



# Accelerating Upstream Together to Improve Maternal and Infant Health

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# Objectives

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- Describe key maternal and infant health indicators for the United States and Georgia
- Understand key contributors to maternal and infant health outcomes
- Identify key HRSA investments available to improve maternal and infant health



# Maternal and Child Health Bureau Strategic Plan

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## Mission

To improve the health and well-being of America's mothers, children, and families.

## Vision

Our vision is an America where all mothers, children, and families thrive and reach their full potential.

## MCHB Goals

### ACCESS

Assure access to high-quality and equitable health services to optimize health and well-being for all MCH populations.

### EQUITY

Achieve health equity for MCH populations.

### CAPACITY

Strengthen public health capacity and workforce for MCH.

### IMPACT

Maximize impact through leadership, partnership, and stewardship.

# Paradigm for Improving Maternal Health



## Accelerate

Hasten pace of change, innovate, & build evidence



## Upstream

Promote prevention and a life course approach



## Together

Collaborate, include voices of partners and people we serve

Learn more at <https://mchb.hrsa.gov>

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“...clearly that maternal mortality is in great measure preventable,

that no available figures show a decrease in the United States in recent years,

and that certain other countries now exhibit more favorable rates....”

## LETTER OF TRANSMITTAL.

U. S. DEPARTMENT OF LABOR,  
CHILDREN'S BUREAU,  
Washington, September 25, 1916.

SIR: I transmit herewith a report entitled "Maternal Mortality from all Conditions Connected with Childbirth in the United States and Certain Other Countries," by Dr. Grace L. Meigs in charge of the hygiene division of this bureau. This report has been prepared because the bureau's studies of infant mortality in towns and rural districts reveal a connection between maternal and infant welfare so close that it becomes plain that infancy can not be protected without the protection of maternity.

In this study Dr. Meigs undertakes to do no less than to assemble and interpret figures already published by the United States Bureau

U. S. DEPARTMENT OF LABOR,  
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will become an integral part of all plans for public health protection.

The generous assistance of the United States Bureau of the Census in the preparation of this report is gratefully acknowledged.

Dr. Meigs desires that special mention be made of the assistance of Miss Emma Duke, head of the statistical division of the Children's Bureau, and of Miss Viola Paradise, research assistant in the division of hygiene.

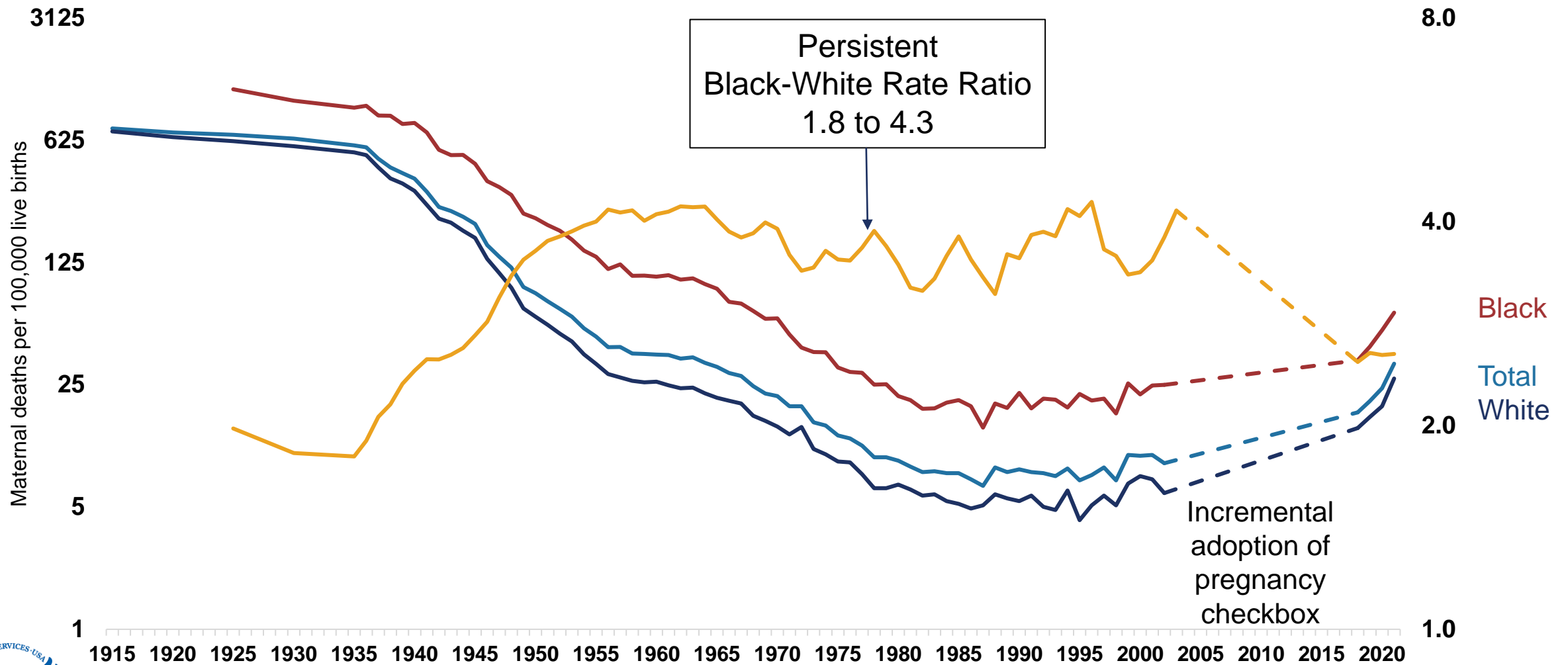
Respectfully submitted.

JULIA C. LATHROP,  
Chief of Bureau.

HON. WILLIAM B. WILSON,  
Secretary of Labor.

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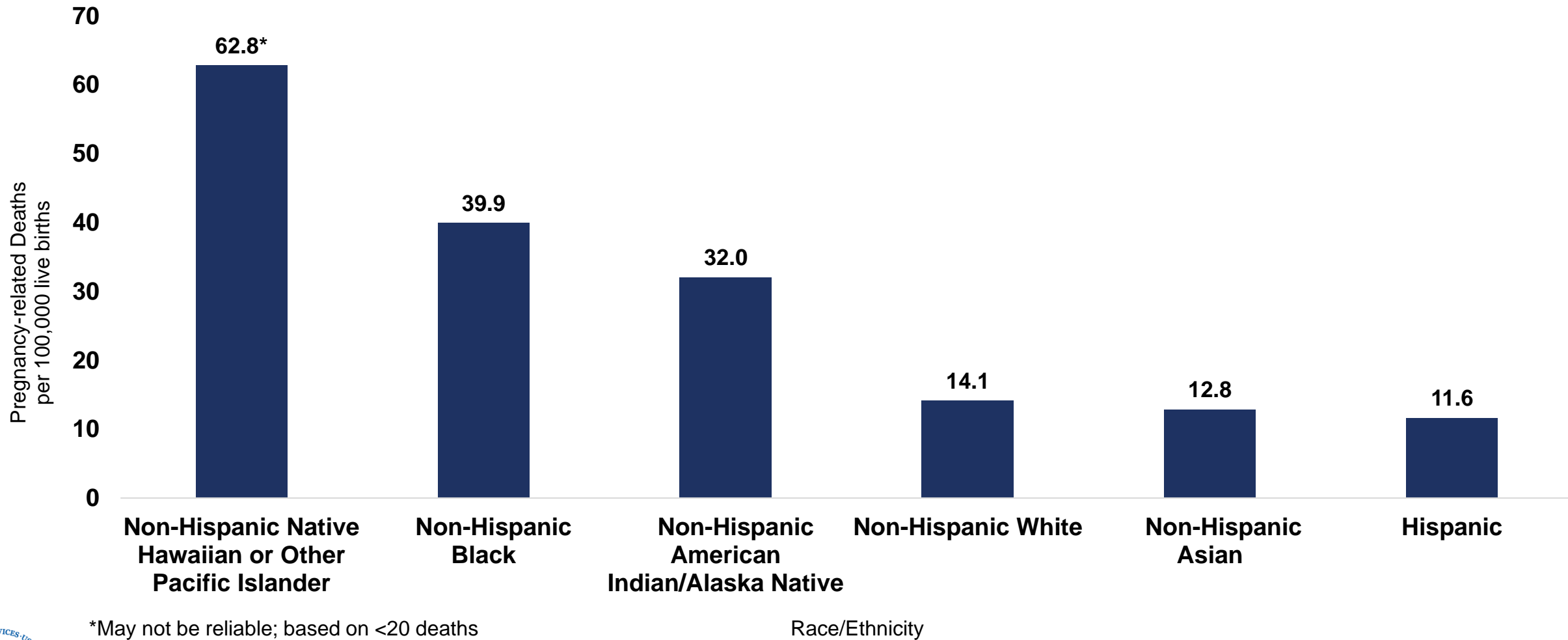
# Maternal Mortality Trends and Disparities, 1915-2021



