



Infant Mortality and Prematurity in Ohio: from state data and action to local data and action

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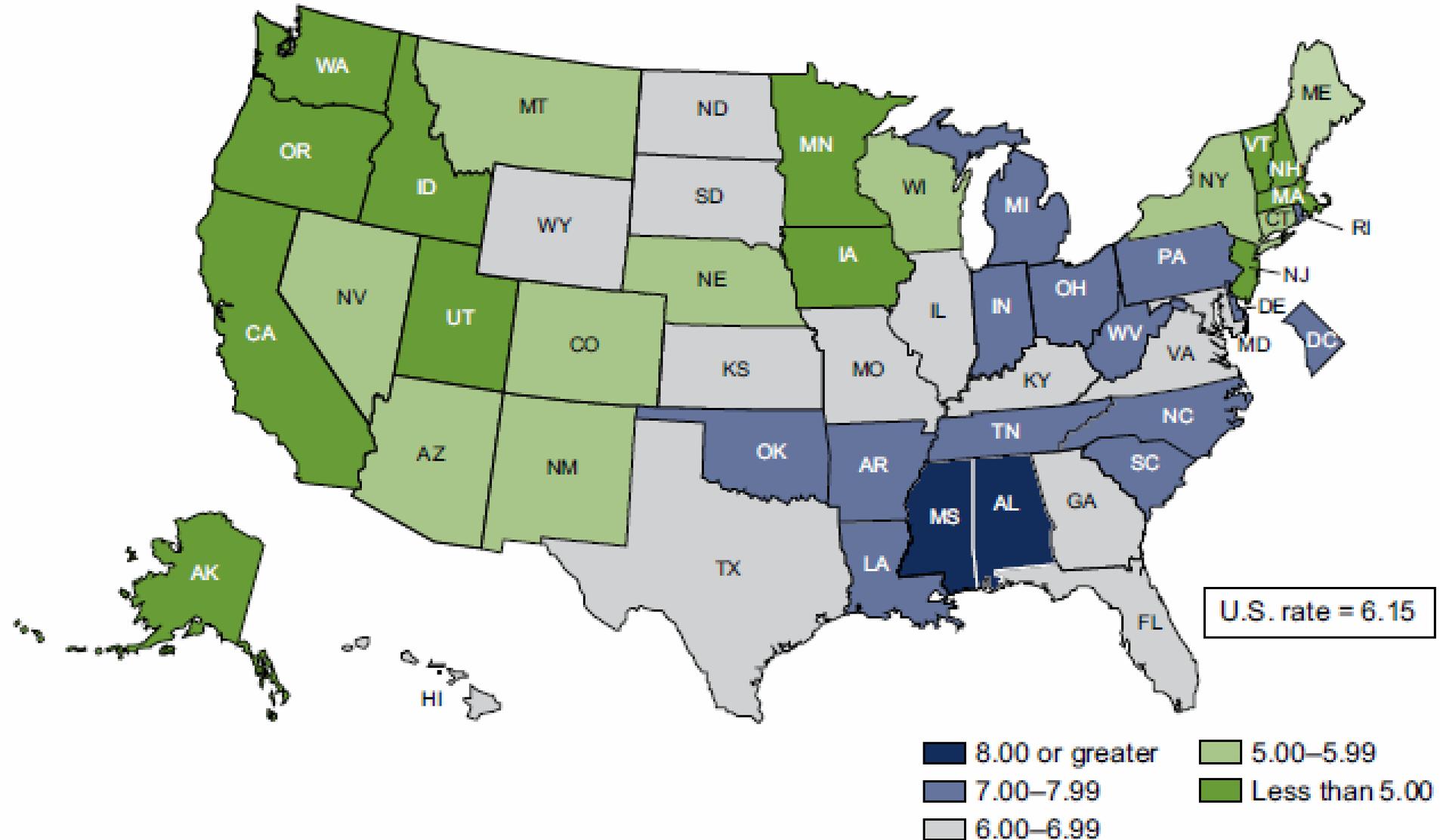
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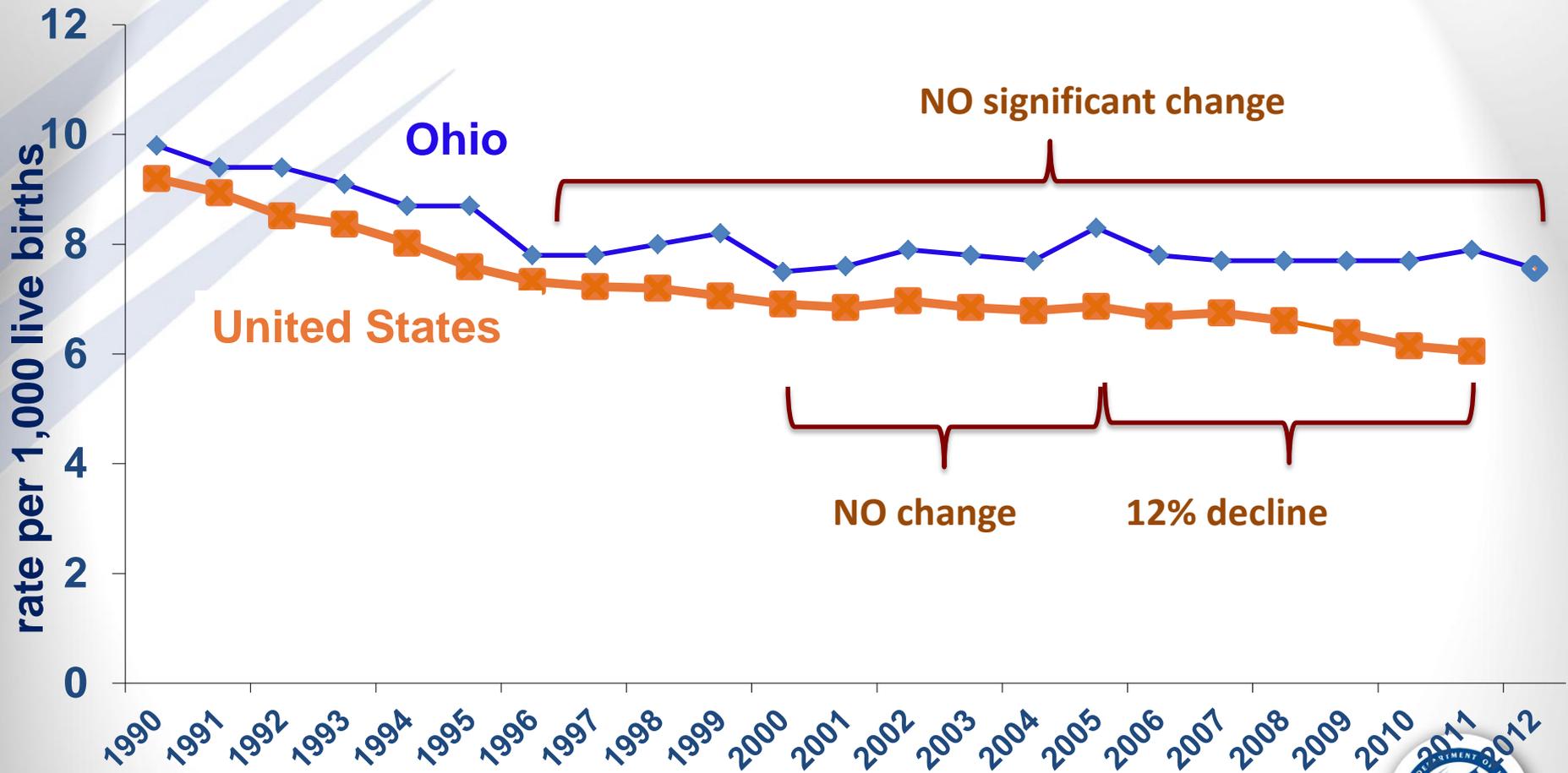
INFANT MORTALITY



