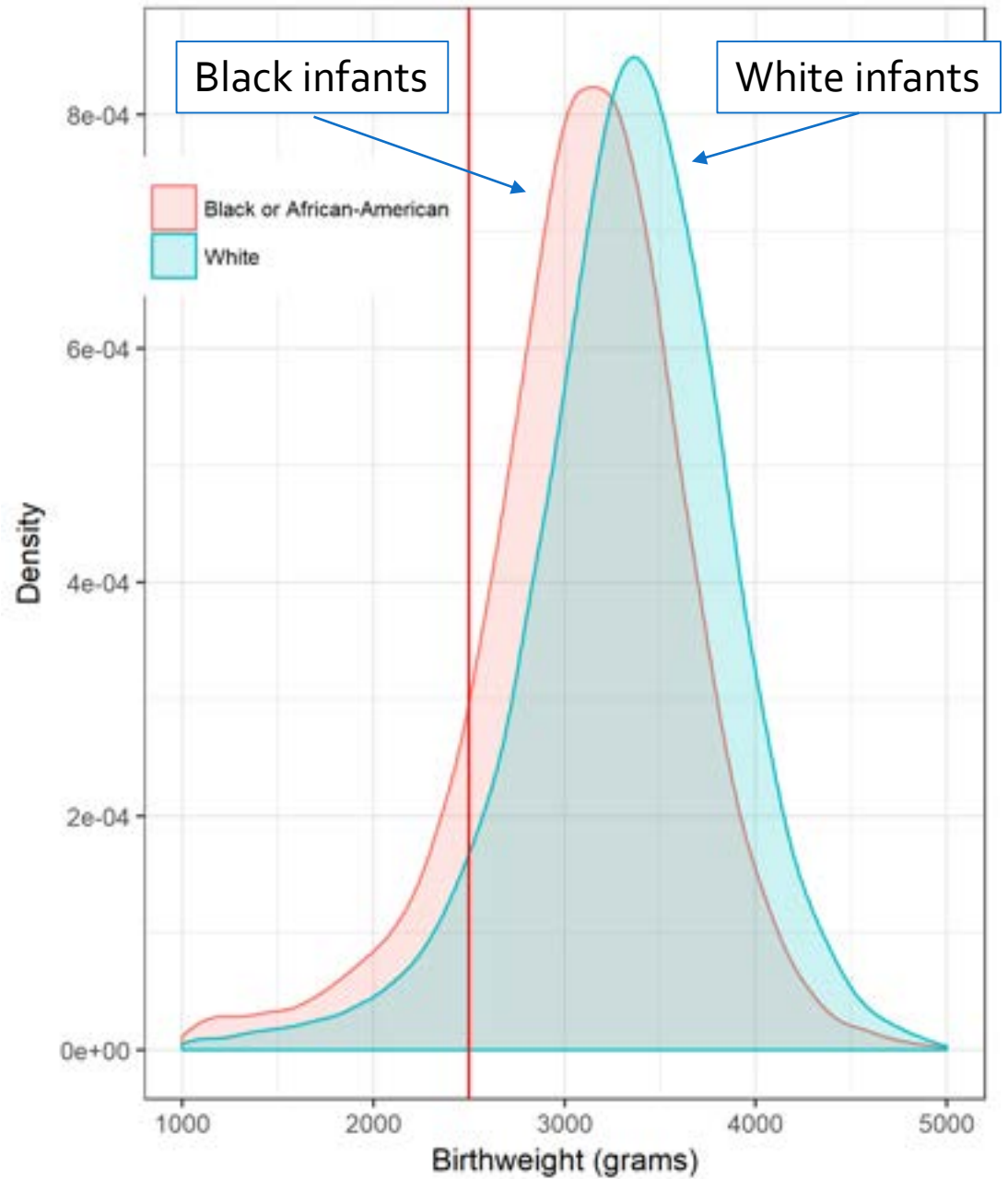
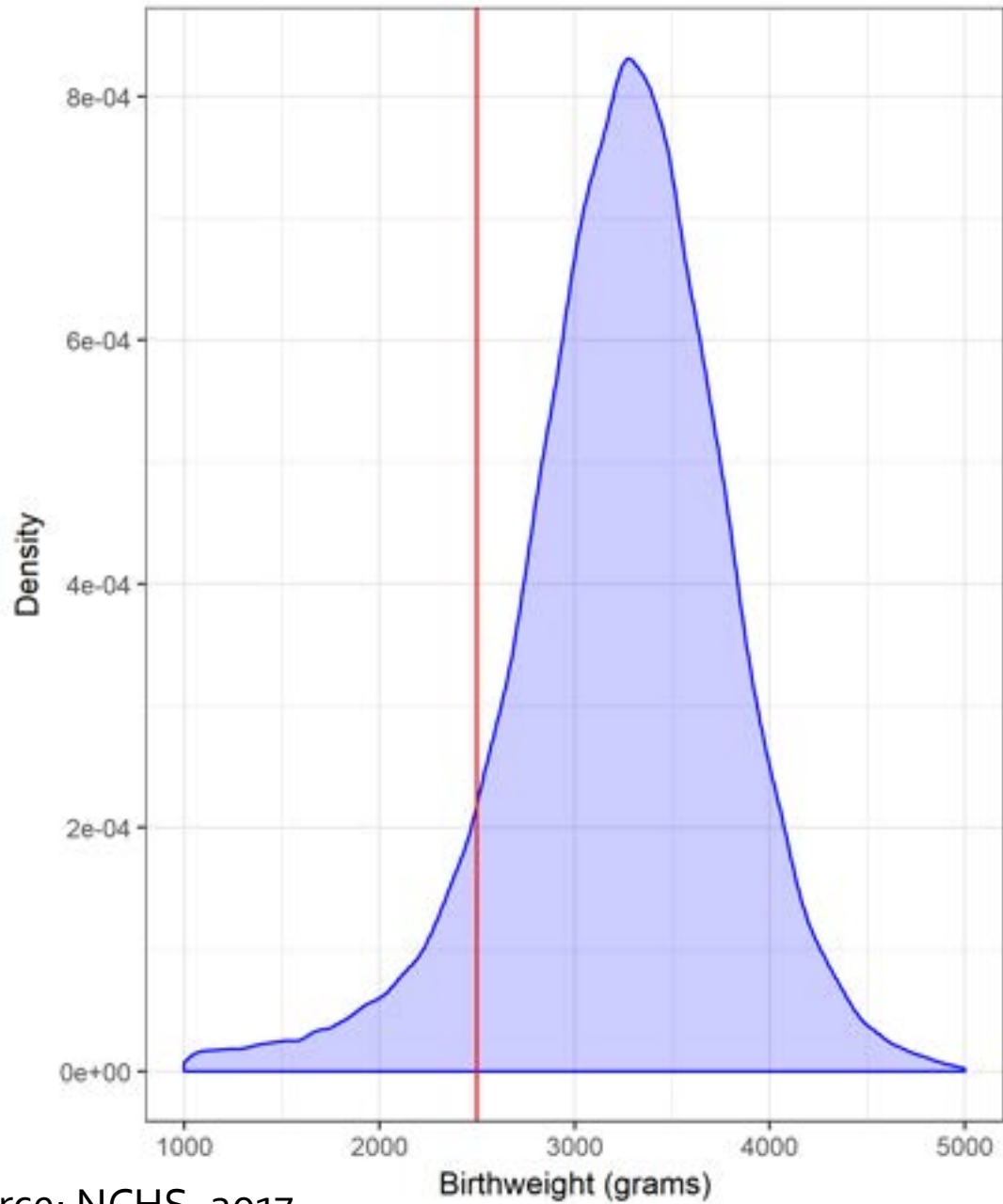


What differs between individual babies?

- Infection
- Stress
- Smoking
- Genetics
- Race?
- ...

Causes of Cases

Why was this baby low birthweight?

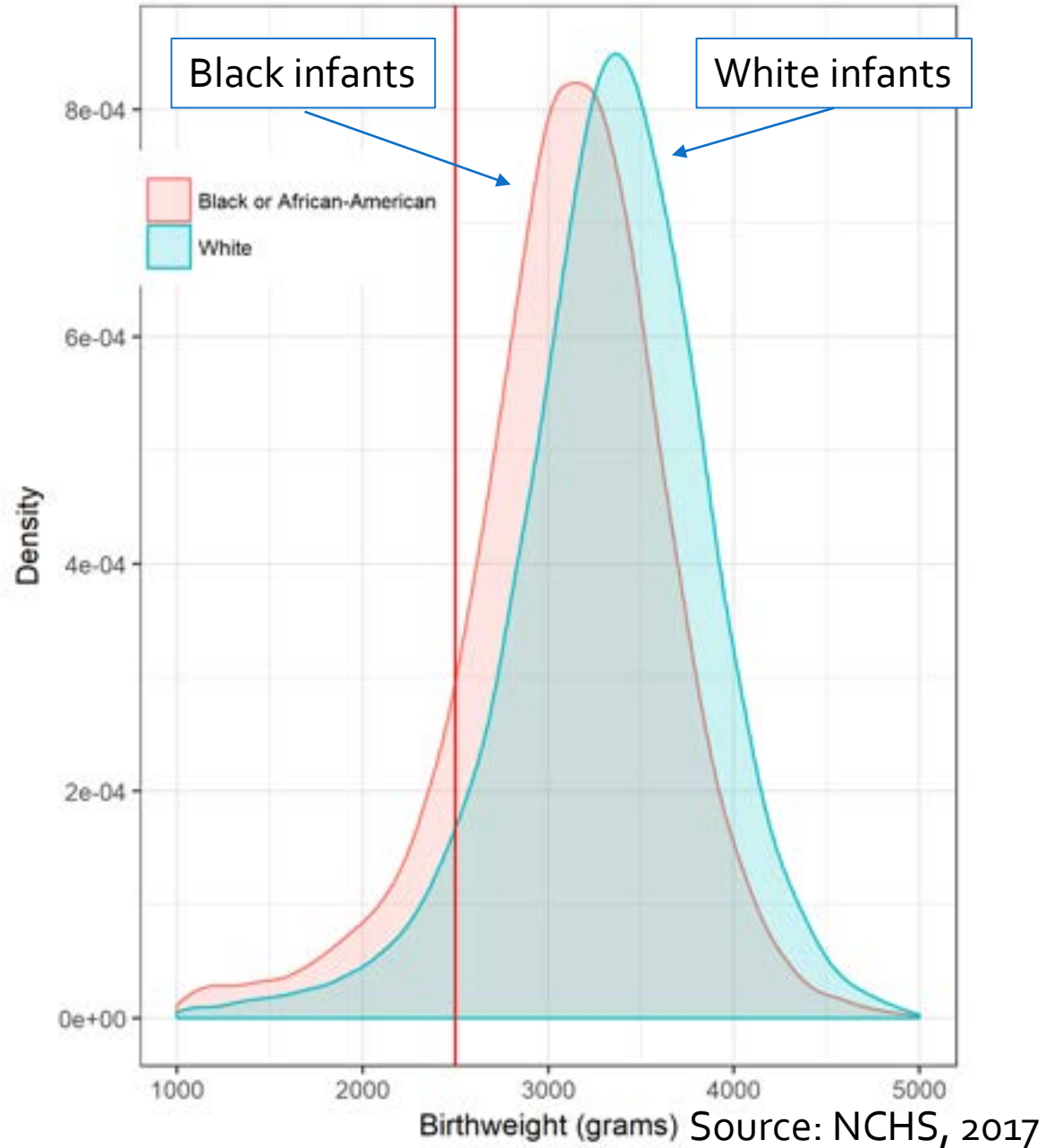


Source: NCHS, 2017

Rose, 2001

What differs between populations?