Learn more at <https://mchb.hrsa.gov>



# Pregnancy-Related Mortality Ratios by Race/Ethnicity, 2017-2019



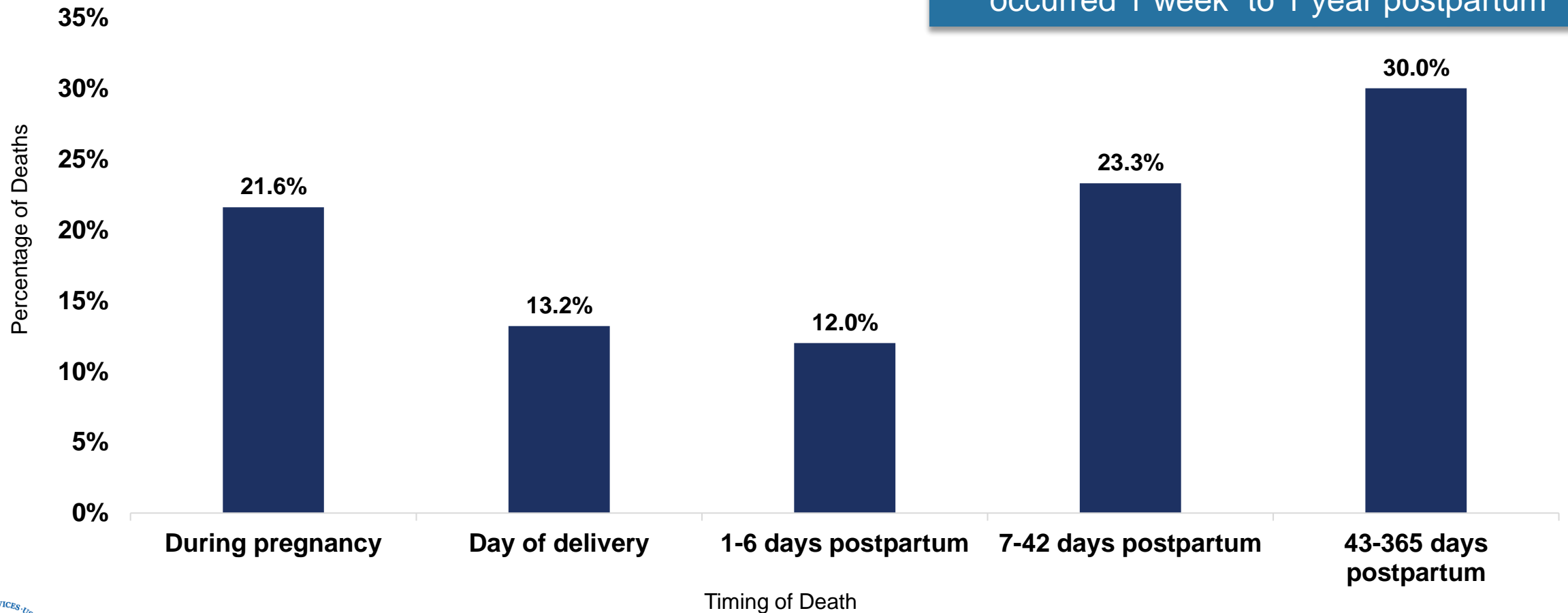
Learn more at <https://mchb.hrsa.gov>





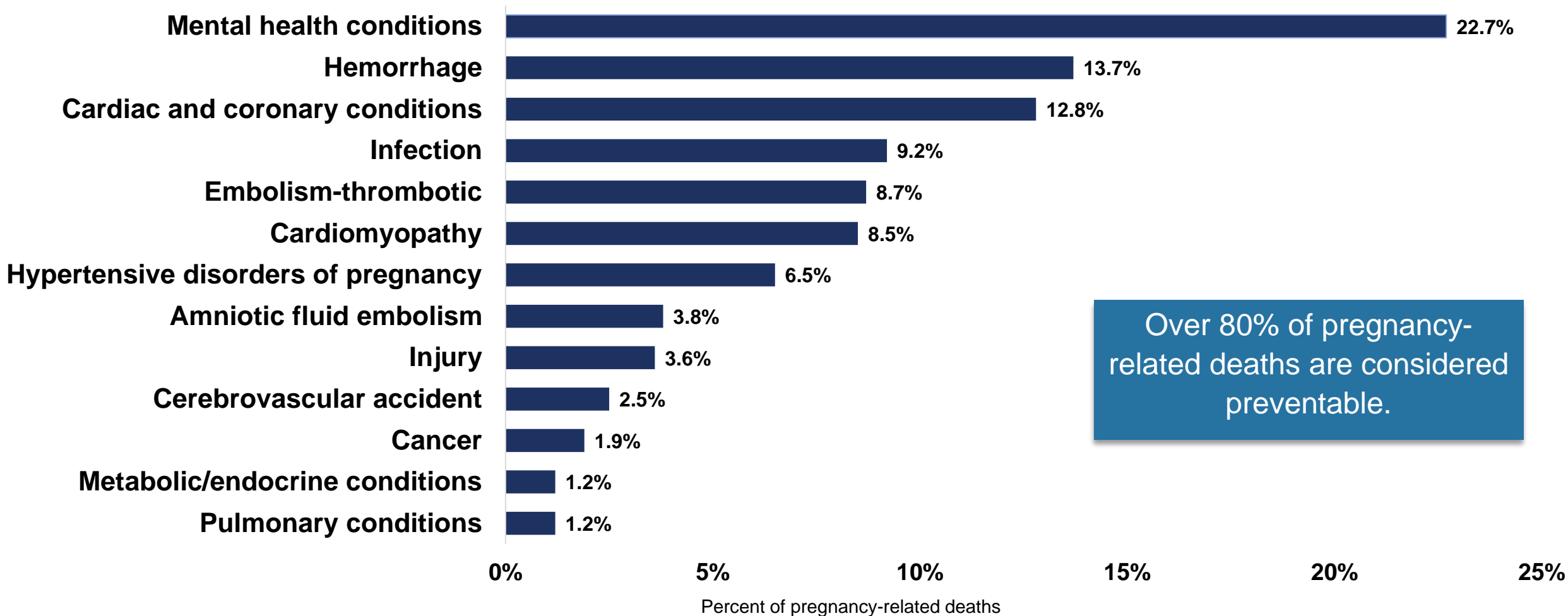
# Distribution of Pregnancy-Related Deaths by Timing of Death, 36 states (2017-2019)

More than half of pregnancy-related deaths occurred 1 week to 1 year postpartum



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# Underlying Causes of Pregnancy- Related Mortality, 36 states (2017-2019)



Over 80% of pregnancy-related deaths are considered preventable.

Note: Specific cause of death was missing (n=10) or listed as *unknown* (n=21) for a total of 3.0% of pregnancy-related deaths

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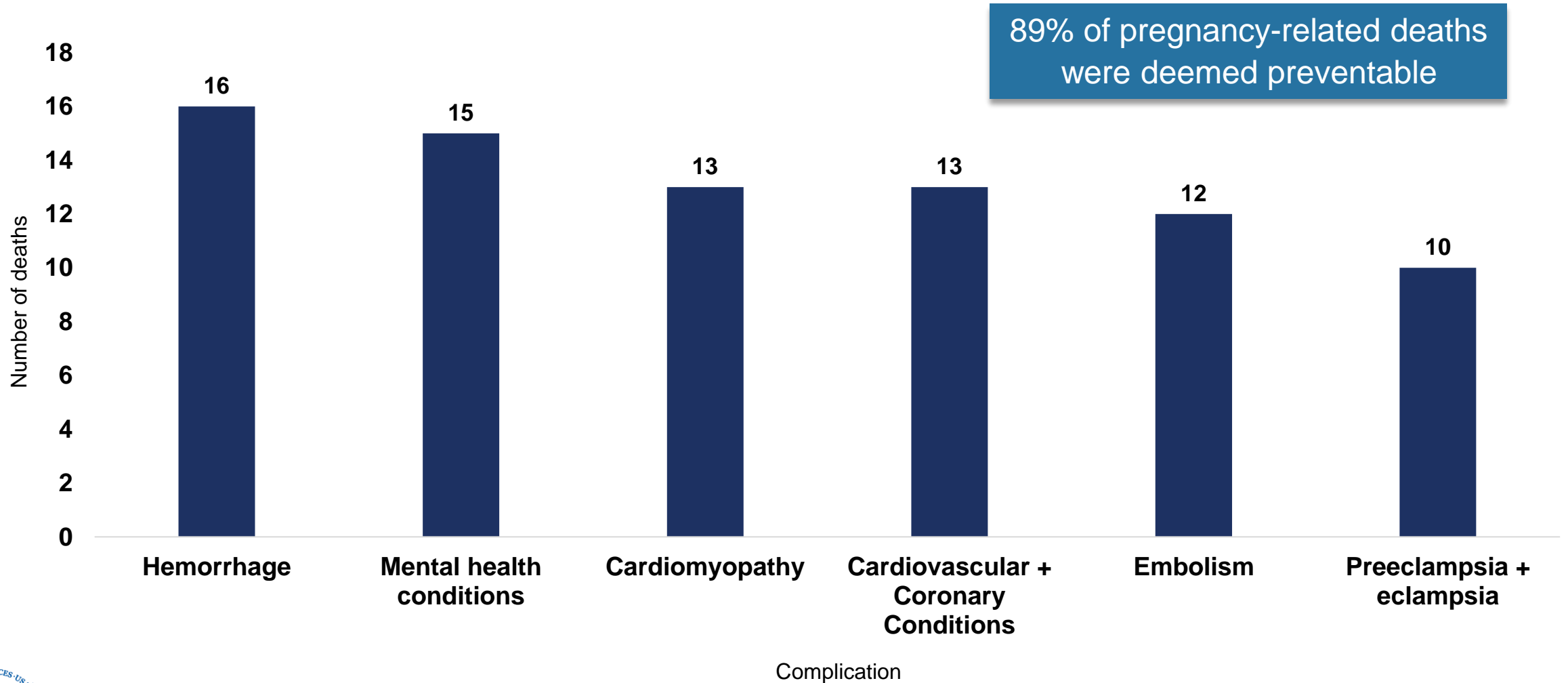


# Georgia: Pregnancy-Related Deaths 2018-2020

- 113 pregnancy-related deaths
  - 30.2 deaths per 100,000 live births
- Highest rates among:
  - Non-Hispanic Black women
  - Women with high school or less education
  - Medicaid at time of delivery