Infant mortality rates by state, 2010



Infant mortality rates, Ohio & US, 1990-2012



Source: Office of Vital Statistics, Ohio Department of Health *2012 data preliminary
 NCHS, *US 2011 data preliminary

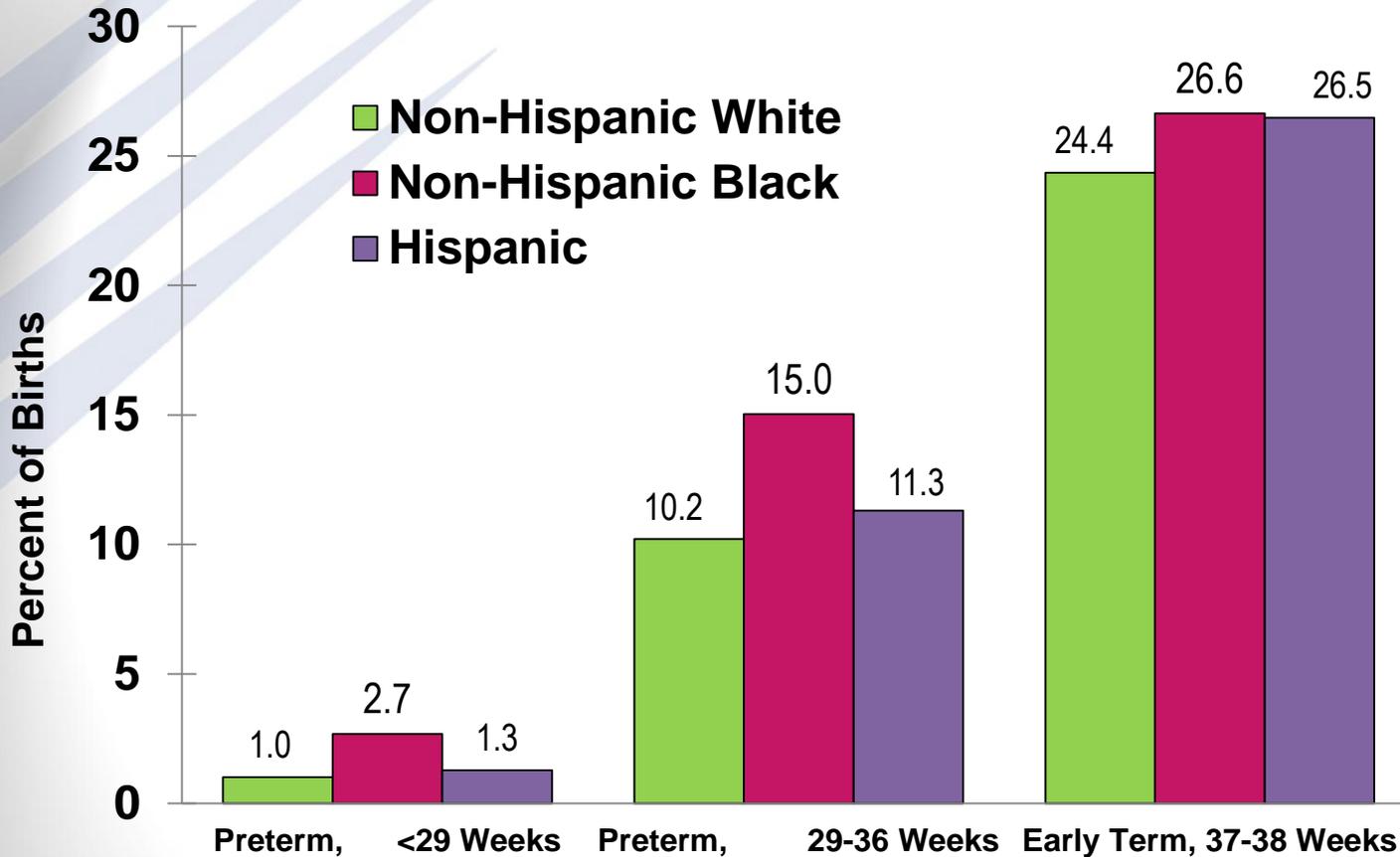