Causes of Incidence  
*Why is the average birthweight lower for Black compared to White babies?*

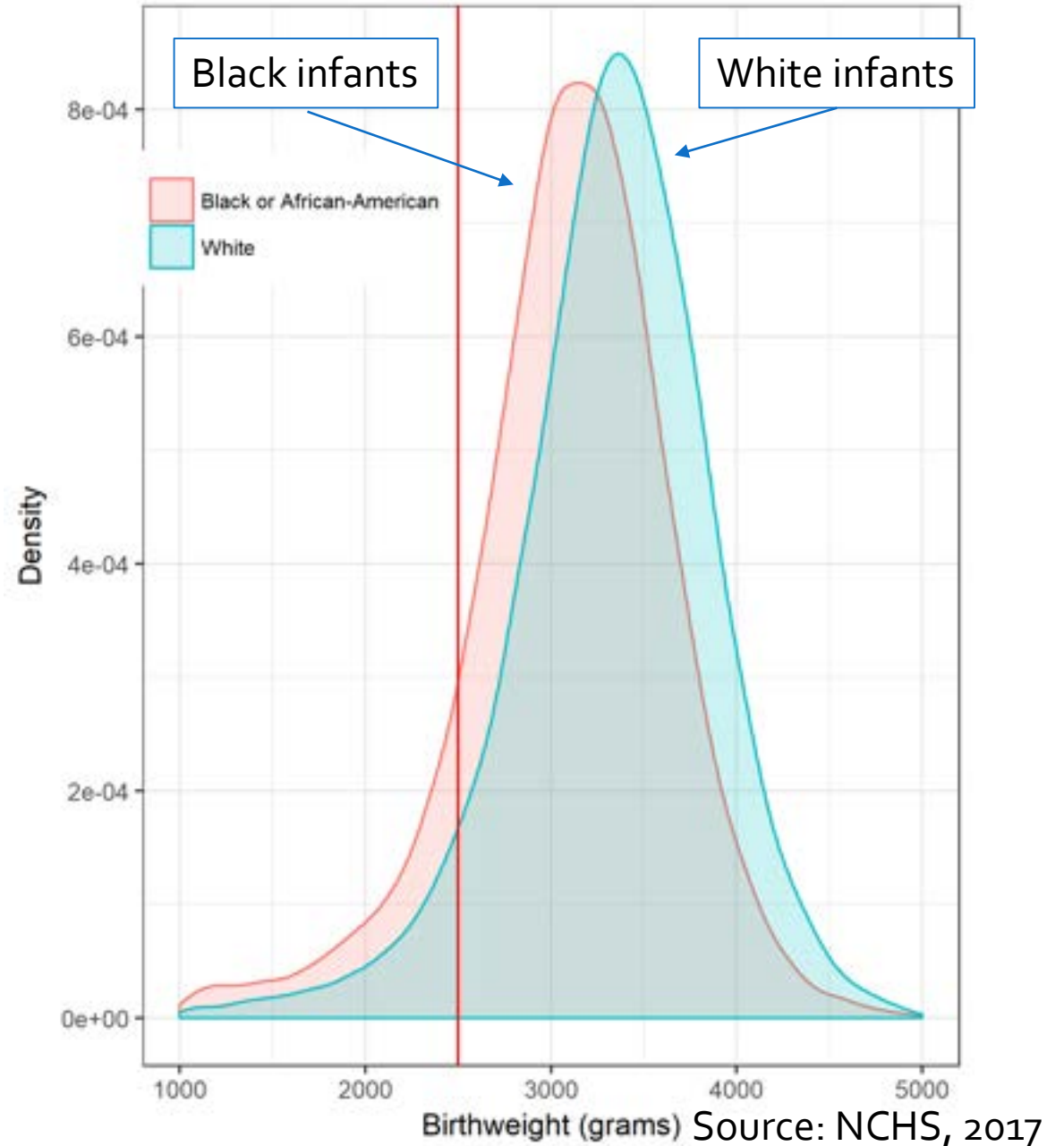


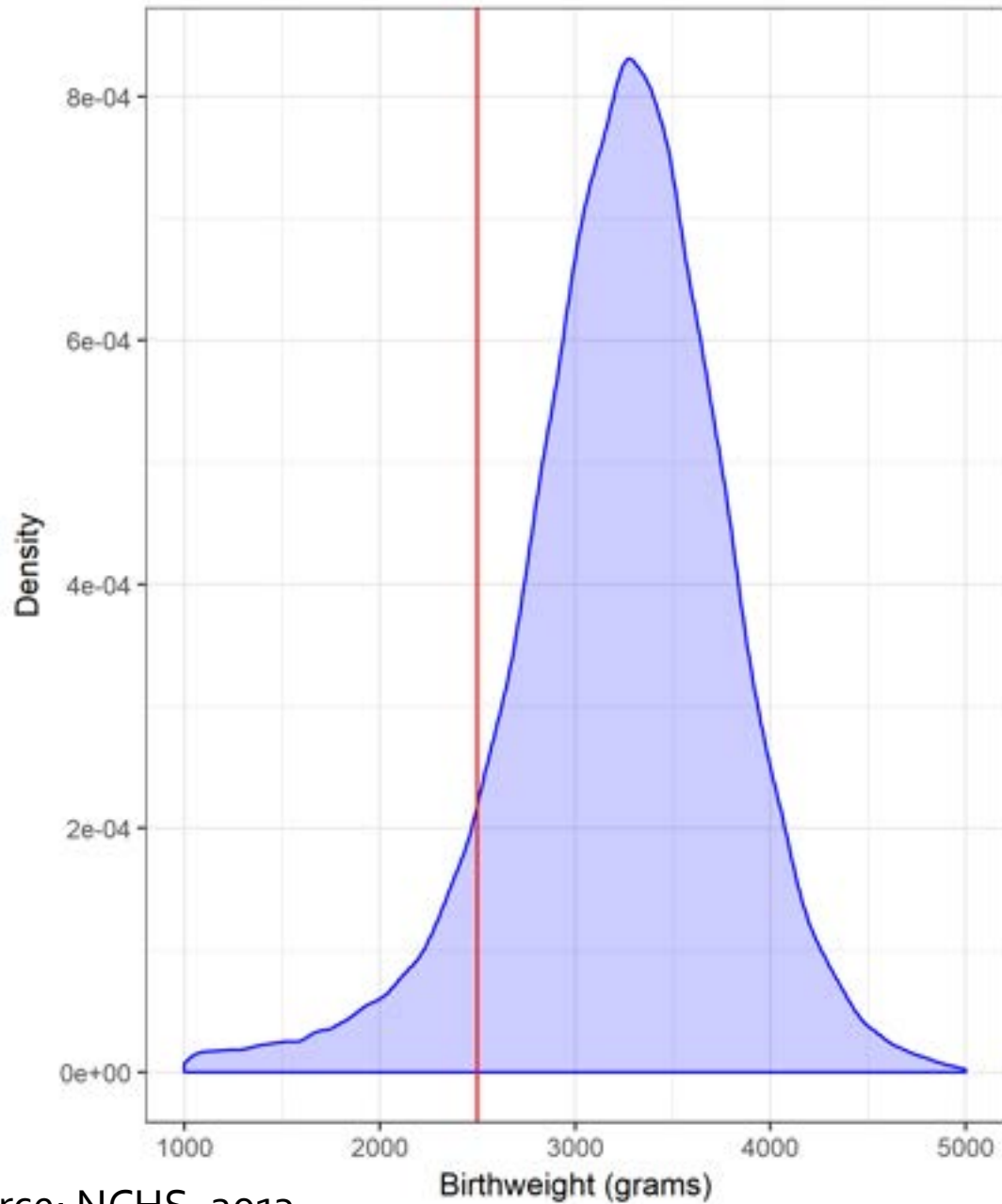


## What differs between populations?

- ~~Race?~~ Racism
- Stigma & Discrimination
- Segregation
- Opportunity structures
- Health access & health care

Causes of Incidence  
*Why is the average birthweight lower for Black compared to White babies?*





Source: NCHS, 2013

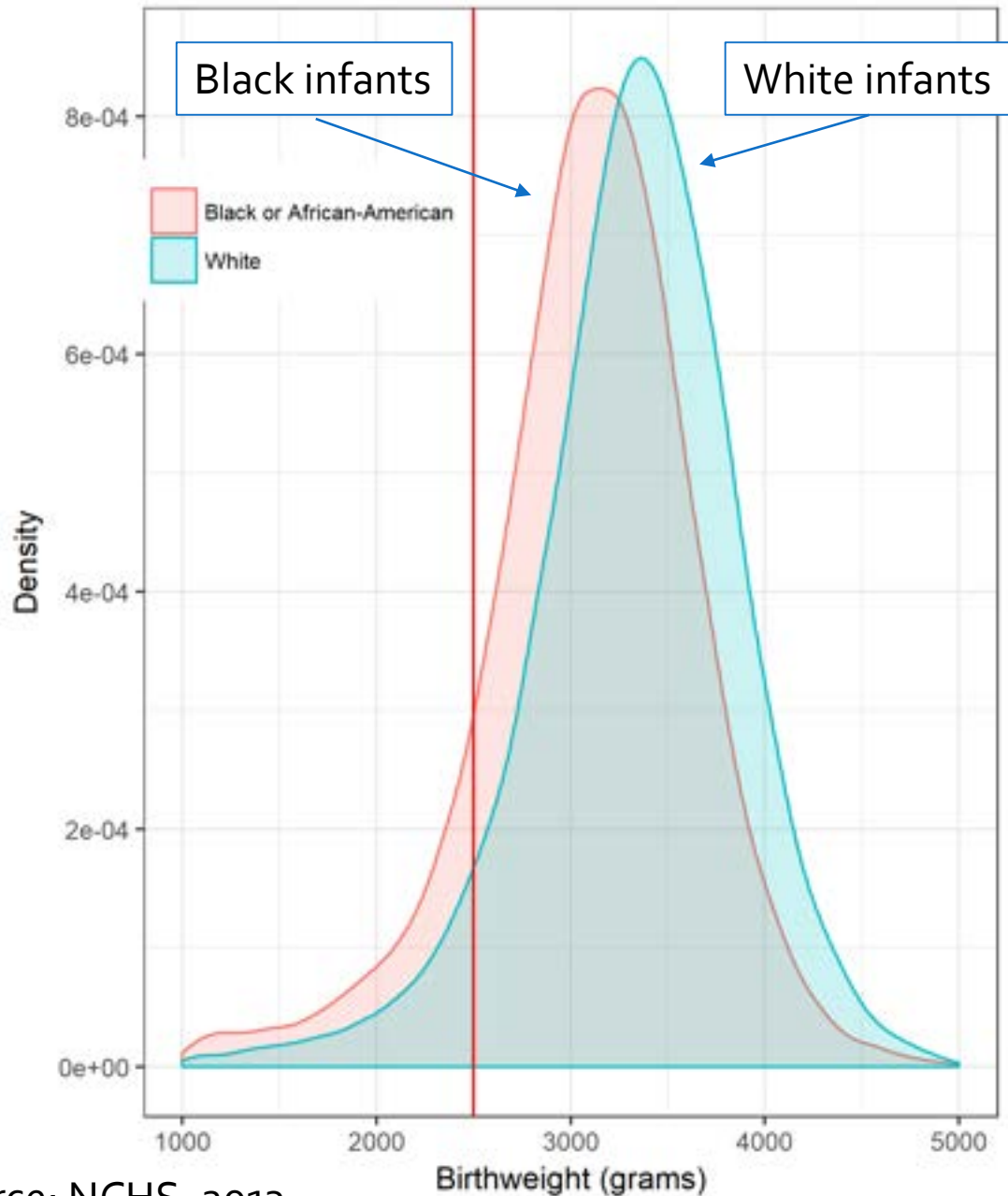
Are individuals accountable for their health outcomes?