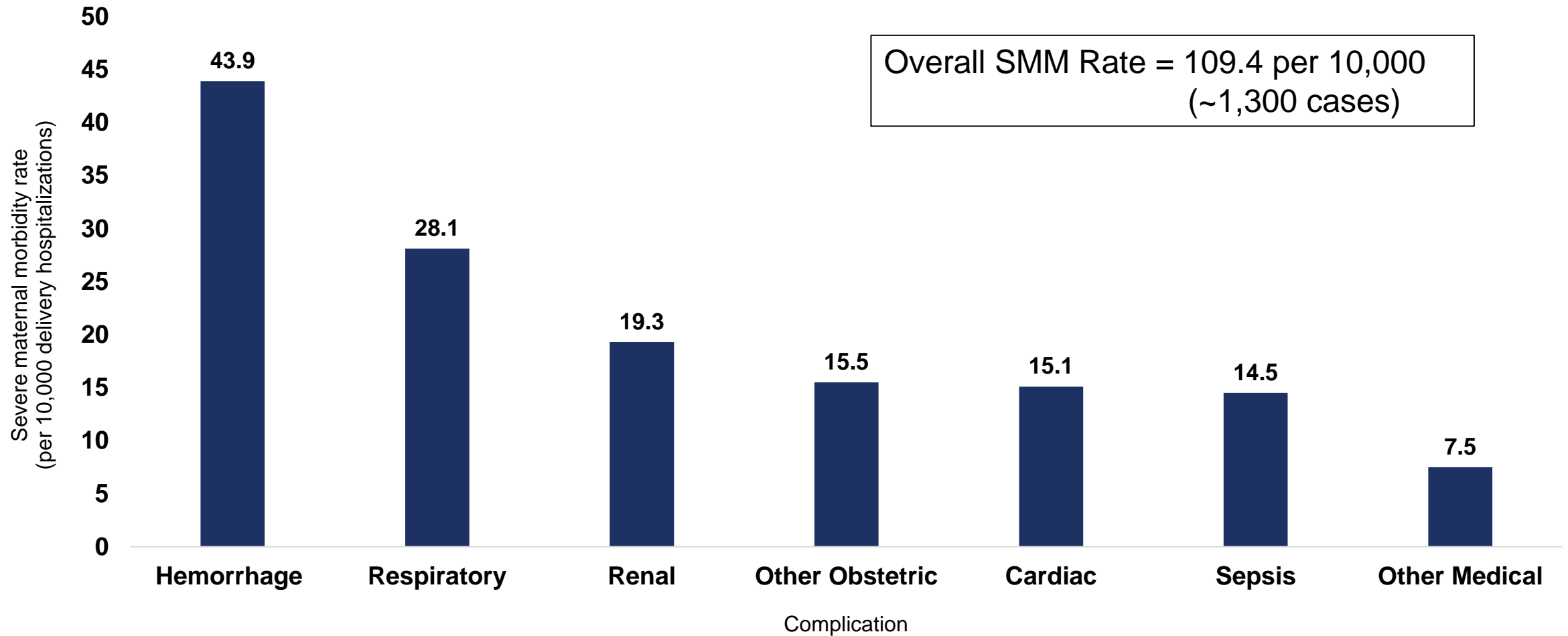


# Georgia: Leading Causes of Pregnancy-Related Death, 2018-2020

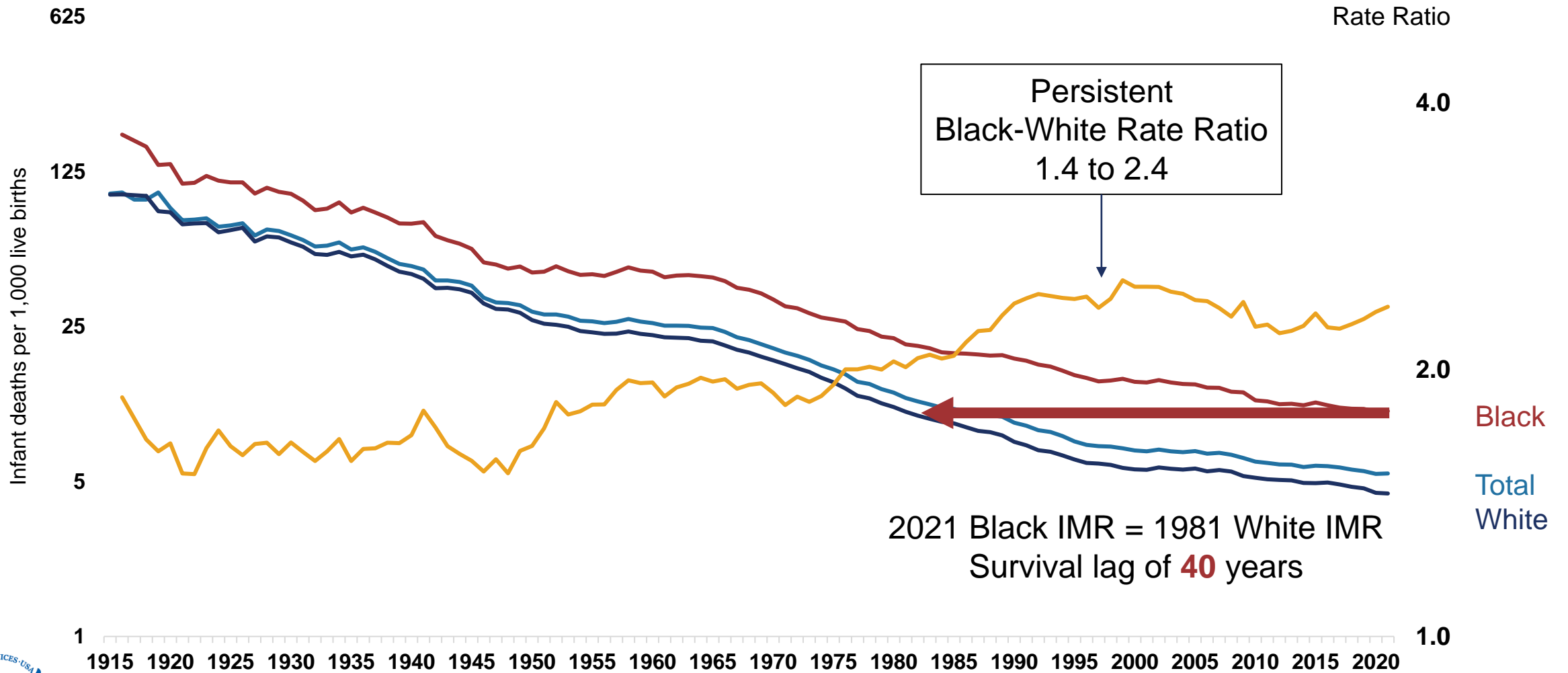


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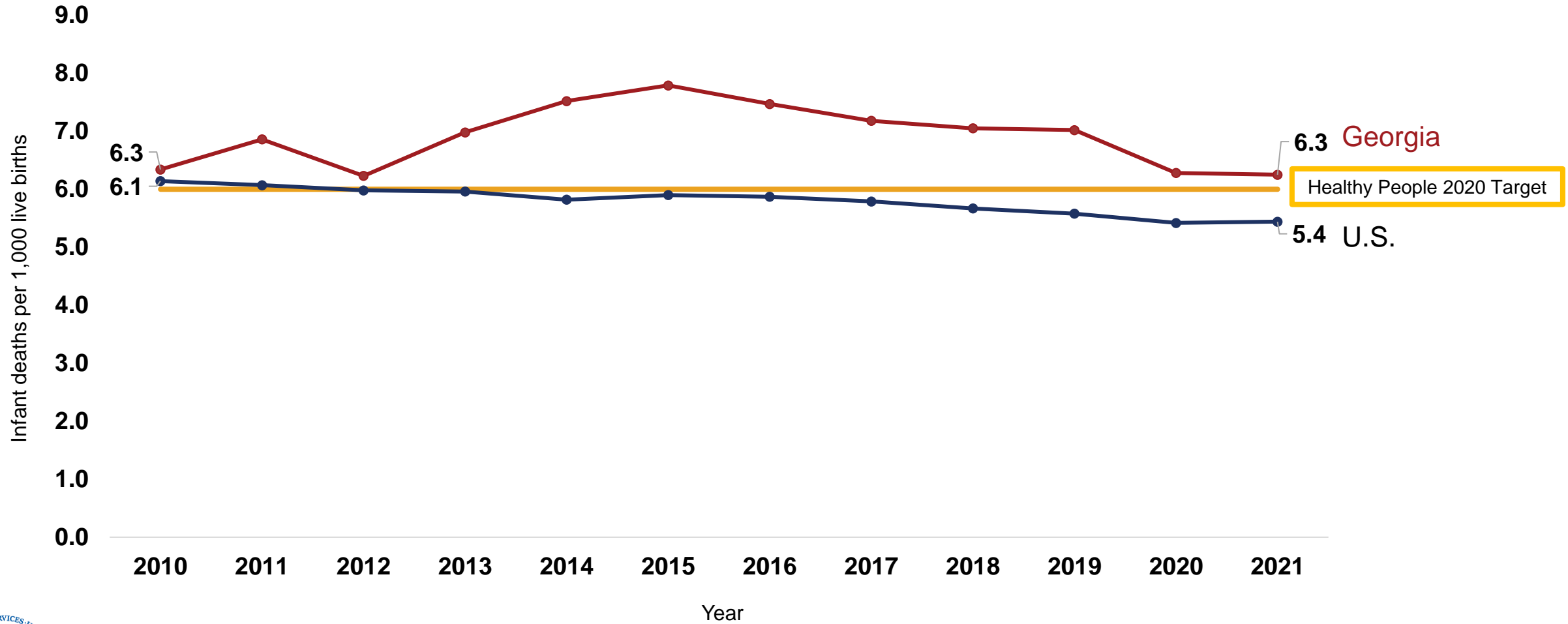
# Georgia: Severe Maternal Morbidity by Complication Type, 2021