PREMATURITY and LOW BIRTH WEIGHT

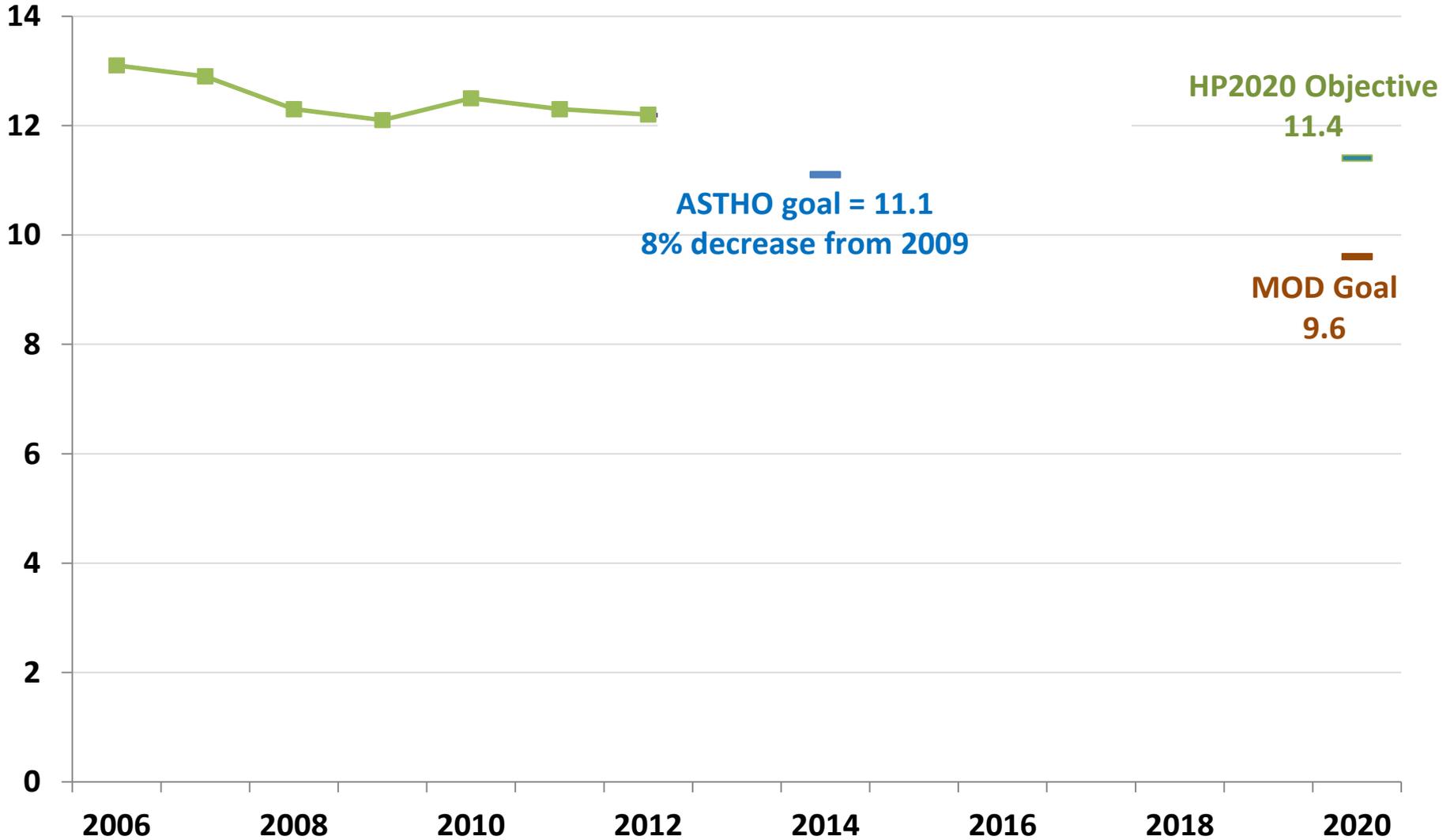
March of Dimes
October 24, 2013

Columbus, Ohio

Preterm and Early Term Births, by Race/Ethnicity, Ohio, 2010-2011

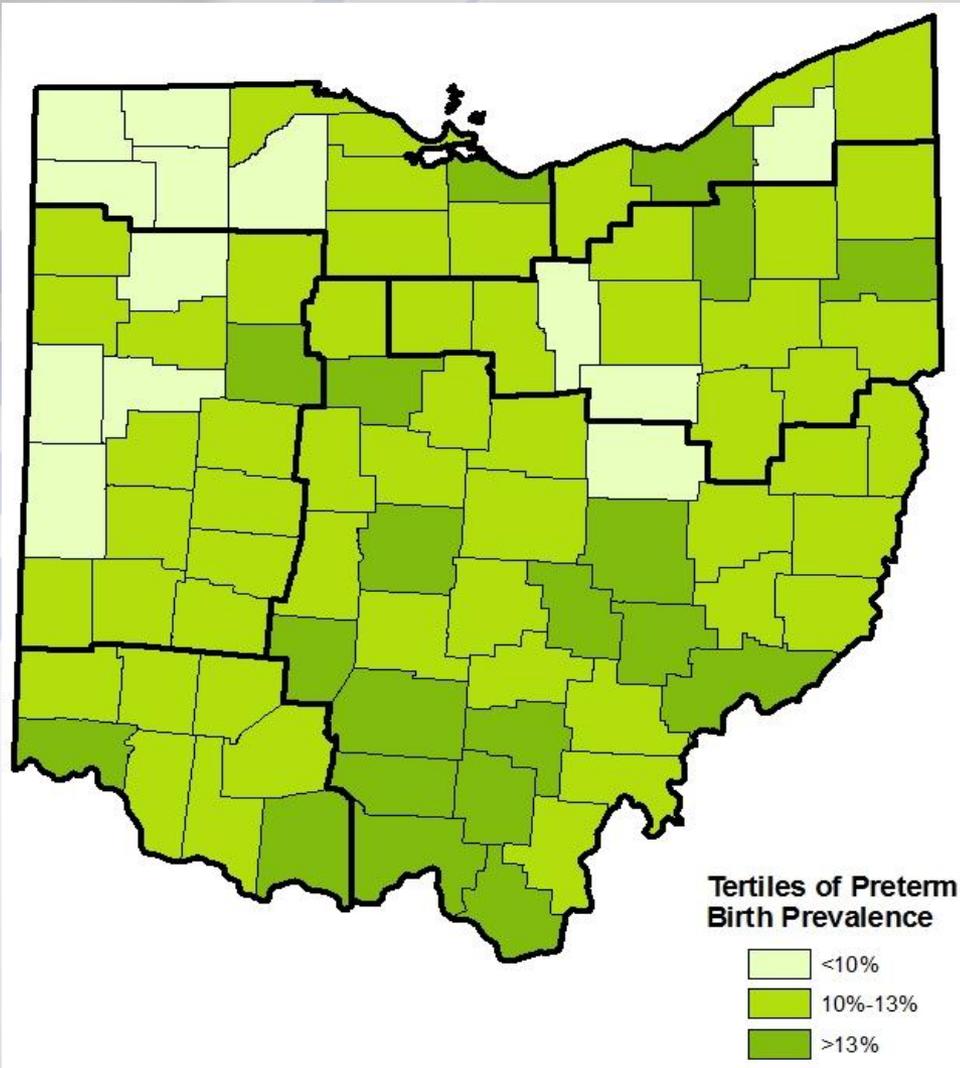