Health behaviors and conditions matter for individual outcomes

BUT...

Individual factors do not explain between-race differences in...

- Maternal mortality
- Infant mortality
- Preterm birth



Source: NCHS, 2013

Is 'health care' accountable for health inequity?

Racial inequities in 'health care':

- Insurance
- Access to providers
- Timing, quality, quantity of care

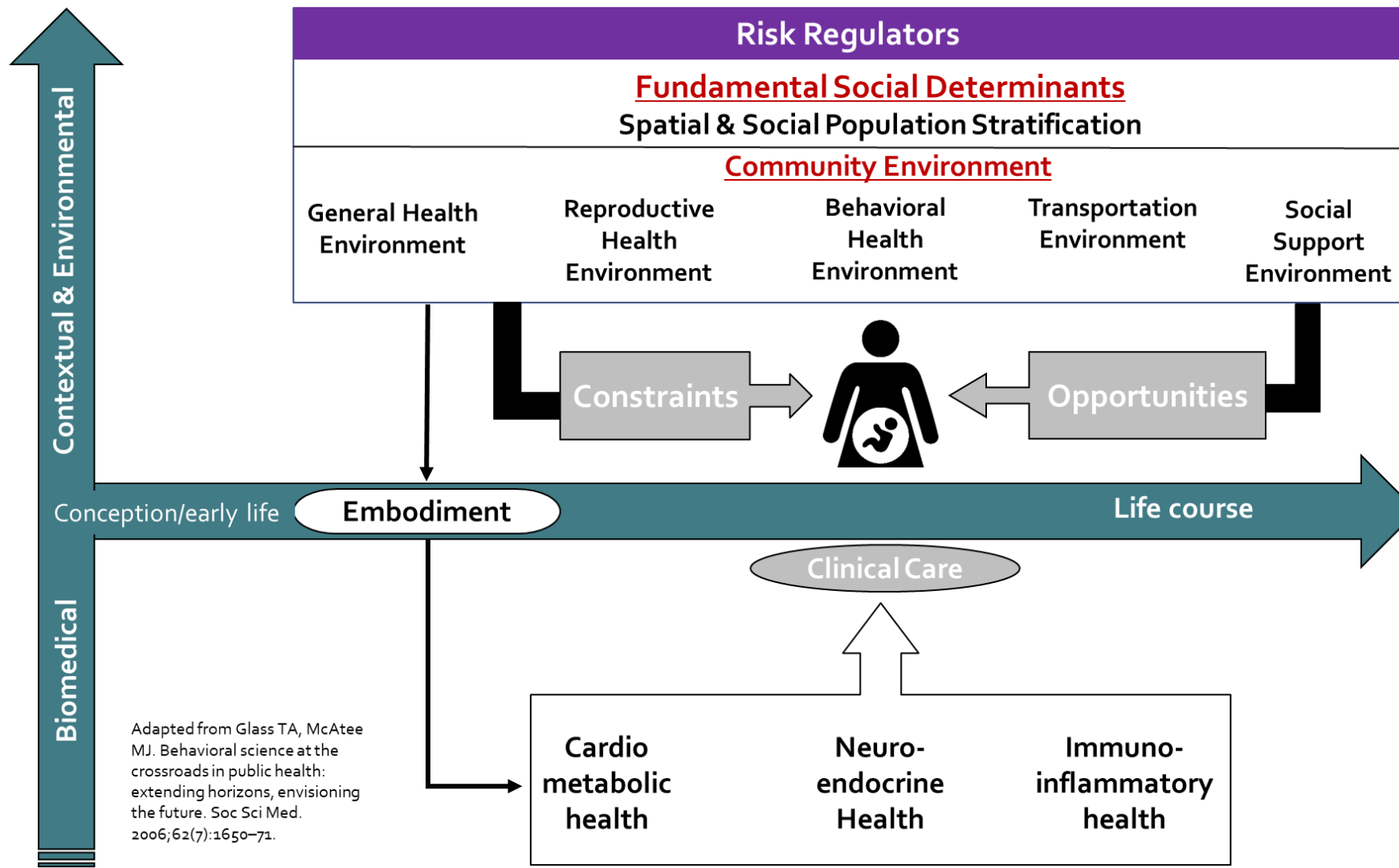
BUT...

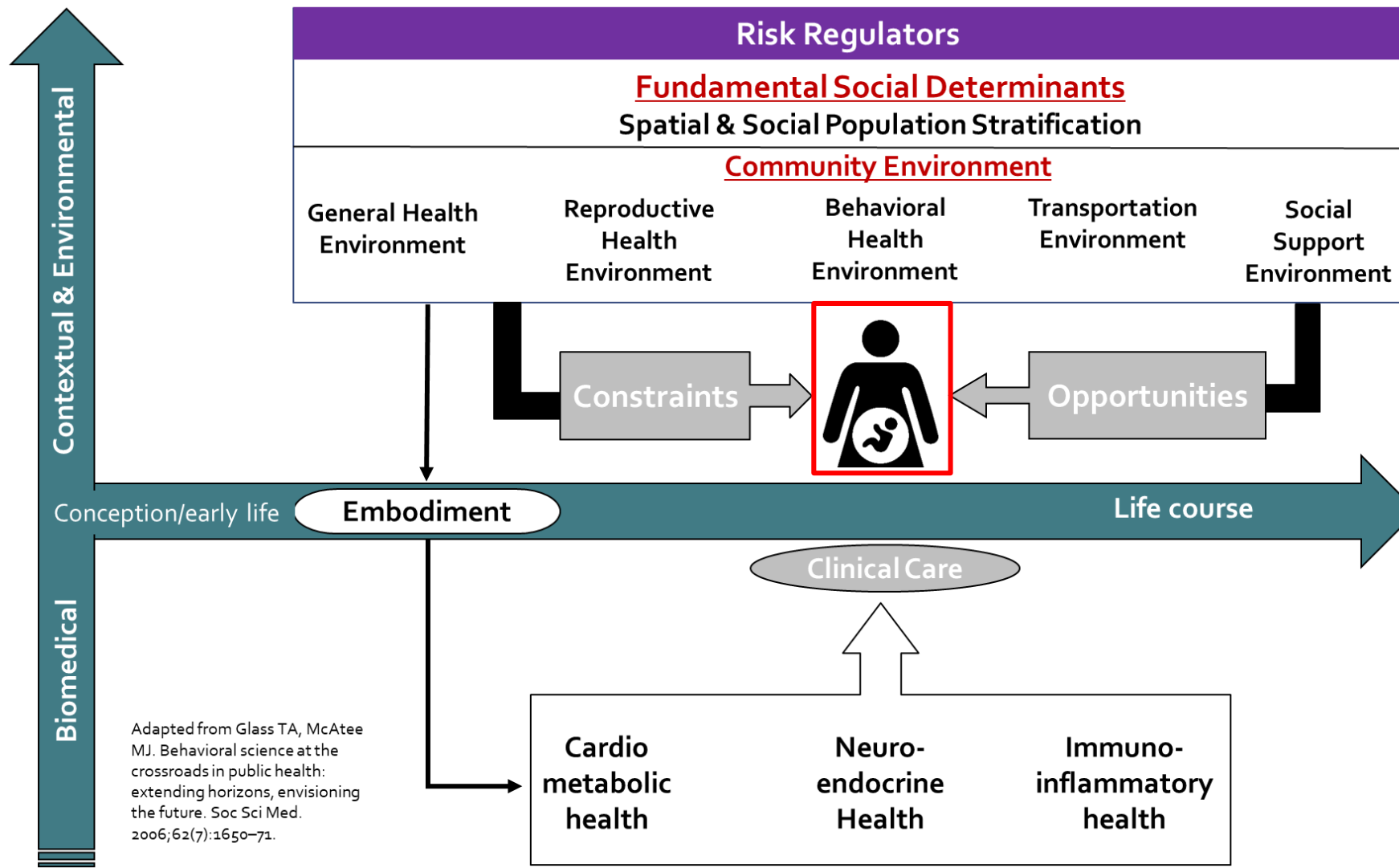
Between-race differences persist among women with private insurance

# APPROACHING EQUITY 2:

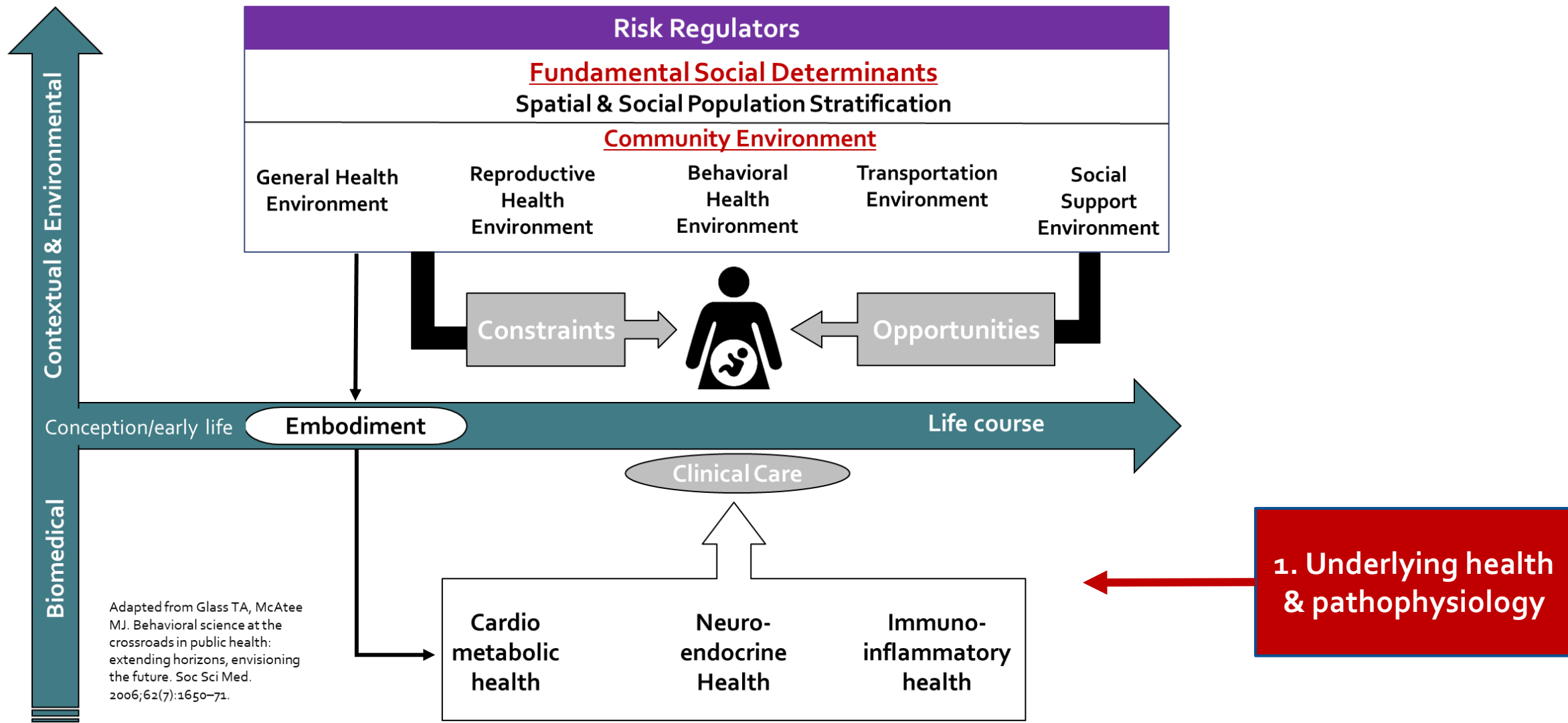
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Health is caused at multiple levels