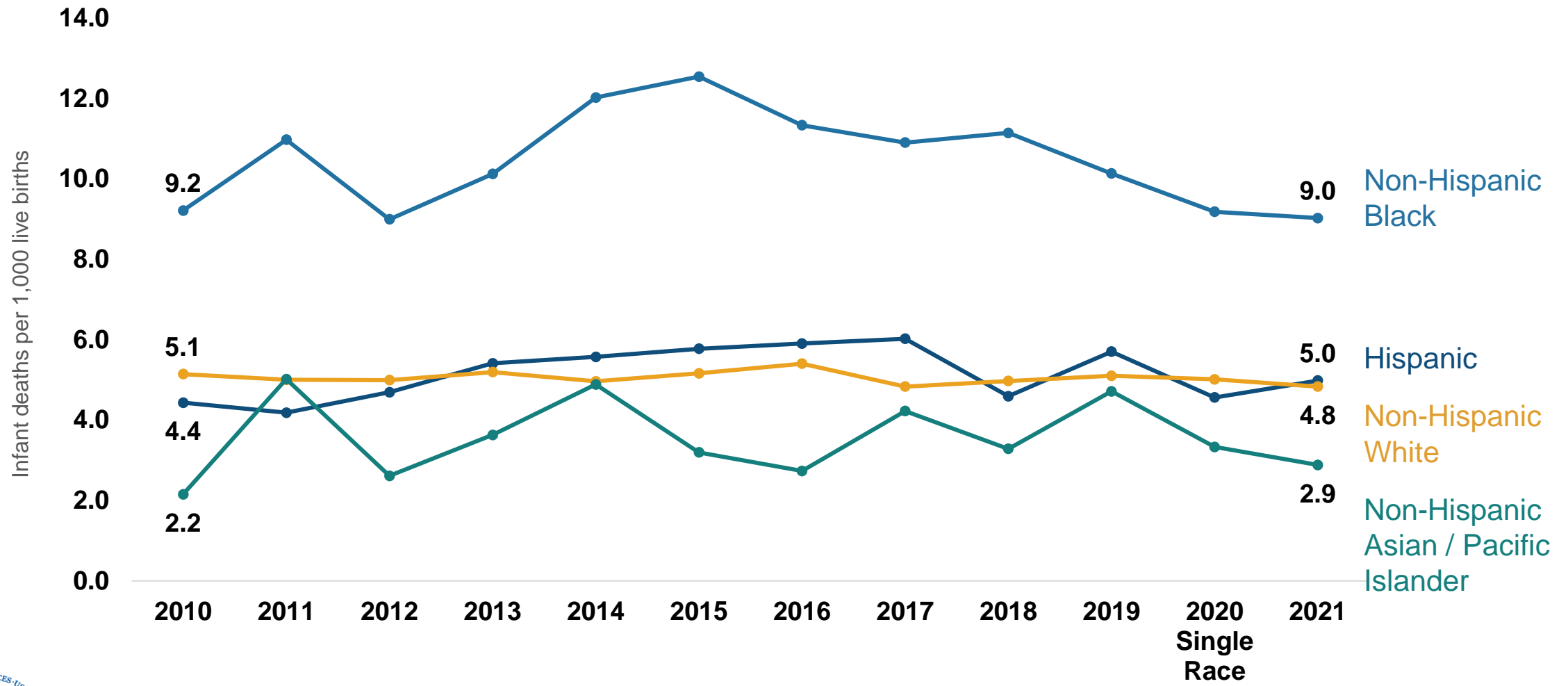
# Infant Mortality Trends and Disparities, 1915-2021



# Georgia: Infant Mortality Rates, 2010-2021



# Georgia: Infant Mortality Rates, 2010-2021

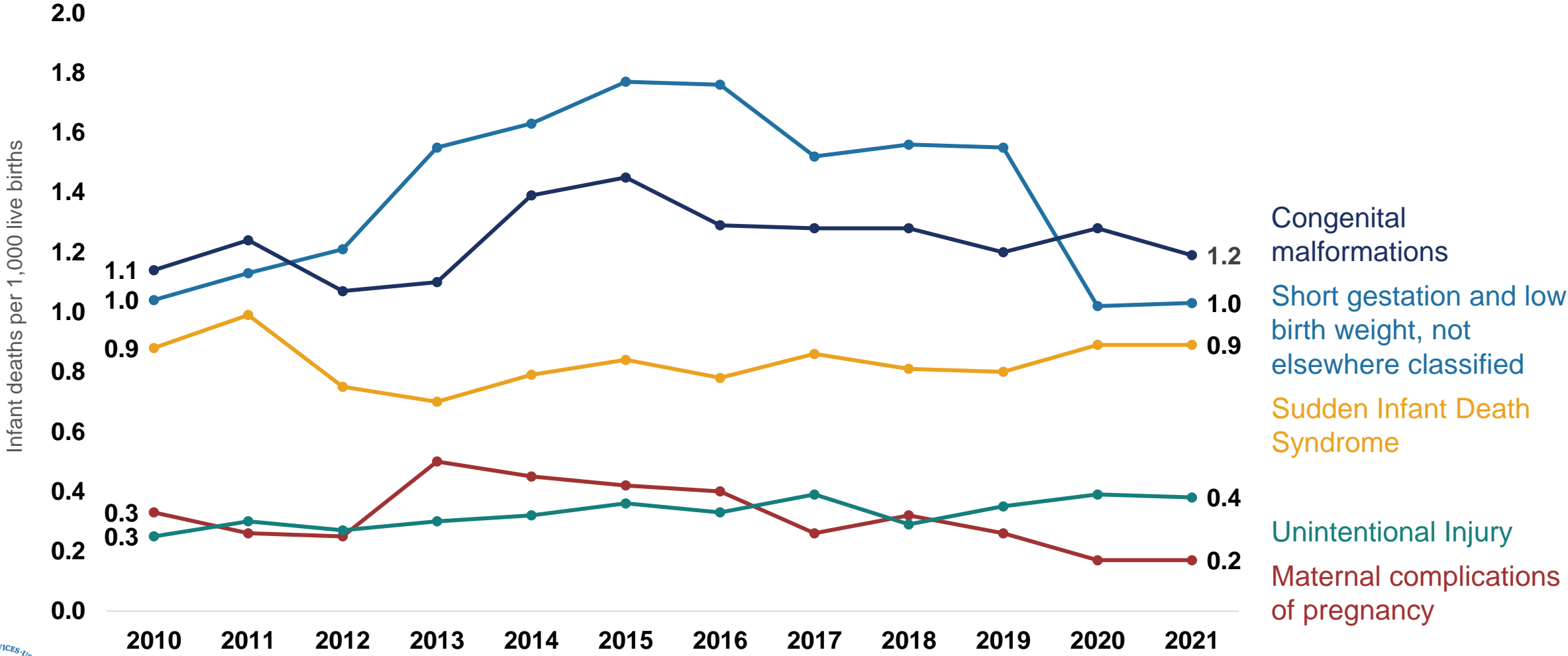


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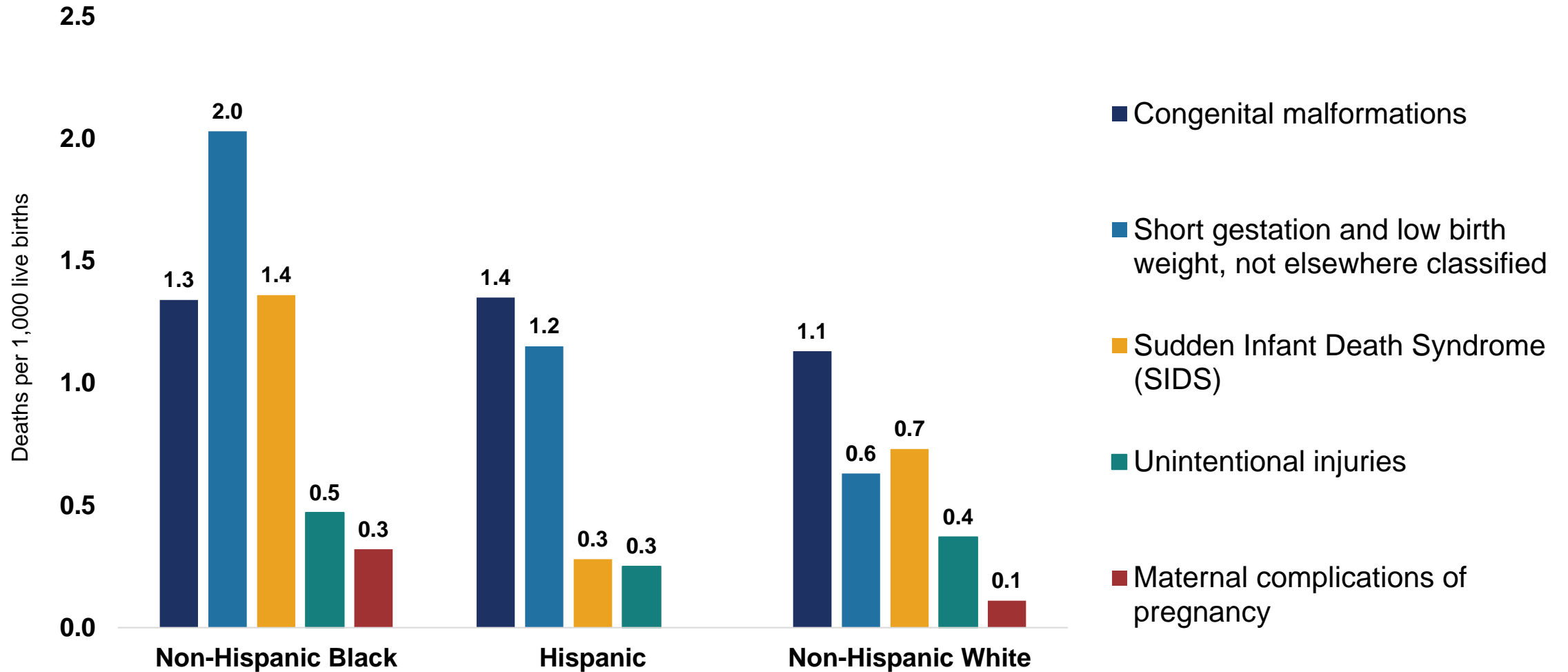
# Georgia: Cause of Infant Death, 2010-2021