Preterm Births— Ohio, 2006-12 and related goals

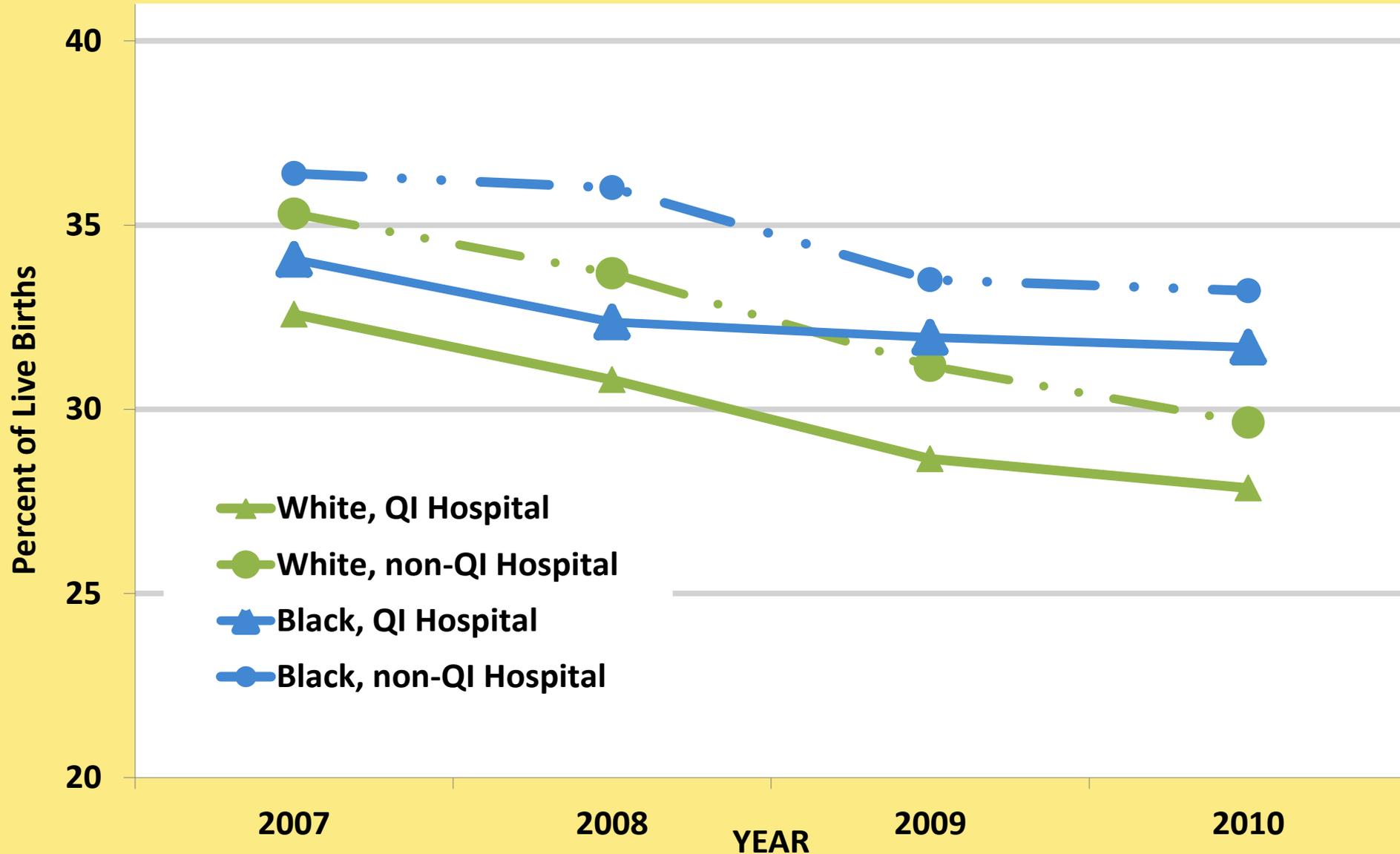


Data Source: Ohio Vital Statistics

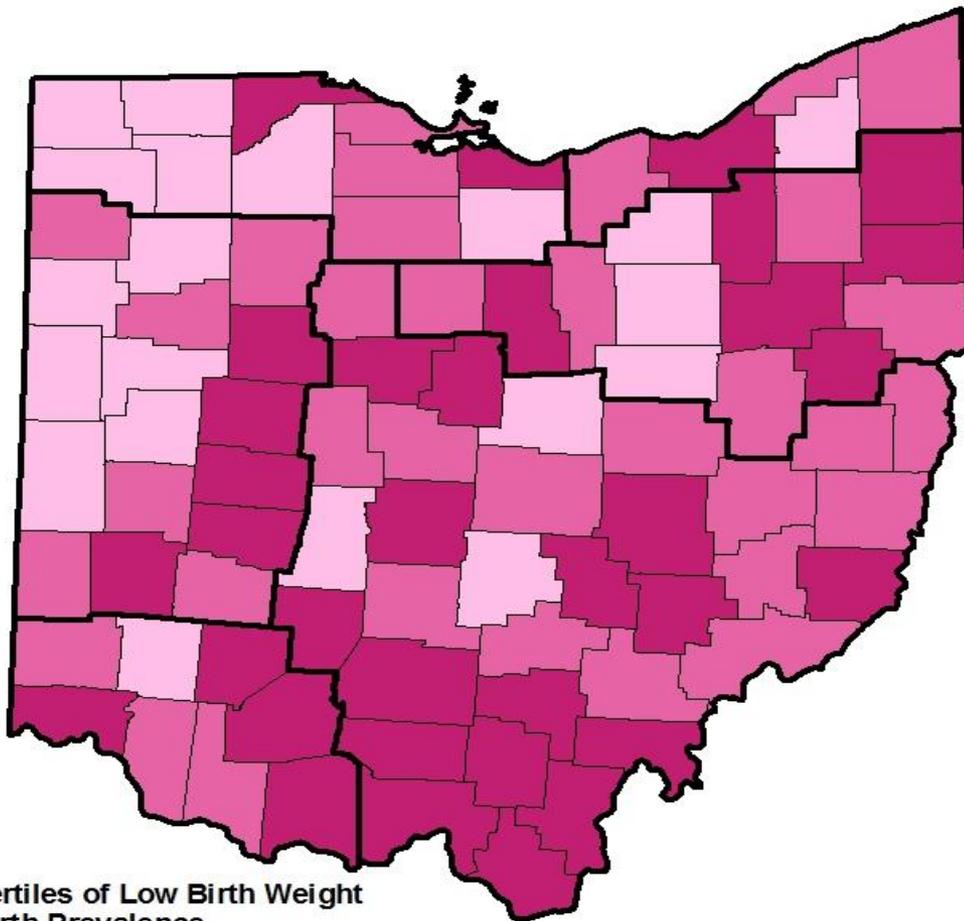
Percent of Preterm Births by County, 2008-2011



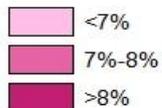