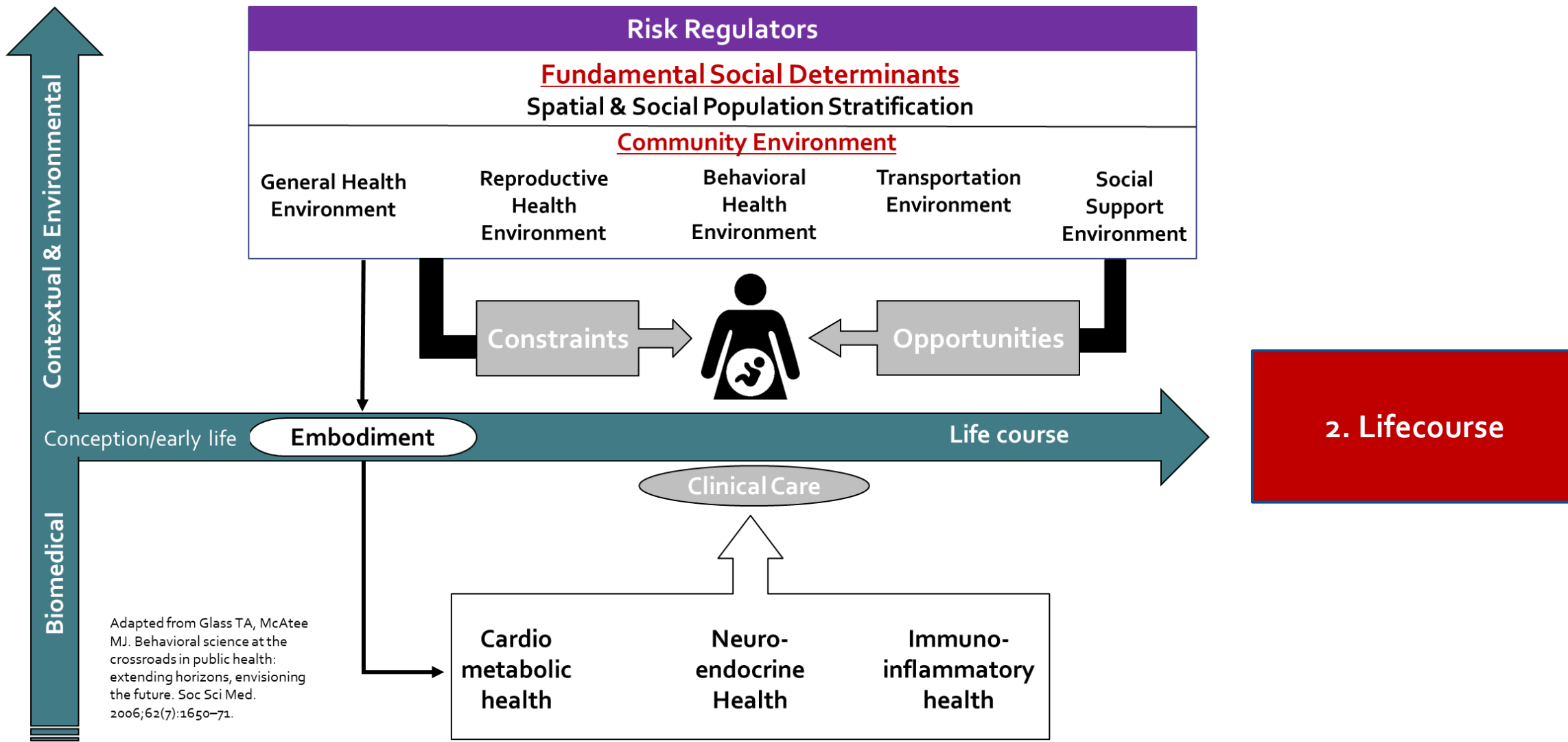




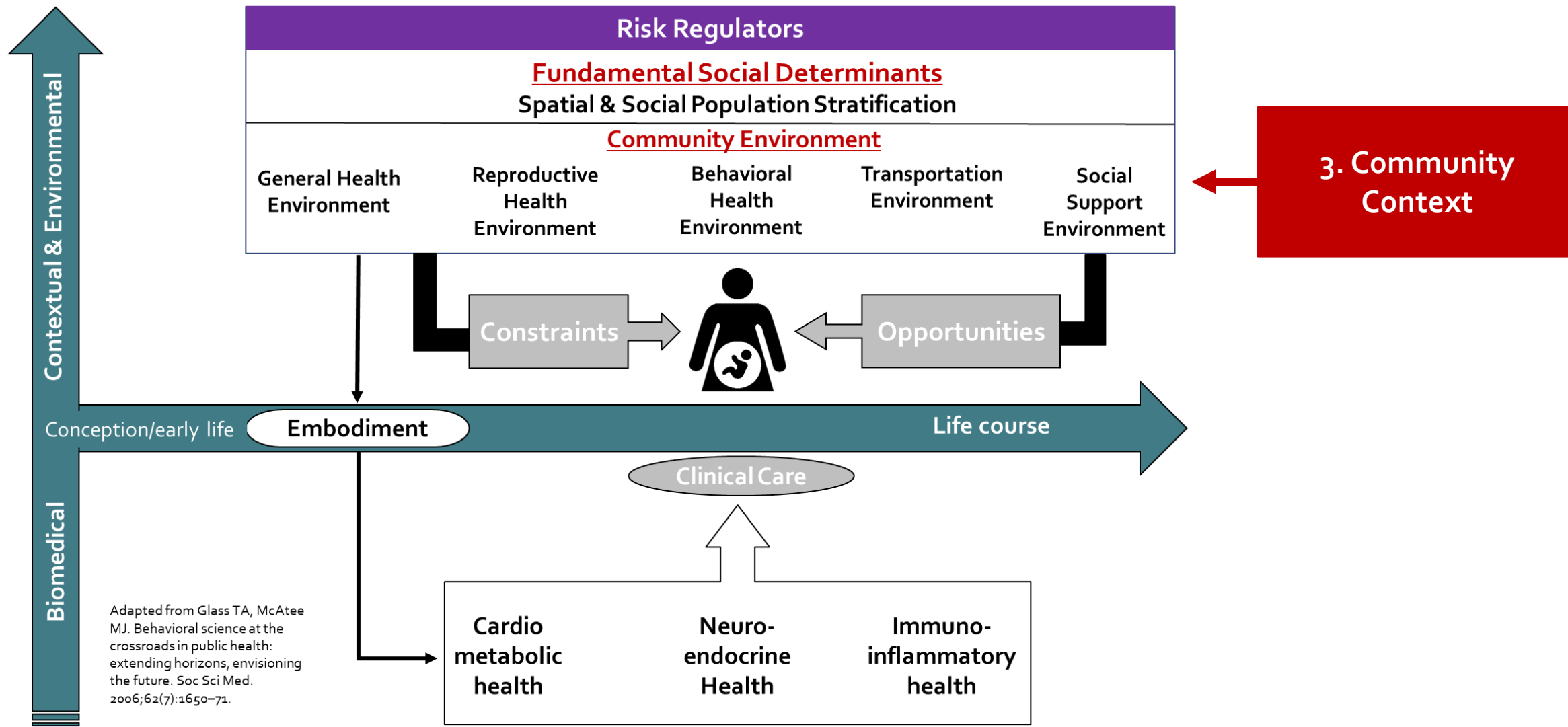
Adapted from Glass TA, McAtee MJ. Behavioral science at the crossroads in public health: extending horizons, envisioning the future. *Soc Sci Med.* 2006;62(7):1650-71.

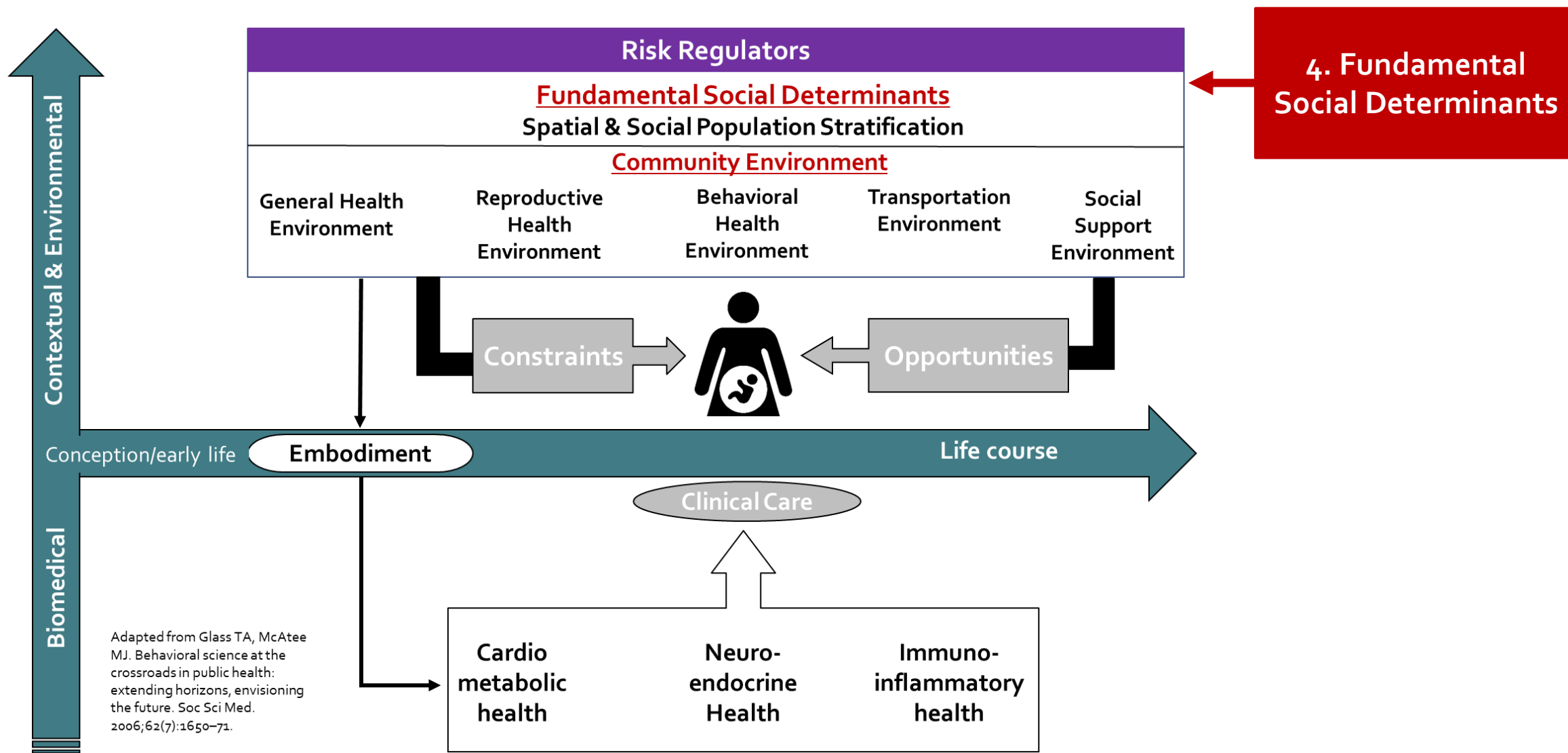


Adapted from Glass TA, McAtee MJ. Behavioral science at the crossroads in public health: extending horizons, envisioning the future. Soc Sci Med. 2006;62(7):1650-71.