Learn more at <https://mchb.hrsa.gov>



# Georgia: Cause of Infant Death by Race/Ethnicity, 2019-2021



Learn more at <https://mchb.hrsa.gov>

# Paradigm for Improving Maternal Health



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# “Upstream” Thinking

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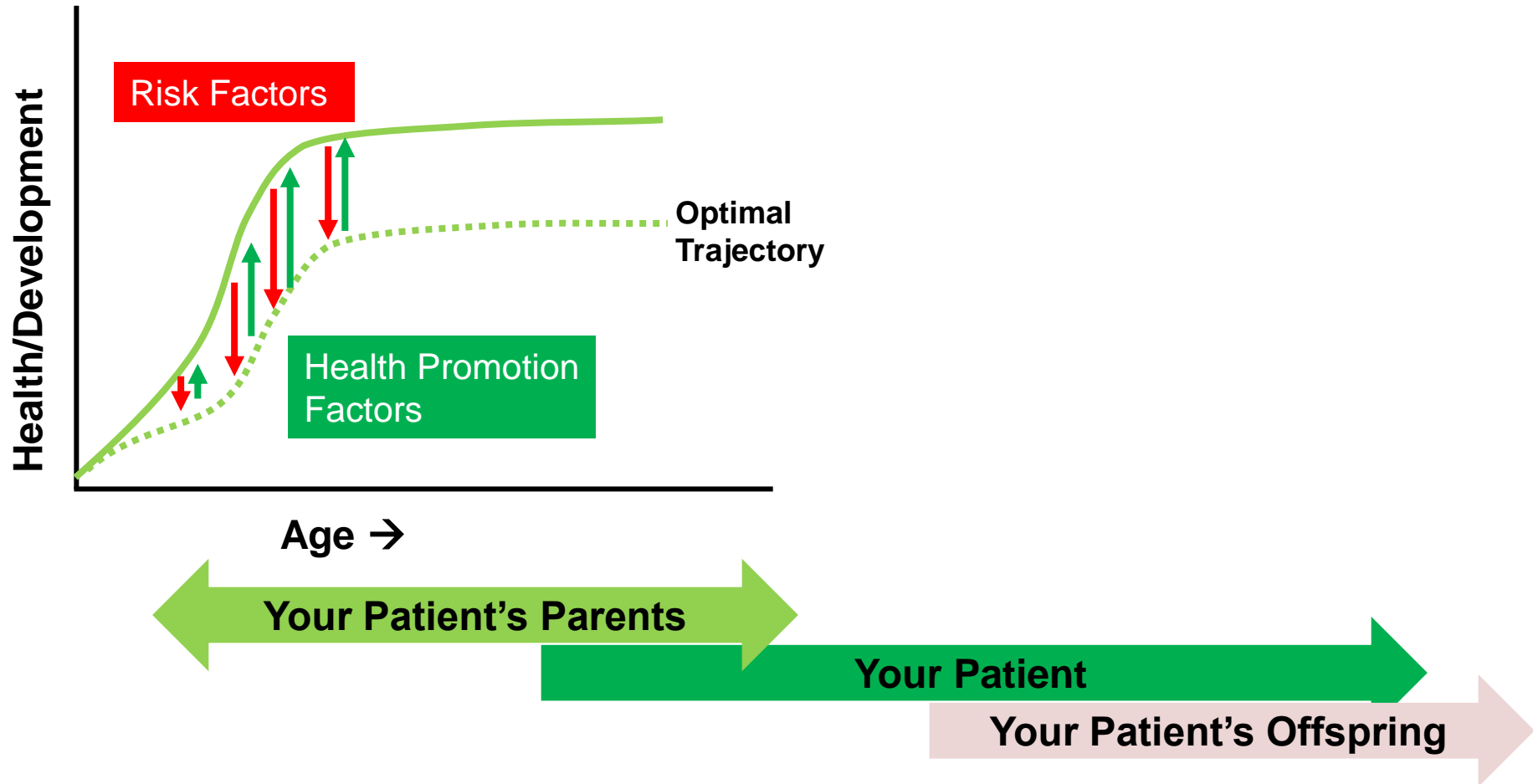


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# Life Course Approach



# Life Course Approach

Among girls:

- 28% **overweight or obese** (10-17 yo)
- 40% (all ages) report  $\geq 1$  **adverse childhood experiences**

Health/Development



Among women 18-44:

- 30% **without well-woman visit** in past 12 months
- 11% in “**fair or poor**” health
- 12% are **current smokers**
- 59% are **overweight or obese**
- 21% have household income of **<\$25k**

Age →

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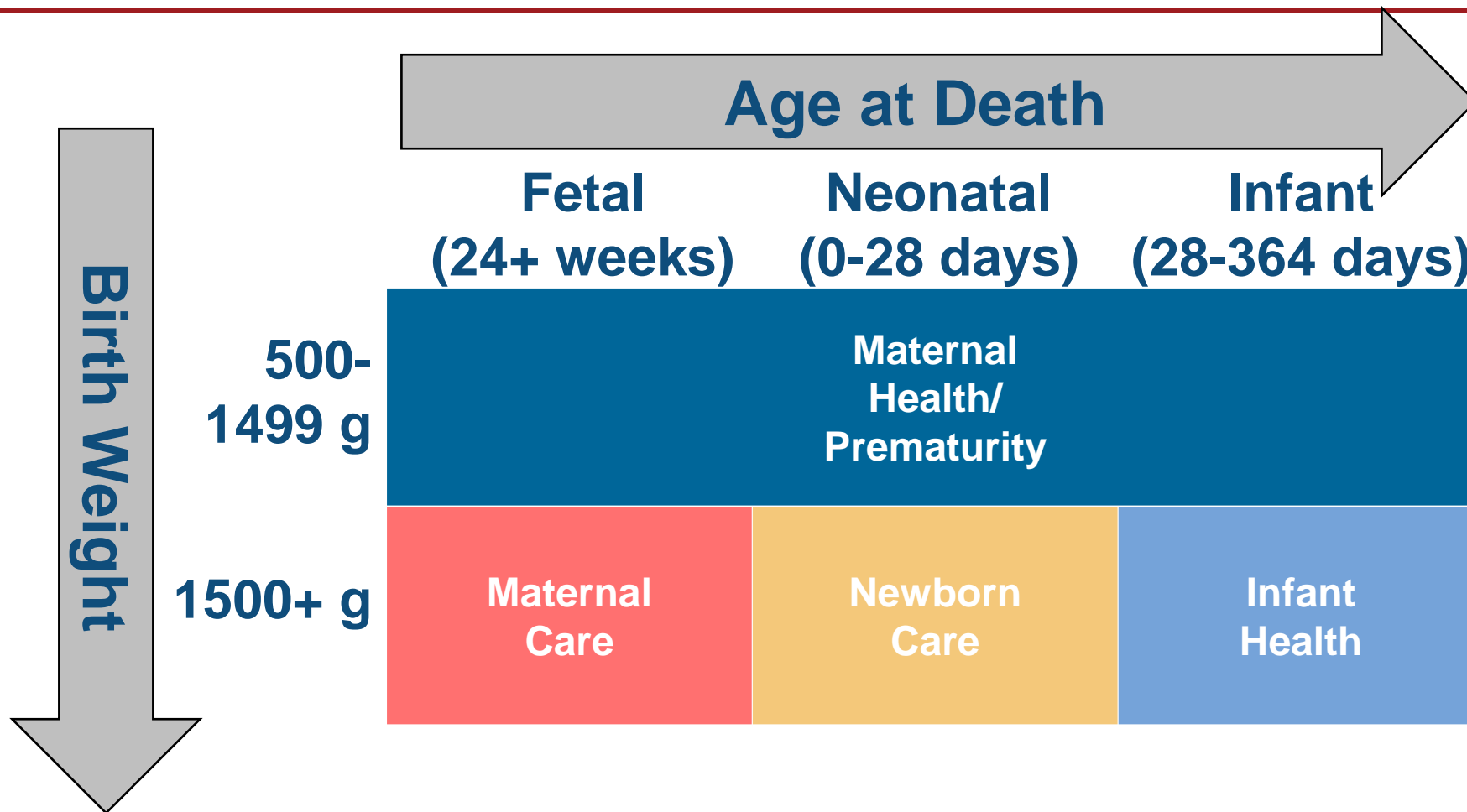


# Thinking Upstream About Prematurity

- Typical Rounds on Premature Infant
  - Vent settings
  - Discussion of morbidities
  - Fluid status
  - TPN stats
  - Labs
  - Maybe (hopefully) something about social status