Near-Term Births (36-39 wks gestation), by Race and Delivery Hospital OPQC Participation— Ohio, 2007-10



Percent of Low Birth Weight Births by County, 2008-2011



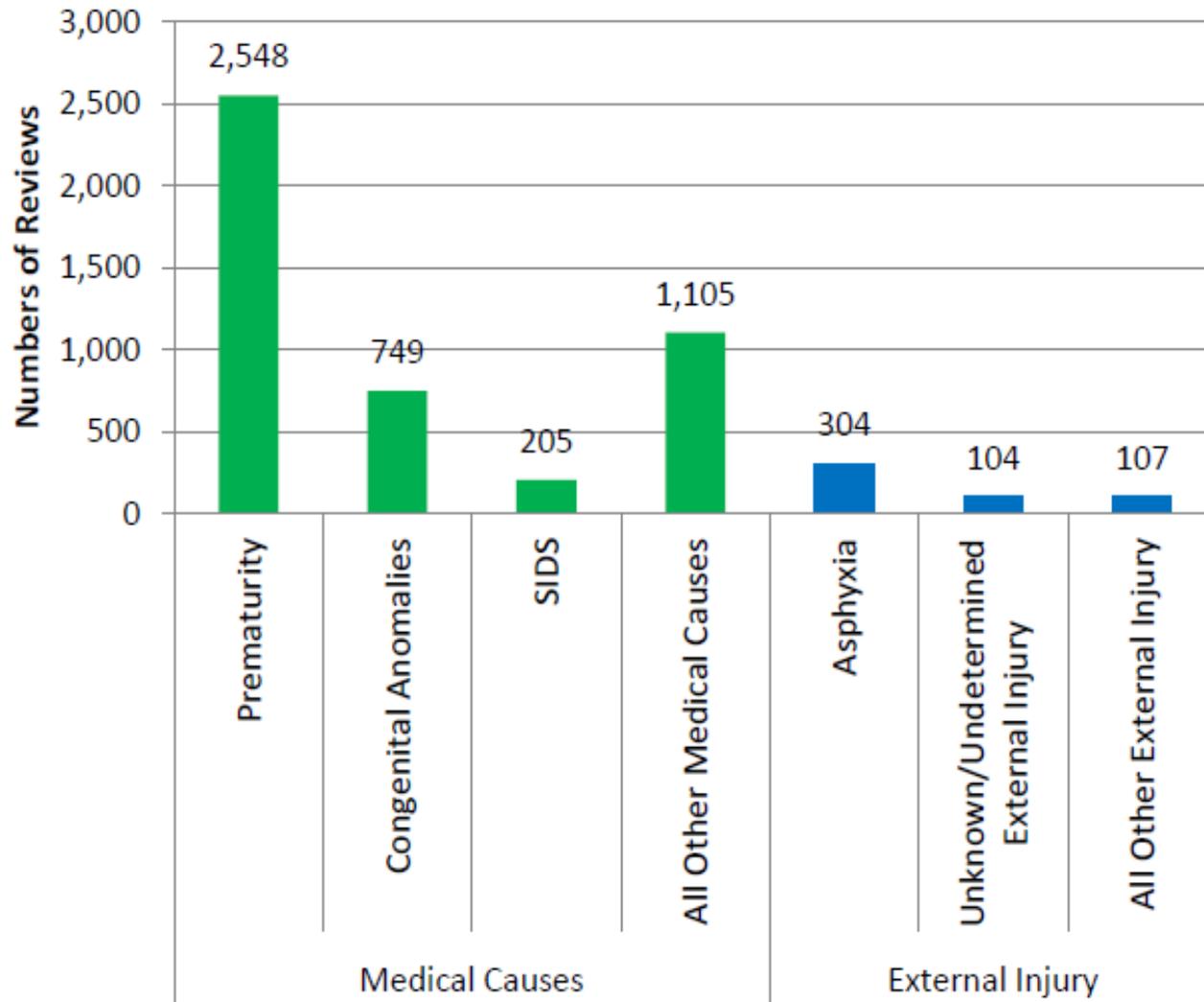
Tertiles of Low Birth Weight Birth Prevalence