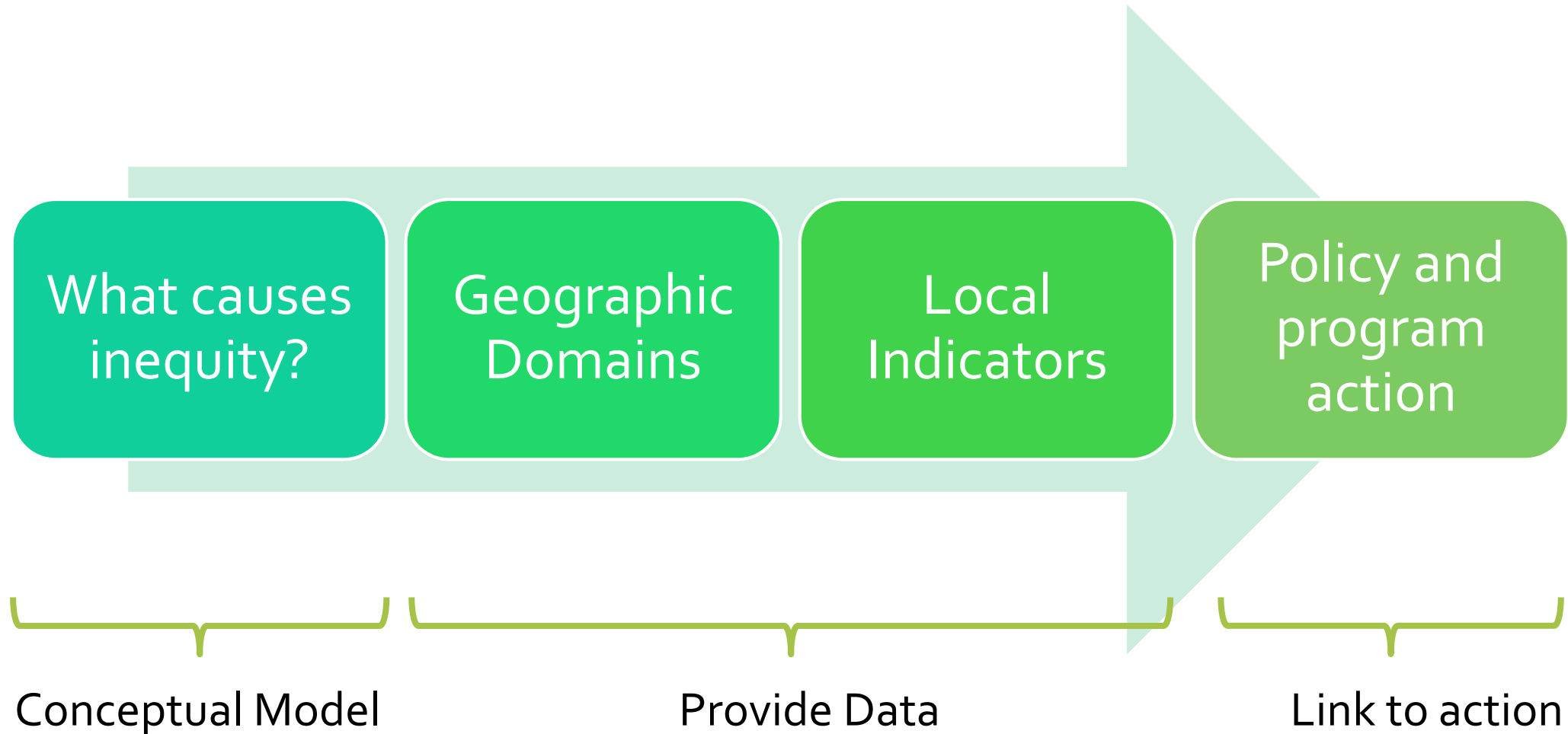
# Maternal Mortality Review Committee

1. Was the death pregnancy related?
2. What was the cause of death?
3. Was the death preventable?
4. What were the factors contributing to this death?
5. What are the recommendations to address contributing factors?
6. What is the anticipated impact of those actions if implemented?

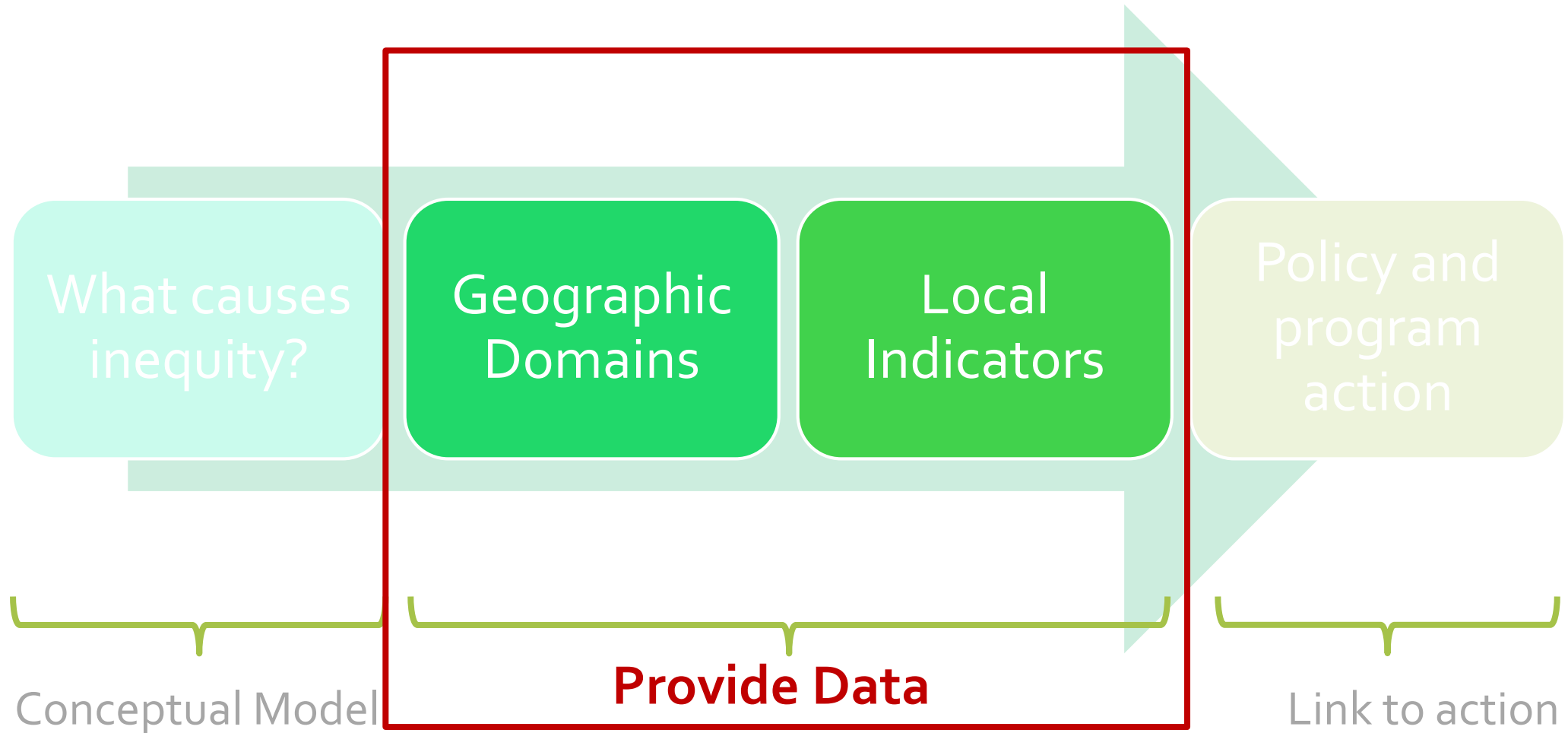
# Maternal Mortality Review Committee

1. Was the death pregnancy related?
2. What was the cause of death?
3. Was the death preventable?
4. **What were the factors contributing to this death?**
5. **What are the recommendations to address contributing factors?**
6. What is the anticipated impact of those actions if implemented?

# Changing the conversation: Building a *Health Equity Toolkit*



# Changing the conversation: Building a *Health Equity Toolkit*



## General Health Service Environment

- PCPs per 100,000
- % uninsured
- % Medicaid eligible
- Obesity prevalence
- % poor/fair health

## Reproductive Health Service Environment

- OB-GYNs per 100,000
- CNMs per 100,000
- Unmet family planning need
- % LBW
- Infant mortality rate

## Behavioral Health Service Environment

- Mental health provider per 100,000
- Unmet substance use treatment need
- Prevalence poor mental health days
- Prevalence suicidal ideation
- Opioid prescription rate
- Drug overdose death rate

## Transportation Environment

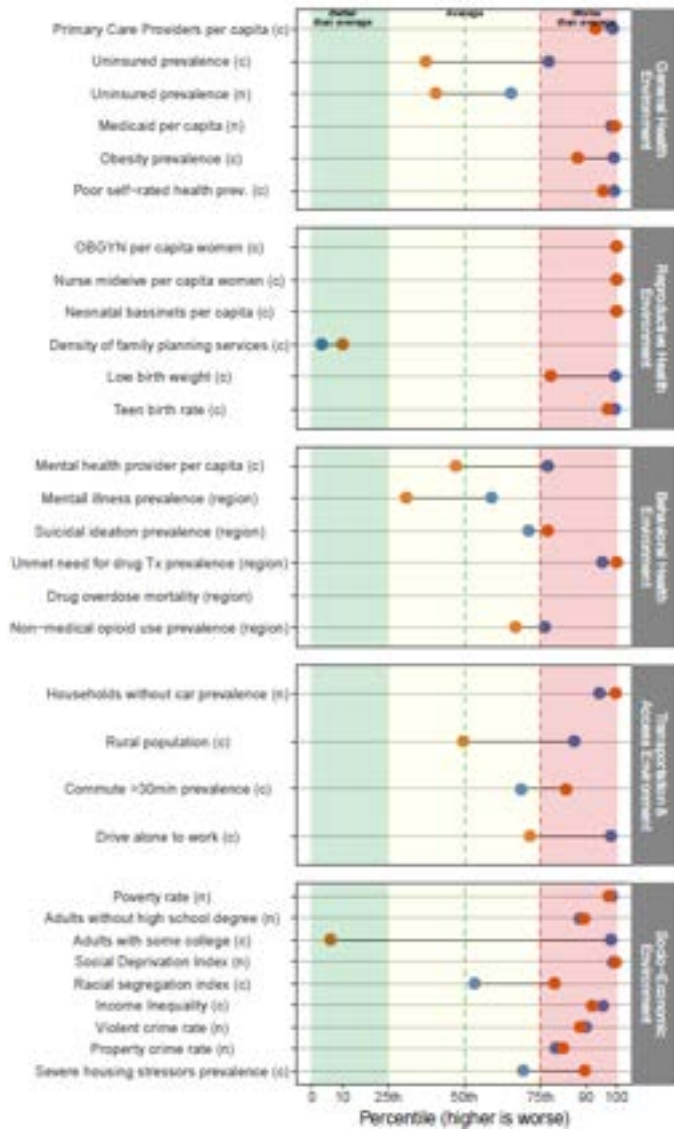
- % households with no car
- % access to public transit
- % with long commute
- Rural/urban status

## Socio Economic Environment

- Poverty
- Social capital
- Food insecurity
- Violent crime rate
- Unstable housing
- Racial & economic segregation