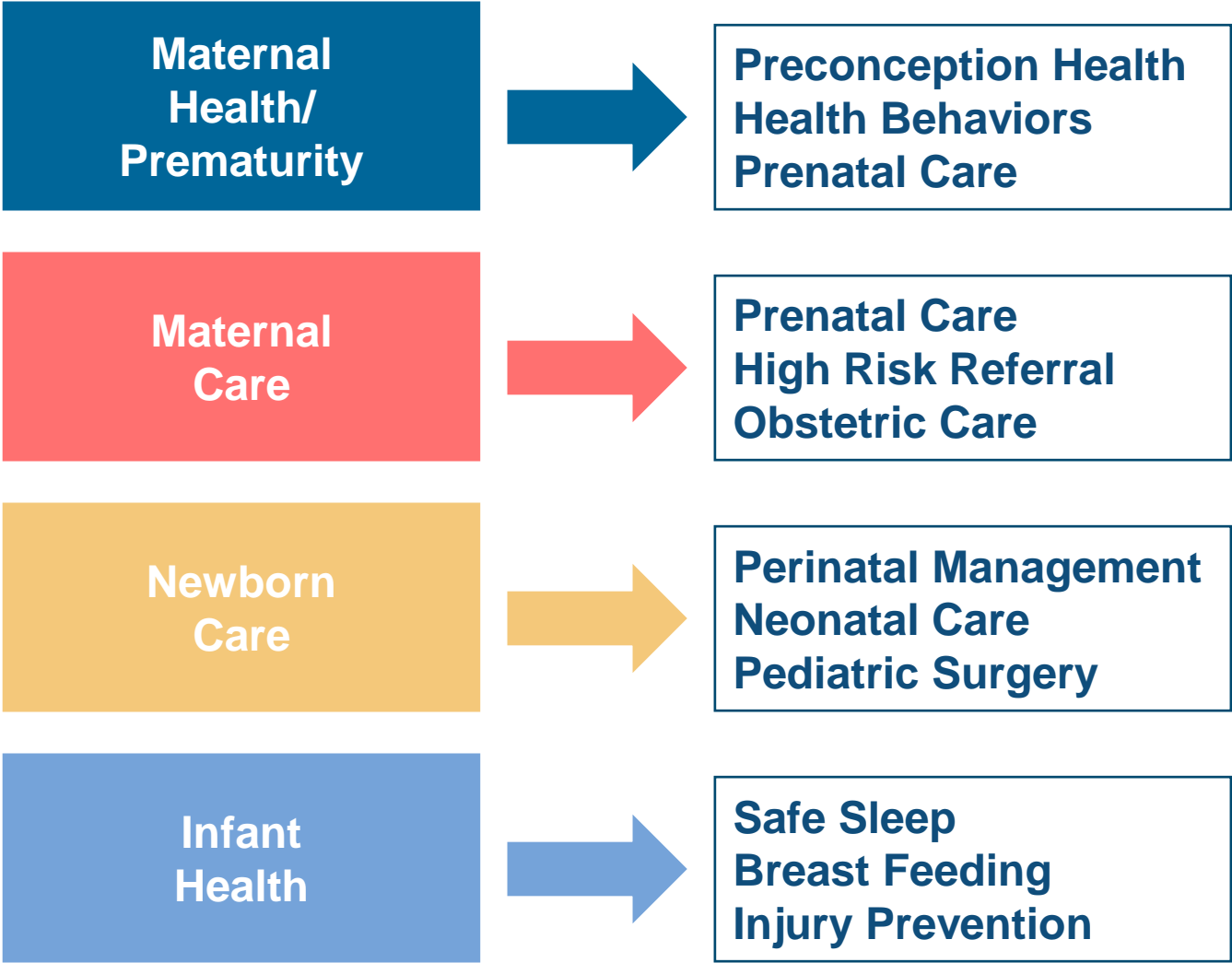


# Thinking Upstream About Prematurity Perinatal Periods of Risk (PPOR)

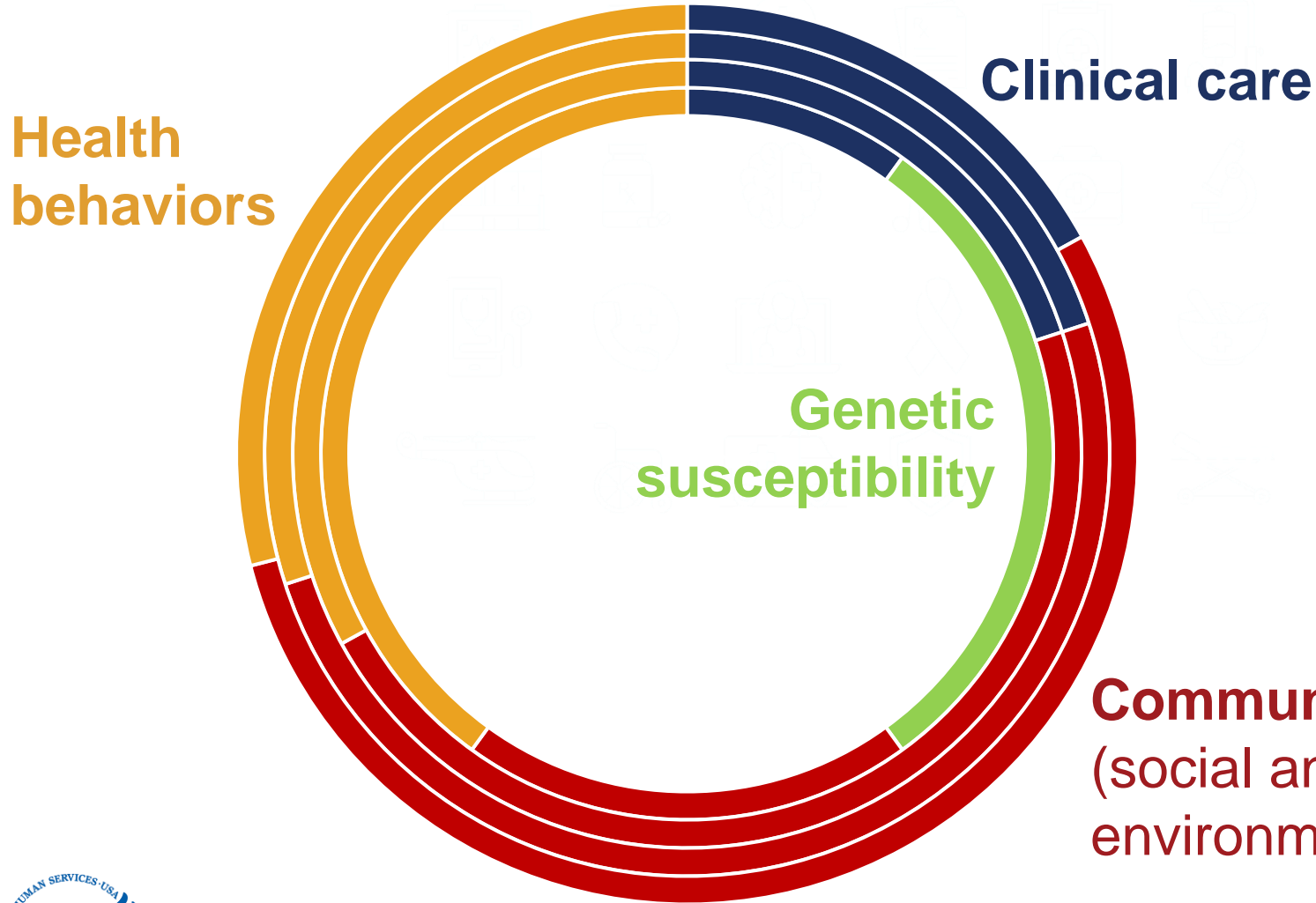




# Opportunities for Intervention



# What Determines Health?



Across four studies, clinical care accounted for only 10-20% of overall health

**Community and environment**  
(social and economic factors, physical environment, exposures)

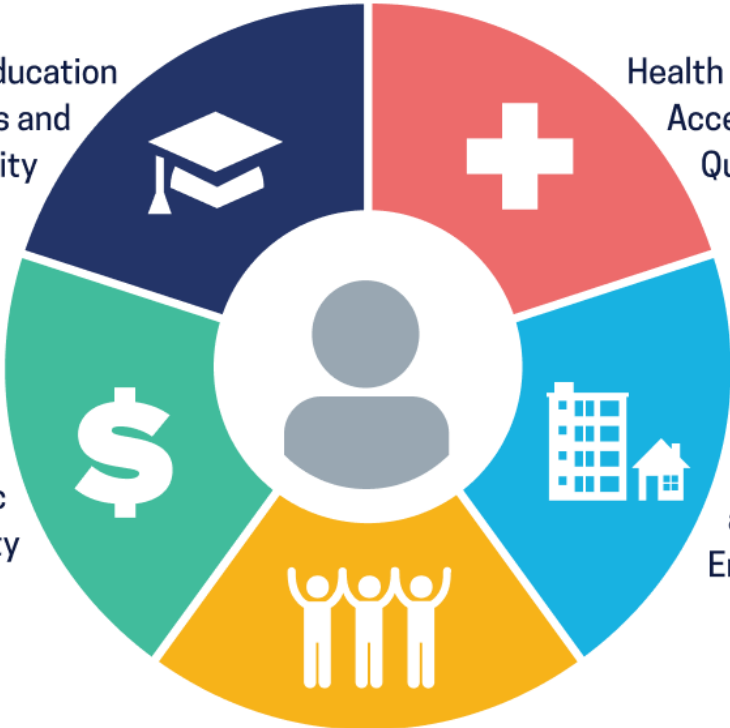
# Structural and Social Determinants of Health