CAUSES OF INFANT MORTALITY

Reviews of Infant Deaths by Leading Cause of Death, 2007-2011

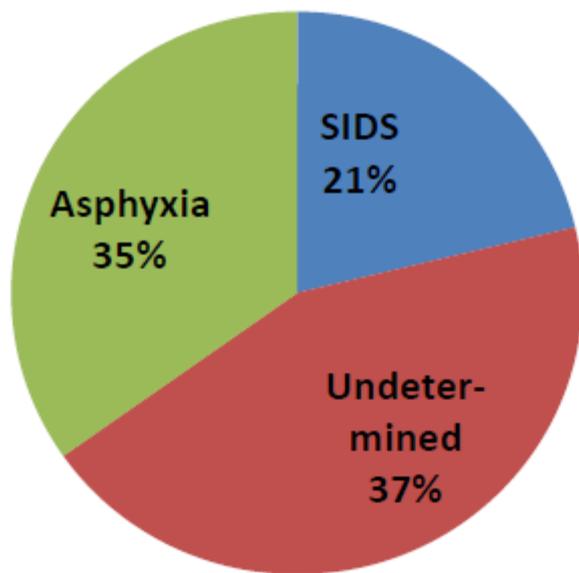


Source: Ohio Child Fatality Review
n = 5,418



Spotlight on sleep-related deaths

Sleep-related Deaths by Cause of Death, 2007-2011, N=819



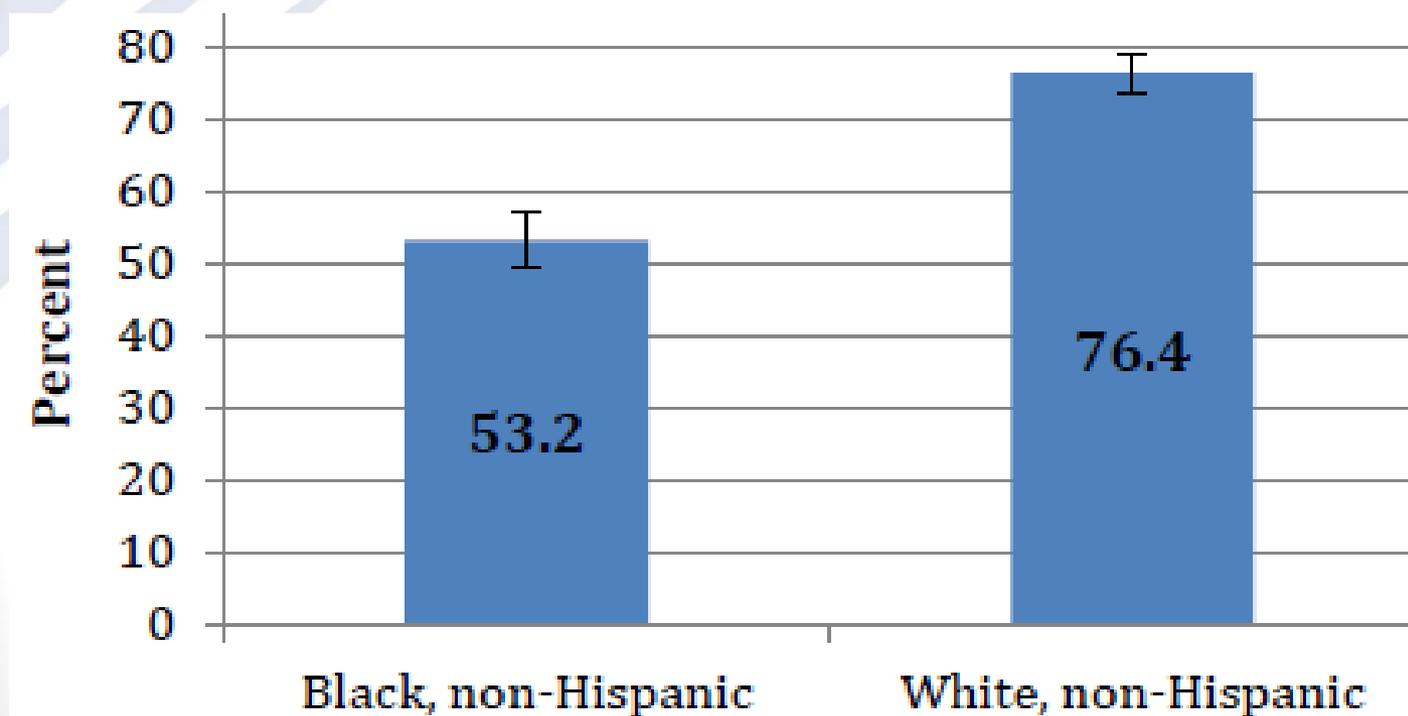
41% of infant deaths after 28 days

38% to black infants- disproportionate to the 15% of the population they represent