37b0d0b5-8756-46f8-0bd3-9106e854910

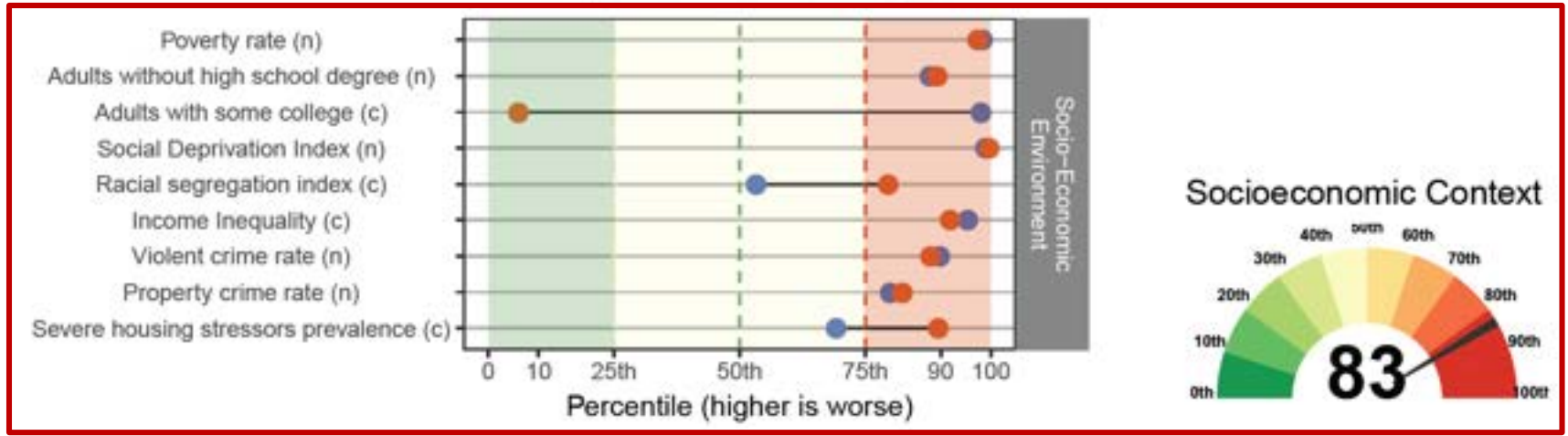
● Mississippi ● National



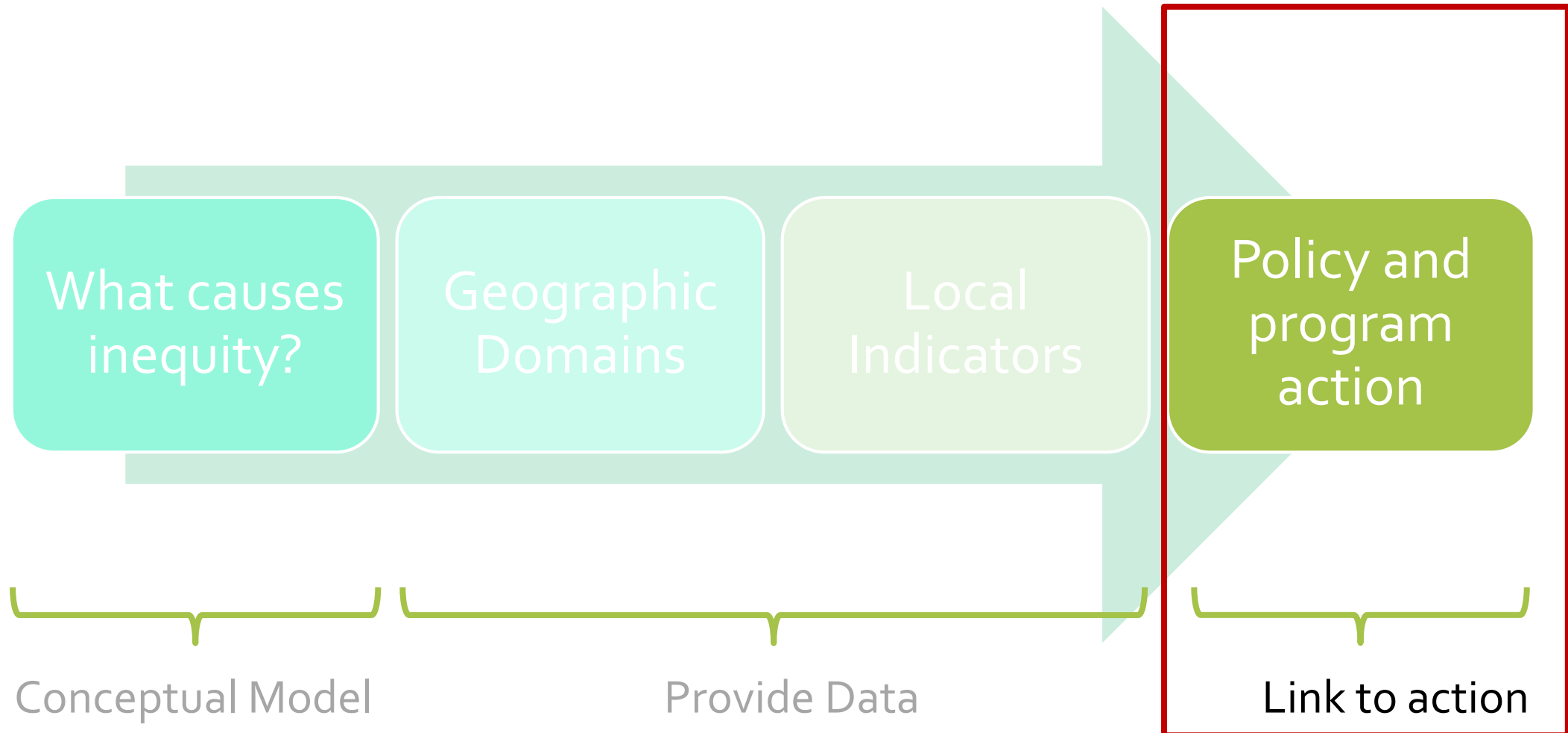
# Community Vital Signs Dashboard



Compare this woman to other women in Mississippi or Nation



# Changing the conversation: Building a *Health Equity Toolkit*



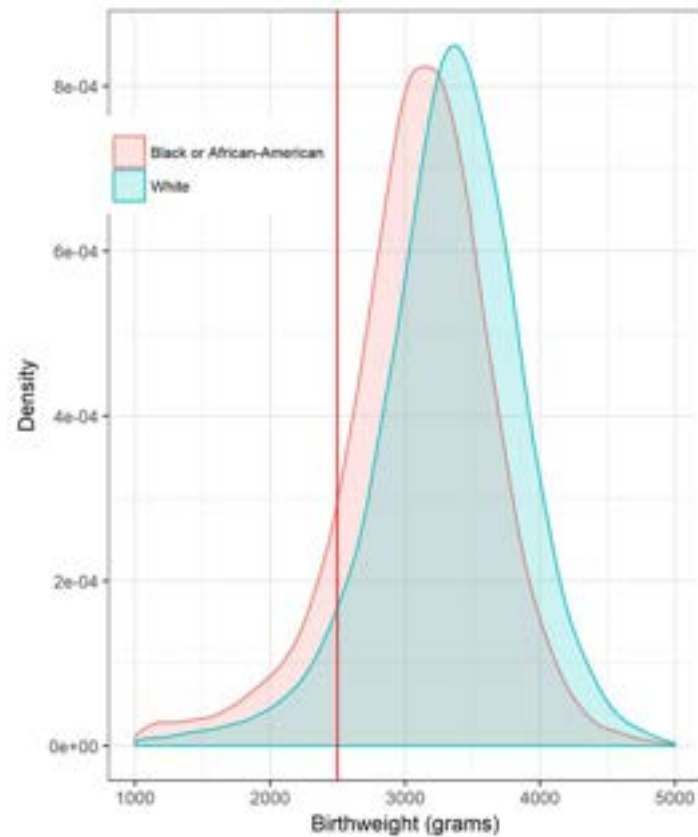
# Community factors need community solutions

Domain	Strategy	Description
Access to care	Community health workers	Engage lay health workers to provide education, referral, home visiting...
Access to care	Magnolia Project	Provide prenatal and interconception care, case management via Healthy Start
Alcohol & Drug Use	Drug Courts	Use specialized courts for alternative to incarceration for substance users
Community safety	Cure Violence Health model	Detect and intervene in violent situations, mobilize communities and connect high risk individuals to services

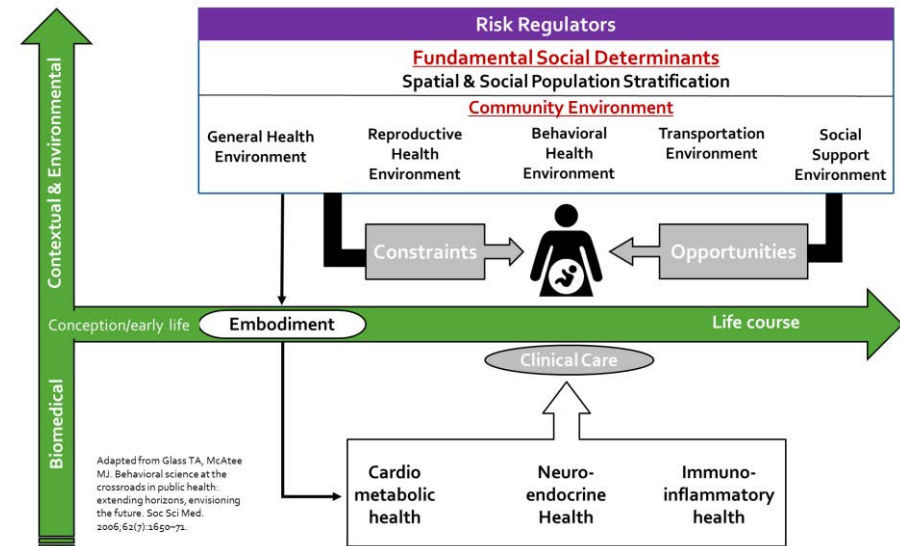
# Community factors need community solutions

Domain	Strategy	Description
Housing & Transit	Social service integration	Coordinate access to services across delivery systems (e.g. housing, health, child welfare)
Income	Child care subsidies	Provide financial assistance to working parent looking for jobs or seeking health care
Quality of Care	Trauma-informed health care	Shift the way health care organizations approach trauma
Family & Social Support	Mental Health First Aid	Provide 8-12 hour training to educate laypeople and first responders about how to assist individuals in mental health crisis

# 1. Thinking about equity is different...



Causes of disparities are not *individual* but instead environmental



Maternal outcomes are shaped across time and across levels

## 2. Action to achieve equity must be different



Examine data about context and community



Build the policy toolkit for outside as well as inside the healthcare system

# Other resources

- Wang E, Glazer KB, Howell EA, Janevic TM. **Social Determinants of Pregnancy-Related Mortality and Morbidity in the United States: A Systematic Review.** *Obstet Gynecol.* 2020;00(00):1–20.
- Kramer MR, Strahan AE, Preslar J, Zaharatos J, St Pierre A, Grant JE, et al. **Changing the conversation: applying a health equity framework to maternal mortality reviews.** *Am J Obstet Gynecol.* 2019 Dec;221(6):609.e1-609.e9.
- Howell EA, Zeitlin J. **Improving hospital quality to reduce disparities in severe maternal morbidity and mortality.** *Semin Perinatol.* 2017;1–7.
- Jones CP. **Levels of racism: a theoretic framework and a gardener's tale.** *Am J Public Health.* 2000;90(8):1212–5.