**STRUCTURAL DETERMINANTS**

GOVERNING PROCESSES

ECONOMIC AND SOCIAL POLICIES

RACISM, DISCRIMINATION, BIAS, AND SEGREGATION



**EXPERIENCE OF SOCIAL DETERMINANTS**

INCOME/POVERTY/WEALTH

EDUCATION

EMPLOYMENT

TRANSPORTATION

HOUSING

FOOD SECURITY

EXPOSURE TO TOXINS

HEALTH INSURANCE

DISTANCE TO SERVICES



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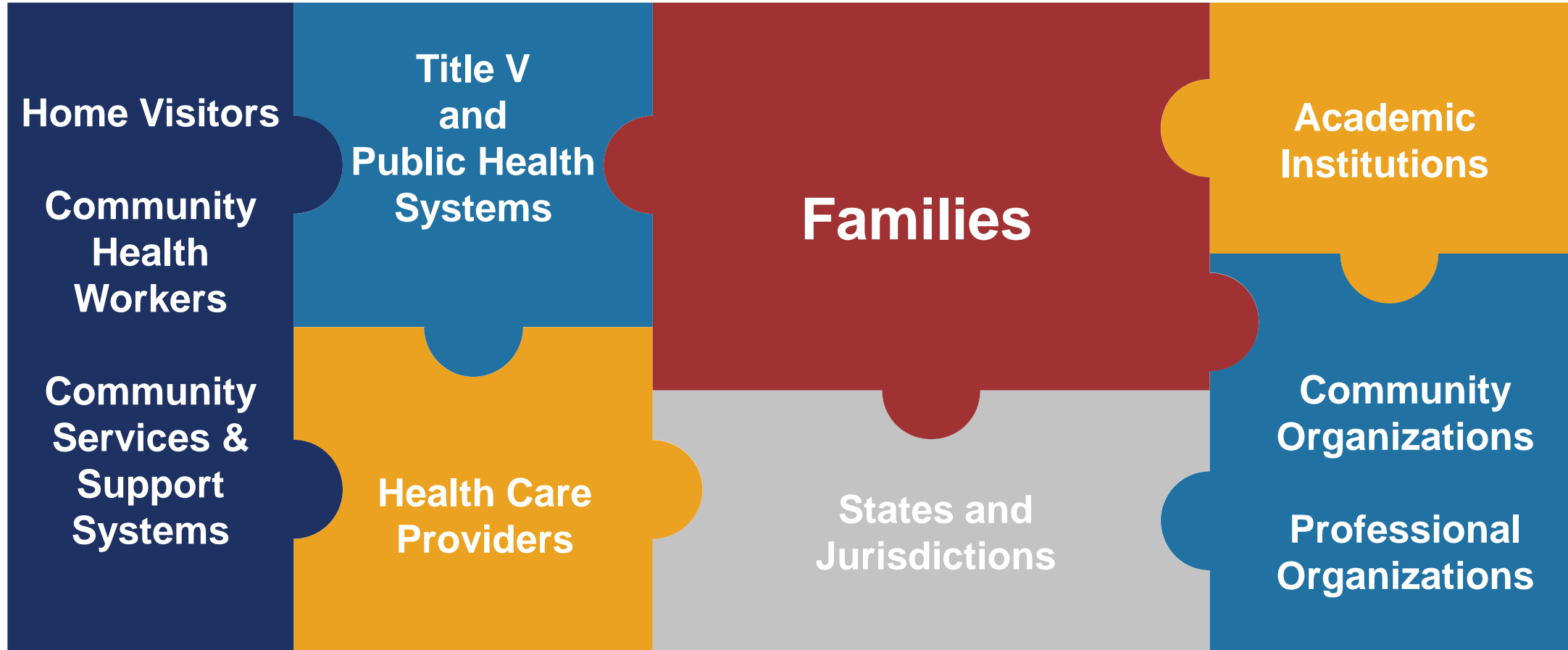
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# Working Together



# MCHB Maternal and Infant Health Investments

- Healthy Start
- Maternal, Infant, and Early Childhood Home Visiting
- National Maternal Mental Health Hotline
- Title V MCH Block Grant
- Women's Preventive Services Initiative
- Bright Futures

Promotes **access** to health care services



- Alliance for Innovation on Maternal Health (AIM)
- AIM Capacity Program
- Integrated Maternal Health Services
- State Maternal Health Innovation Program
- Newborn Screening

Improves **quality** of care



- Healthy Start: Community-Based Doulas
- Minority Serving Institutions Research Collaborative
- Screening and Treatment for Maternal Mental Health and Substance Use Disorders (MMHSUD)

Strengthens the **workforce**



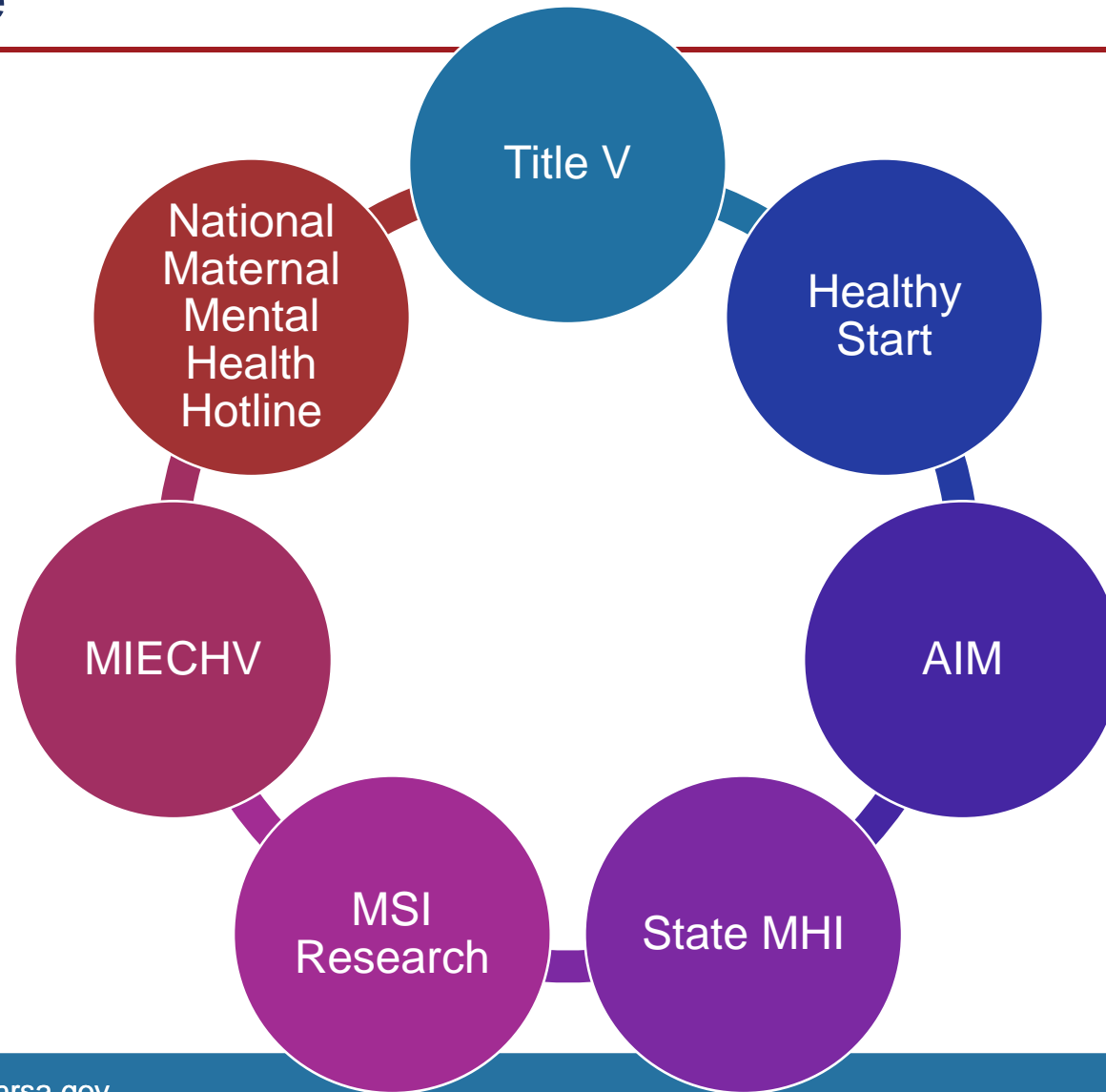
# HRSA Enhancing Maternal Health Initiative

- Launched in January 2024
- Brings together HRSA-funded organizations and individuals with lived experience from 12 states
- Develops new partnerships and collaborations in high-need jurisdictions to address maternal health disparities including:
  - Expanding access to maternal care
  - Growing the maternal care workforce
  - Supporting maternal mental health



# Example: Linking Maternal and Infant Health Investments Within a State

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# Opportunities to Improve Maternal and Infant Health

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# National Maternal Mental Health Hotline

Free, confidential, 24/7 mental health support for moms and their families before, during, and after pregnancy. English- and Spanish-speaking counselors are available. Interpreter services supporting 60 other languages.



Learn more at <https://mchb.hrsa.gov>

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# Learn More About the Hotline



For support, understanding, and resources, CALL OR TEXT 1-833-852-6262 (1-833-TLC-MAMA)



Free Promotional Material Available

Learn more at <https://mchb.hrsa.gov>



# Alliance for Innovation on Maternal Health (AIM)

A quality improvement initiative to support best practices that make birth safer, improve maternal health outcomes and save lives.



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# AIM Safety Bundles

- Obstetric Hemorrhage
- Severe Hypertension in Pregnancy
- Safe Reduction of Primary Cesarean Birth
- Cardiac Conditions in Obstetric Care
- Care for Pregnant and Postpartum People with Substance Use Disorder
- Perinatal Mental Health Conditions
- Postpartum Discharge Transition
- Sepsis in Obstetrical Care



Implemented in nearly 2,000 birthing facilities across the United States



# Examples of AIM Impacts

OUD = opioid use disorder  
SUD = substance use disorder

\*Among facilities participating in AIM safety bundle implementation



**Alaska**

**22% increase in timely care** for pregnant people with severe hypertension



**Georgia**

**96% increase** in hemorrhage carts



**Illinois**

Pregnant or postpartum people with OUD connected to medication for OUD by delivery discharge **increased from 41% to 76%**



**New York**

Participating facilities with a universal screening protocol for SUD **increased from 33% to 86%**

# Readiness for Obstetrical Emergencies

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## AIM Obstetric Emergency Readiness Resource Kit

Resources for teams in healthcare settings that may not typically provide obstetrics services



# Preventing Congenital Syphilis

Congenital syphilis cases are increasing across the country.  
These cases are preventable.