RISK FACTORS FOR INFANT MORTALITY

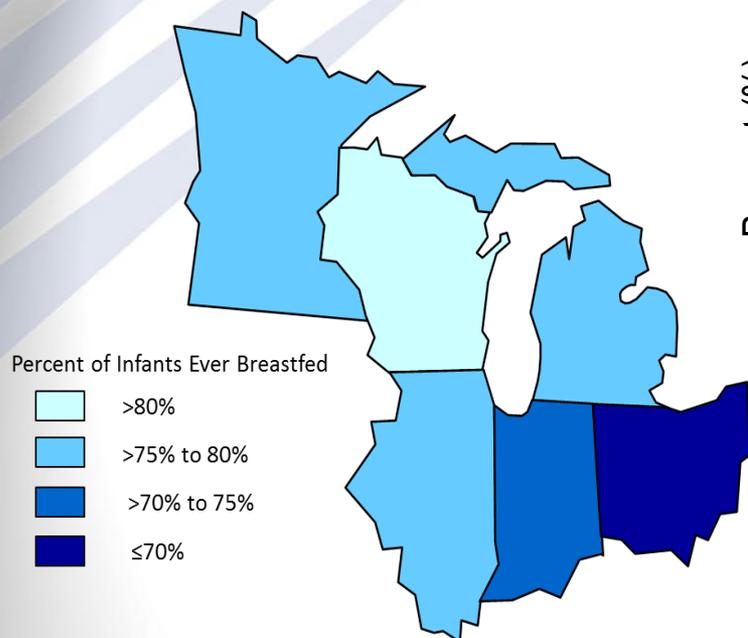


Mothers reporting placing their infant to sleep on back, by race

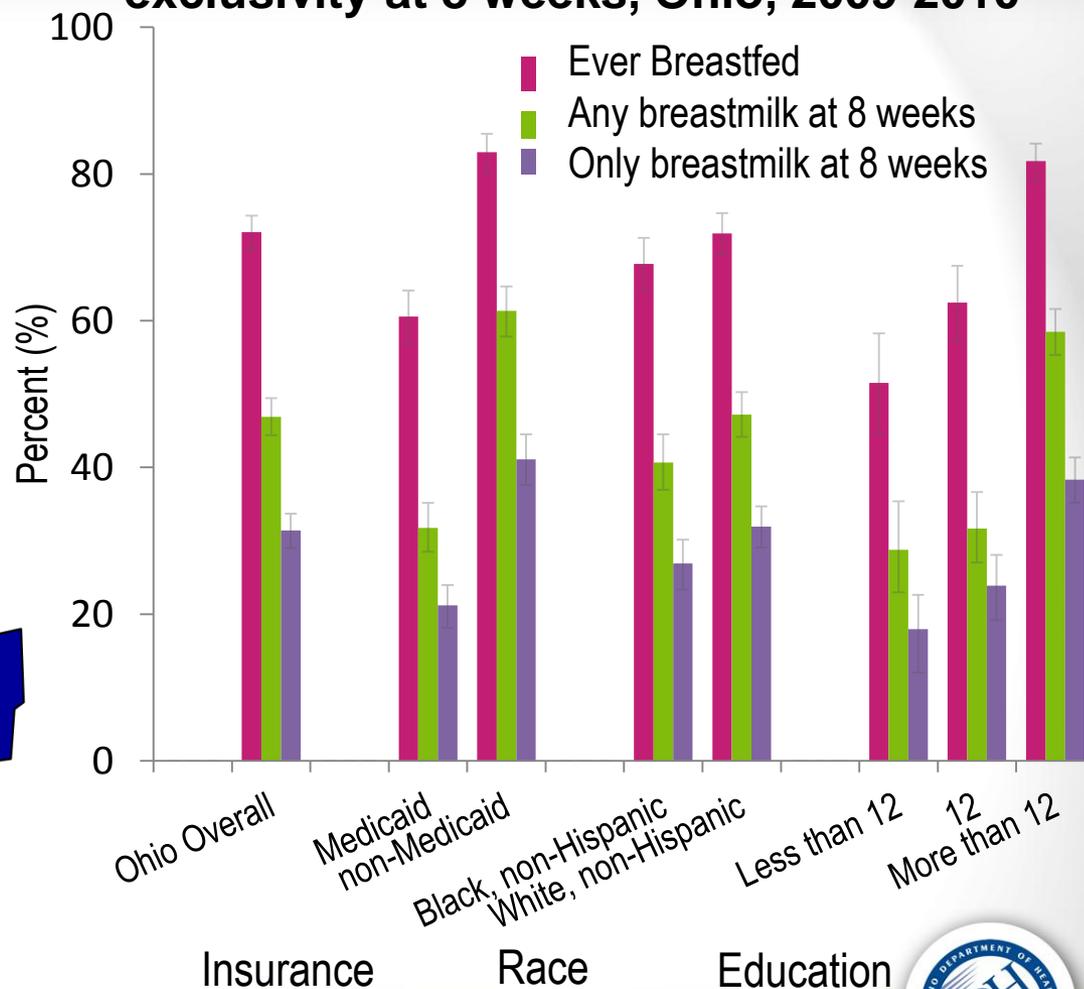


Breastfeeding