# QUESTIONS?

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[mkramo2@emory.edu](mailto:mkramo2@emory.edu)



**PROMOTING A HEALTH EQUITY  
APPROACH TO MATERNAL HEALTH:  
THE IMPACT OF RACISM AS A CHRONIC  
STRESSORS AMONG AFRICAN AMERICANS**

**Dr. Sierra Carter**

**Georgia State University**

**Assistant Professor of Clinical and  
Community Psychology**

**Email: [scarter66@gsu.edu](mailto:scarter66@gsu.edu)**



**EMORY  
UNIVERSITY**

# OVERVIEW

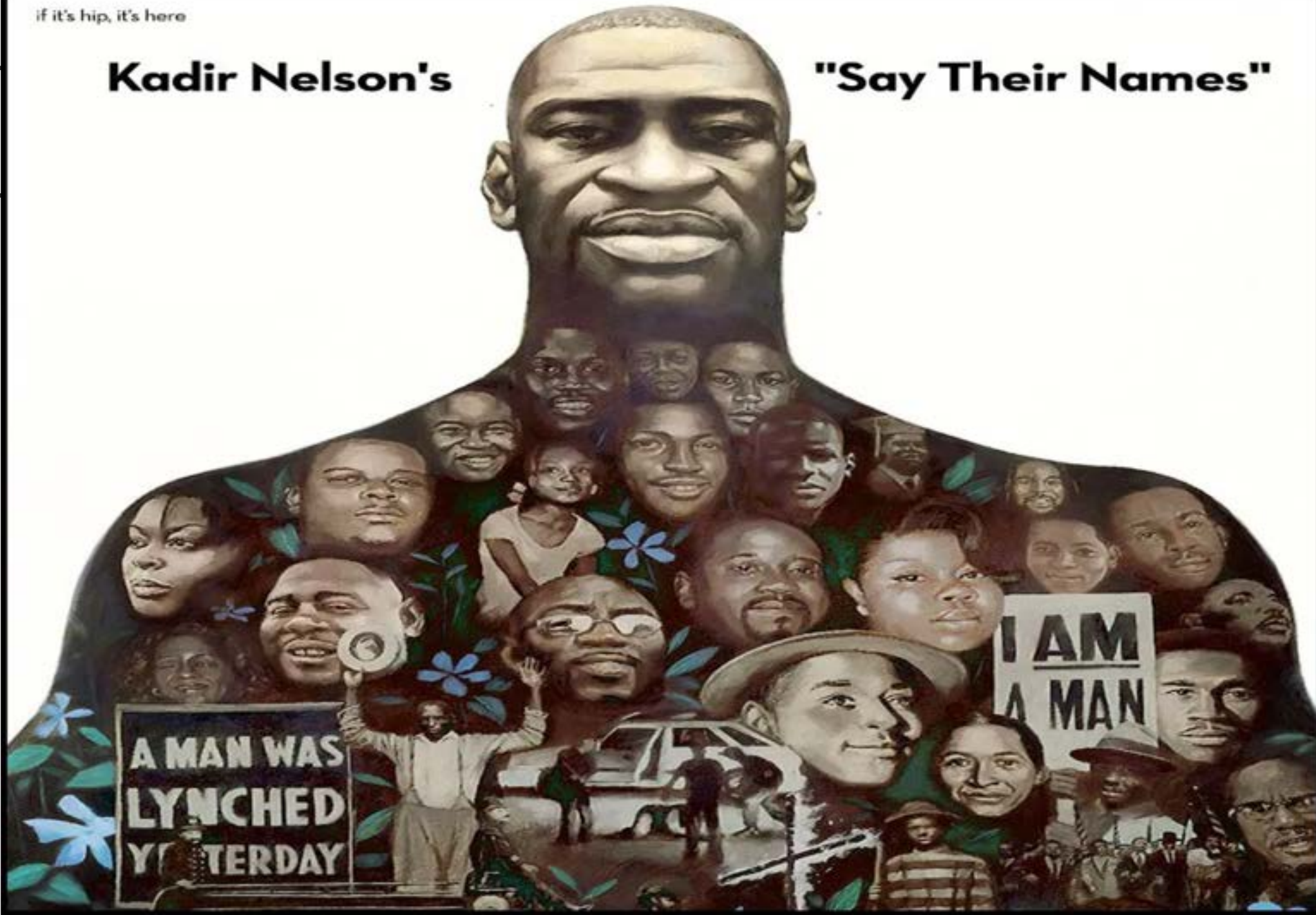
- 1. Brief Background (Definitions & Findings)**
- 2. Effects of Racism as a Chronic Stressors on Health for African American Women**
  - Intergenerational effects**
- 3. Informing Multilevel Interventions**
- 4. Take Home Points**



if it's hip, it's here

**Kadir Nelson's**

**"Say Their Names"**

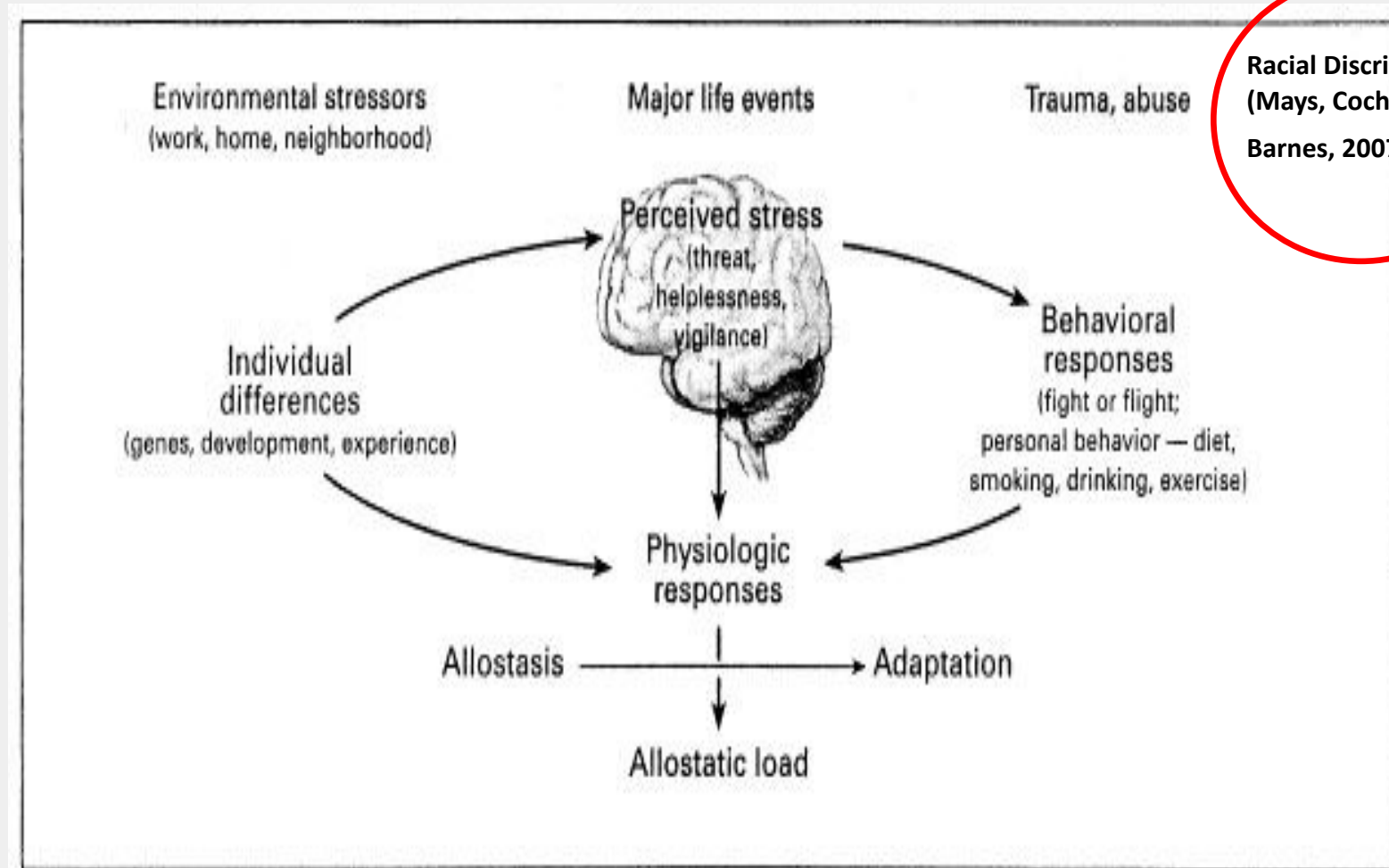


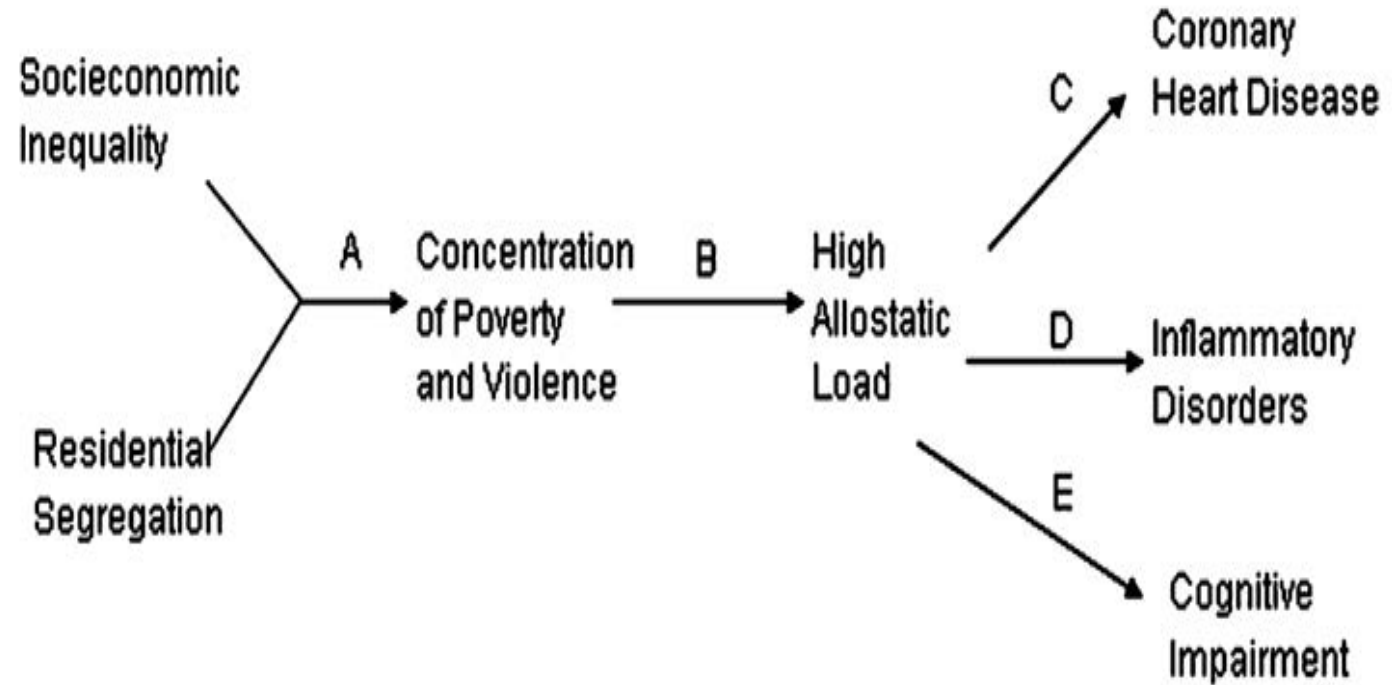
# BACKGROUND: RACISM AND RACIAL DISCRIMINATION

- **Racial discrimination:** The unjust or prejudicial treatment of different categories of people on the grounds of race
  - **\*At least 90% of Black adults and youth as young as 8 report experiencing at least 1 incident of racial discrimination in the last year**
- **Structural racism:** the societal systems, social forces, institutions, and ideologies that perpetuate racial inequities
- Discrimination types and experiences can differ
  - In-vivo and vicarious
  - Racial Trauma or Race-based trauma
  - Objective and subjective
  - Interpersonal and institutional