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 **HRSA**  
Maternal & Child Health



# Congenital Syphilis

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- Congenital syphilis in the U.S. has increased more than 10-fold since 2012
- About 90% of cases are preventable with timely testing and treatment
- In almost 40% of cases, mothers received no prenatal care during pregnancy



# Congenital Syphilis- How You Can Help

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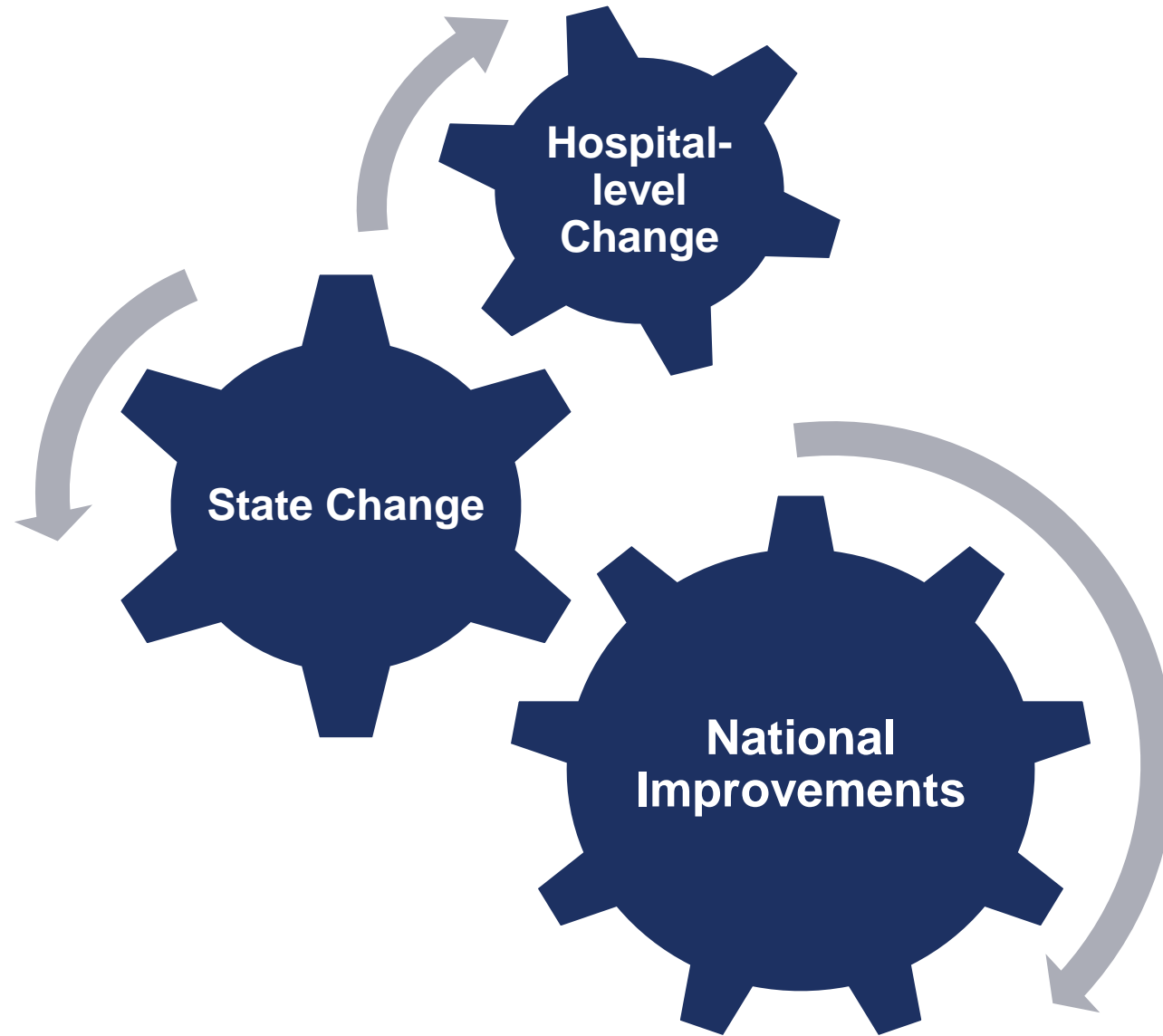
- Partner and collaborate with organizations that provide care to pregnant women
- Share the importance of:
  - Screenings before pregnancy, first prenatal visit, 3<sup>rd</sup> trimester, and delivery (depending on county rates)
  - Timely treatment for positive cases
- Visit [CDC site](#) to see if your county is above the Healthy People 2030 target (4.6 per 100,000 women)



# Summary

- We have significant opportunities to improve infant and maternal health in Georgia and the rest of the United States
- Clinical care is important. It is necessary for health, but not sufficient. Upstream thinking is important to improve overall health outcomes and reduce disparities.
- None of us can do this alone- improving infant and maternal health will take all of us working together





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# Contact Information

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Health Resources and Services Administration (HRSA)

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# References/Notes

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## **Slide 6**

United States. Children's Bureau , Meyer, Herman H. B. (Herman Henry Bernard), 1864-1937 , Thompson, Laura A. (Laura Amelia), 1877-1949 and Library of Congress. Division of Bibliography. *List of References on Child Labor, Industrial Series No. 3, Bureau Publication No. 18* , Washington, D.C: Government Printing Office, 1916, <https://fraser.stlouisfed.org/title/8311>, accessed on April 10, 2024.

## **Slide 7**

National Vital Statistics System, data from 1915-1932 are a subset from states with birth registration, which became 100% by 1933

- 1915-1993 [https://www.cdc.gov/nchs/data/vsus/mort93\\_2a.pdf](https://www.cdc.gov/nchs/data/vsus/mort93_2a.pdf)
- 1994-2003 [https://www.cdc.gov/nchs/data/series/sr\\_03/sr03\\_033.pdf](https://www.cdc.gov/nchs/data/series/sr_03/sr03_033.pdf)
- 2018-2021 <https://wonder.cdc.gov/controller/saved/D158/D354F709>

## **Slide 8**

Source: Pregnancy Mortality Surveillance System | Maternal and Infant Health, 2017-2019 | CDC. Available at: <https://www.cdc.gov/reproductivehealth/maternal-mortality/pregnancy-mortality-surveillance-system.htm>

## **Slide 9-10**

Source: Pregnancy-Related Deaths: Data from Maternal Mortality Review Committees in 36 US States, 2017–2019 | CDC. Available at: <https://www.cdc.gov/reproductivehealth/maternal-mortality/erase-mm/data-mmrc.html>

# References/Notes

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## **Slide 11-12**

Source: Georgia Department of Public Health, 2023. Maternal Mortality Report, 2018-2020.

Available at: <https://dph.georgia.gov/document/document/maternal-mortality-2018-2020-case-review>

## **Slide 13**

Data Source: Agency for Healthcare Research and Quality. Healthcare Cost and Utilization project (HCUP) – State Inpatient Database (SID).

Maternal and Child Health Bureau. Federally Available Data (FAD) Resource Document. February 08, 2024; Rockville, MD: Health Resources and Services Administration. Available at: <https://mchb.tvisdata.hrsa.gov/Home/FADDocuments>

## **Slide 14**

National Vital Statistics System, data from 1915-1932 are a subset from states with birth registration, which became 100% by 1933

- 1915-1993: [https://www.cdc.gov/nchs/data/vsus/mort93\\_2a.pdf](https://www.cdc.gov/nchs/data/vsus/mort93_2a.pdf)
- 1994-2015: [https://www.cdc.gov/nchs/data/nvsr/nvsr66/nvsr66\\_06.pdf](https://www.cdc.gov/nchs/data/nvsr/nvsr66/nvsr66_06.pdf)
- 2016-2021: <https://wonder.cdc.gov/Deaths-by-Underlying-Cause.html> for deaths; <https://wonder.cdc.gov/nativity.html> for births

## **Slides 15-18**

Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Linked Birth / Infant Deaths on CDC WONDER Online Database. Data are from the Linked Birth / Infant Deaths Records 2007-2021, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Accessed at <http://wonder.cdc.gov/lbd-current.html>

## **Slide 21**

Adapted from the Life Course Toolkit by CityMatCH. Available at: <http://www.citymatch.org/projects/mch-life-course-toolbox>. Based on: Lu, M.C. & Halfon, N. Matern Child Health J (2003) 7:13.



# References/Notes

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## **Slide 22**

Sources: 1) Health data for girls—National Survey of Children’s Health, 2022. Available at: [www.childhealthdata.org](http://www.childhealthdata.org). Last accessed 3/24/2024. 2) Health data for women 18-44—Behavioral Risk Factor Surveillance System, 2021. Available at: <https://www.cdc.gov/BRFSS/>. Last accessed 3/24/2024.

## **Slide 23**

Photo Source: Monroe Carell Jr. Children’s Hospital at Vanderbilt. Used with permission.

## **Slide 24**

Source: Peck MG, Sappenfield WM, Skala J. Perinatal Periods of Risk: A Community Approach for Using Data to Improve Women and Infants’ Health. Maternal and Child Health Journal. 2010. 14: 864–874.

## **Slide 26**

Adapted from: 1)McGinnis JM, Williams-Russo P, Knickman JR. The case for more active policy attention to health promotion. Health Aff. 2002; 21(2):78-93. 2)Remington PL, Catlin BB, Gennusko KP. The County Health Rankings: rationale and methods. Popul Health Metr. 2014; 13:11. 3)American’s Health Rankings. [www.americashealthrankings.org](http://www.americashealthrankings.org). 4)Park H et al. Relative Contributions of a Set of Health Factors to Selected Health Outcomes Am J Prev Med 2015;49(6):961–969..

## **Slide 27**

Graphic Source: Healthy People 2030, U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Retrieved 02/11/2021, from <https://health.gov/healthypeople/objectives-and-data/social-determinants-health>