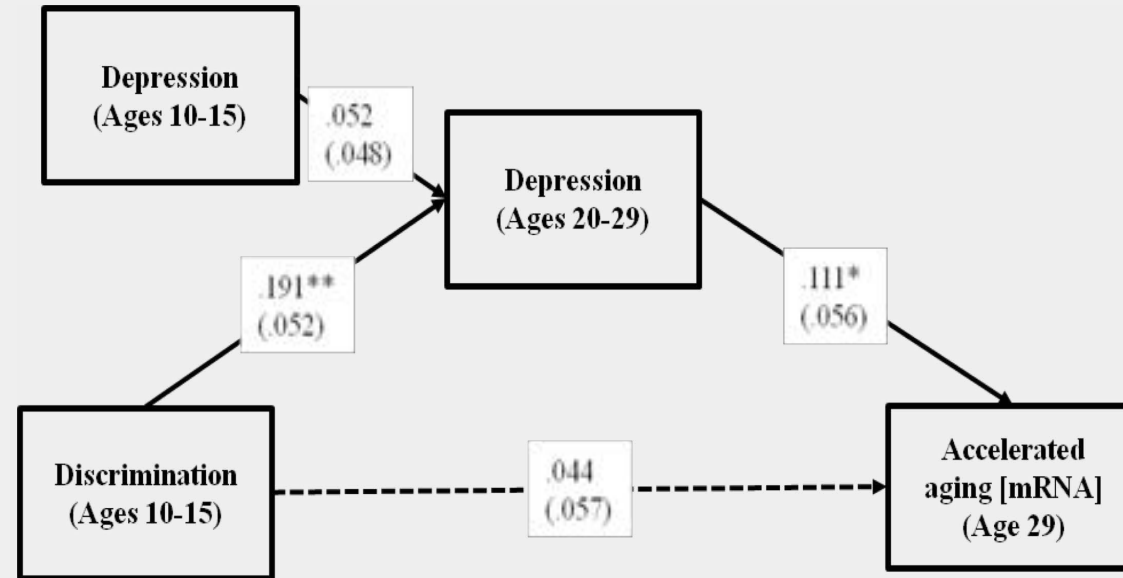
# MCEWEN'S (1998) MODEL OF STRESS RESPONSE





Mays et al.,  
2007


## THE EFFECT OF EARLY DISCRIMINATION ON ACCELERATED AGING AMONG AFRICAN AMERICANS



- **Figure 1.** Effects of early racial discrimination (ages 10 – 15) on accelerated aging (age 29) mediated through young adult depression (ages 20-29). Not shown, effects of sex, healthful diet, exercise, alcohol consumption, and sleep quality are controlled in these analyses. The indirect effect is significant  $\beta = .021$  [.001, .057]
- \*\* $p \leq .01$ ; \* $p \leq .05$  (two-tailed tests),  $n = 368$ .





A photograph of a Black Lives Matter protest. In the foreground, a Black man lies on his back on the pavement, wearing a dark blue t-shirt and jeans. A man in a camouflage jacket and a black beanie stands over him, holding his hands. To the right, a woman in a black t-shirt with yellow text is shouting. In the background, other protesters are visible, some holding up their phones to record. The scene is set in an urban environment with buildings in the background.

# Conceptualization of the Intergenerational Impact of Racism in Black Lives

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## INTERGENERATIONAL IMPACT OF RACISM ON HEALTH

- Descendants of survivors of mass and targeted trauma experience grief and other mental, behavioral, and somatic symptoms akin to what might be expected if the trauma was witnessed directly (Heart & DeBruyn, 1998).
  - Long-term adverse health impacts linked to structural and institutional racism (i.e., Jim Crow laws (Krieger et al., 2014)
- Studies of children of Holocaust survivors and multiple generations of Native Americans suggest a link between these racialized traumatic experiences and the well-being of future generations
  - Biological Embedding: How racism “gets under the skin” for generations
  - Limited research on the impact of slavery on current generations of Black people

## **INTERGENERATIONAL IMPACT OF RACISM: POSTTRAUMATIC SLAVE SYNDROME**

The traumatic effects of enslavement were transferred to successive generations (Crawford, Nobles, & DeGruy, 2003; DeGruy, 2017)

The effects of environmental challenges faced by a parent may be displayed by offspring despite the children not encountering the same challenges



# INTERGENERATIONAL IMPACT OF RACISM: POSTTRAUMATIC SLAVE SYNDROME

- **DeGruy (2017) argued that decreased self-esteem, ever present anger, and racist socialization are the psychological markers for posttraumatic stress syndrome and explain intergenerational family discord and the numerous disparities in health outcomes.**
- **Example: “I have to work twice as hard”**





**Key Example of the  
Longstanding Effects  
of Racism:**

**Maternal Health and  
Morbidity among  
Black women**

# Maternal Health and Racism Pandemic for Black Americans

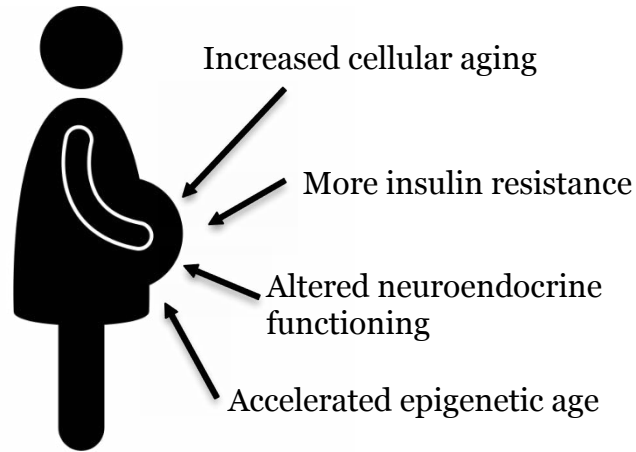


- The primary antecedent of infant mortality is low birthweight
- Unlike some other health disparities, education and income is not necessarily the primary factor influencing poor trajectories in maternal health
  - Babies born to college-educated Black women are still more likely to have a lower birth weight than babies born to White women who dropped out of high school (Mathews and MacDorman, 2006)
- Pregnant women from marginalized communities are at high risk for problematic birth outcomes and maternal mortality due to historical trauma, exposure to racism and discrimination, which likely persists for **generations** (Conching & Thayer, 2019; Green & Darity, 2010; Lehrner & Yehuda, 2018)

## Prenatal

## Birth

## Infancy



### *Individual Level Factors*

- Racial discrimination, prejudice, and stigma experienced by the mother
- Racial trauma
- Racial profiling

### *Community Level Factors*

- Exposure to hate crimes
- Exposure to racially-motivated violence

### *Structural Level Factors*

- Structural racism
- Historical trauma
- Segregation
- Neighborhood deprivation and housing instability
- Exposure to pollutants
- Poor quality education
- Poverty
- Access to health care

- Discriminatory hospital practices
- Access to health care
- Increased risk for maternal mortality
- Increased risk for poor birth outcomes such as preterm birth and low birth rate

- Altered physiological responses to stress in infants
  - Lower heart rate variability
  - Greater cortisol reactivity

## **\*Intergenerational Effects of Racism**

# #SAYHERNAME

A VIGIL IN REMEMBRANCE OF BLACK WOMEN AND GIRLS KILLED BY THE POLICE  
NEW YORK CITY | MAY 20, 2015

**WE SEE  
LOVED ONES  
MURDERED**

*"Ambitious, a dedicated friend, entrepreneurial."*



**#SAYHERNAME  
MIRIAM CAREY**

October 3, 2013 | Washington DC

*"A mama's girl, affectionate, forgiving"*

"What did the police officer see when he pried open the door? A Black woman? A lesbian? He said it was just a look on her face. What face would you have on if the police broke into your house?"

- Fran Garrett, mother

**#SAYHERNAME  
MICHELLE CUSSEA**

August 13, 2014 | Phoenix, AZ



*"The whole party, was the best in town, living."*

"Every time she laughed she made you laugh even if you didn't know what she was laughing at."

- Martinez Sutton, brother

**#SAYHERNAME  
REKIA BOYD**

March 21, 2012 | Chicago, IL



*"Bubbly, creative, trendsetter"*

"Kayla had lots of friends, people were just drawn to her... She was always taking care of people."

- Maria Moore, Sister

**#SAYHERNAME  
KAYLA MOORE**

February 12, 2013 | Berkeley, CA



**PROMOTING HEALTH EQUITY AND  
CULTURALLY-COMPETENT/ HISTORICALLY  
CONSCIOUS TREATMENT FOR RACISM-  
RELATED STRESS**



THE CHECKUP

# The Impact of Racism on Children's Health

A new statement from the American Academy of Pediatrics looks at the effects of racism on children's development, starting in the womb.

By Perri Klass, M.D.

Aug. 12, 2019



# Considerations for Research, Intervention, and Prevention

- Further understanding of the biological mechanisms implicated in prenatal health disparities
- Bi-directional manner of chronic stressors?
  - Children's experiences of discrimination can impact maternal physical health outcomes in women of reproductive age (Colen et al., 2019).



# Considerations for Research, Intervention, and Prevention

- **Quality of care**
  - Quality of care for preterm infants in Neonatal Intensive Care Units (NICUs) differs depending on race and ethnicity (Beck et al., 2020)
  - Increase in examination and trainings related to bias and prejudice within medical settings
- **Acknowledgment of racial discrimination as a potentially potent chronic stressor for pregnant women in medical settings**



# What Serena Williams's scary childbirth story says about medical treatment of black women

Black women are often dismissed or ignored by medical care providers. Williams wasn't an exception.

By P.R. Lockhart | Jan 11, 2018, 4:40pm EST

**Racial disparities in  
AA childbirth  
complications/pre-  
term births and  
socioeconomic status**



# The Multiple Layers of Racism



- *“I have never felt more incompetent than when I was pregnant.”*
- *“He glared at me and said that if I wasn’t quiet he would leave and I would not get any pain relief.”- Dr. Tressie McMillan Cottom “THICK”*





U.S. • PROTESTS

# Dismay, Anger Over Grand Jury's Breonna Taylor Verdict Spills Into America's Streets



# VANITY FAIR

SEPTEMBER 2020



**BREONNA TAYLOR**  
A BEAUTIFUL LIFE

Painting by  
**AMY SHERALD**



# CONSIDERATIONS FOR TREATMENT OF RACISM-RELATED STRESS

- Interventions that consider the multiple layers of racisms that could prevent mental and physical health decline
- Radical healing in African American communities that utilize collectivism, activism, as well as strength and resilience (Grills, Aird, & Rowe, 2016)
- Healthcare providers/practitioners as important advocates for social justice (Quiros, Varghese, & Vanidestine, 2020)
- Examination of systems that are perpetuating racial injustice
- Potential for communities to engage in collective healing outside of current healthcare settings



# The Psychology of Radical Healing Framework



French, B.H., Lewis, J.A., Mosley, D., Adames, H.Y., Chavez-Dueñas, N.Y., Chen, G.A., & Neville, H.A. (2020).  
Toward a psychological framework of radical healing in communities of color. *The Counseling Psychologist*, 48(1), 14-46.

# TAKE HOME POINTS

- **Acknowledging that racism is a chronic stressful stimuli that is having a significant impact on health in our treatment settings is vital**
  - **Learn the history of racism in our society**
- **If we understand the history of racial injustice that influences current practices we can consider more racially equitable clinical solutions to address racism among African Americans**
- **Given our current socio-political climate and US legacy, it is important to think about novel ways to engage communities around therapeutic interventions for racism-related stress**



# Thank you! Questions?



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