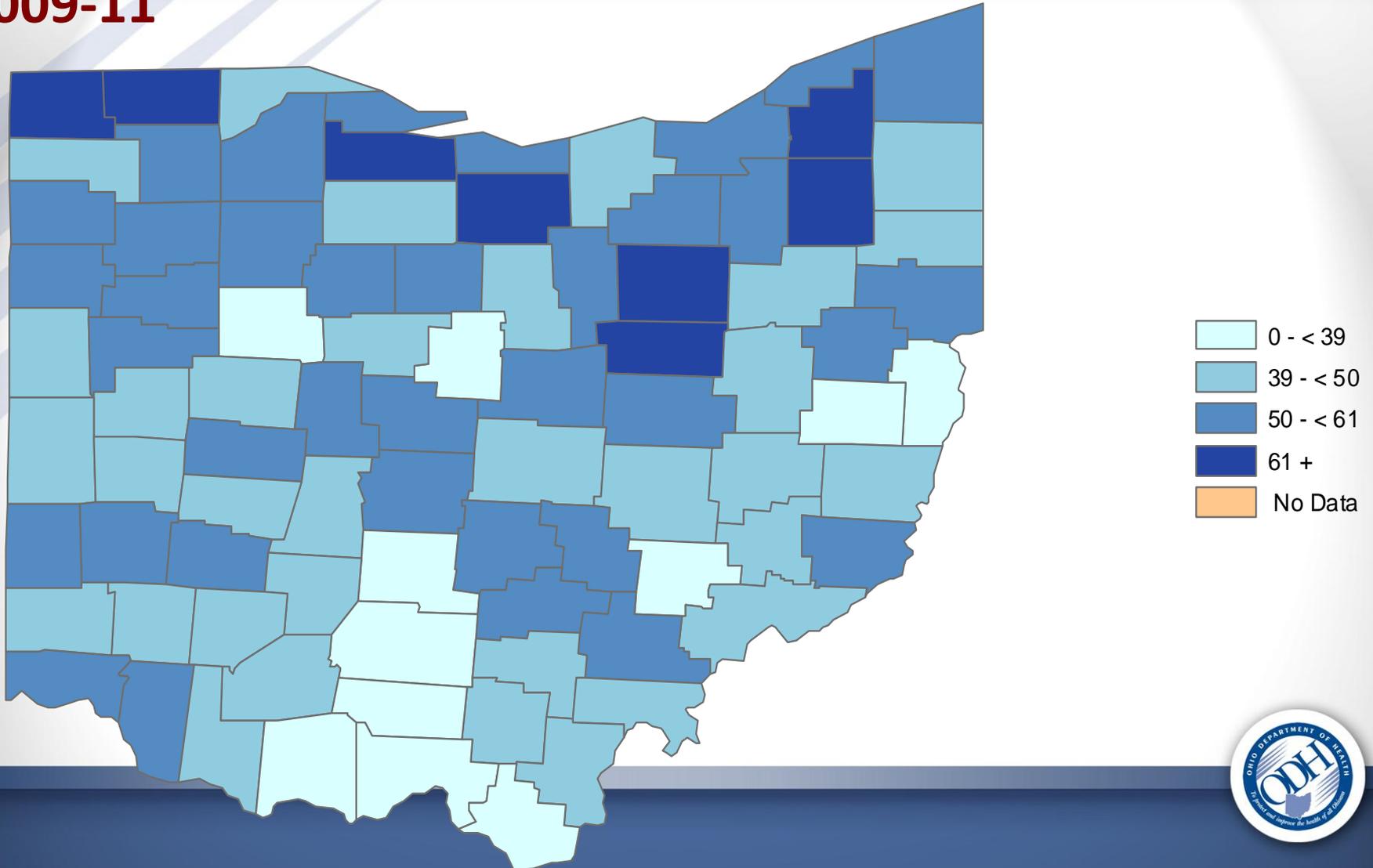
Breastfeeding Initiation in HRSA Region 5 States, 2008



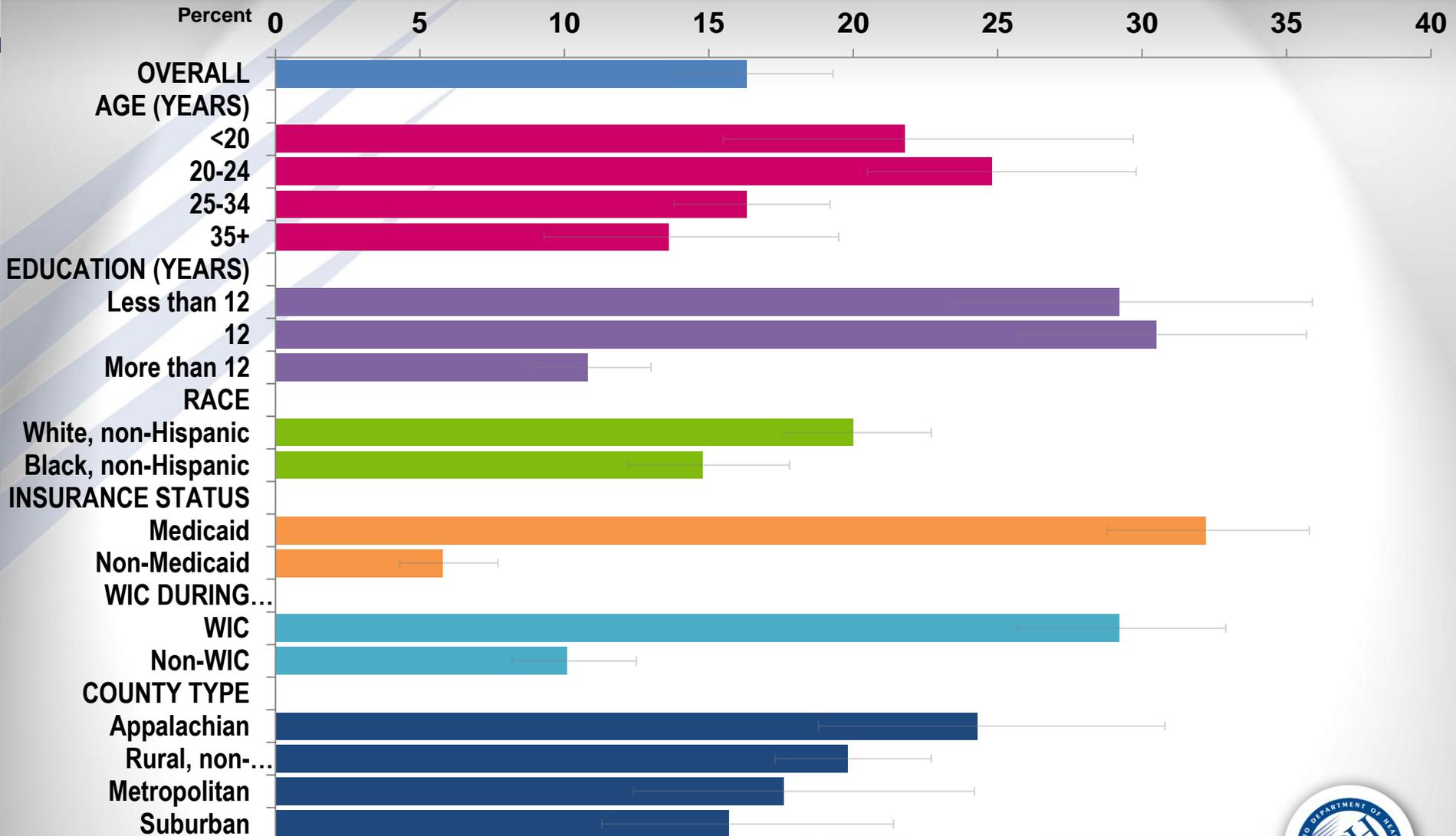
Breastfeeding initiation, duration and exclusivity at 8 weeks, Ohio, 2009-2010



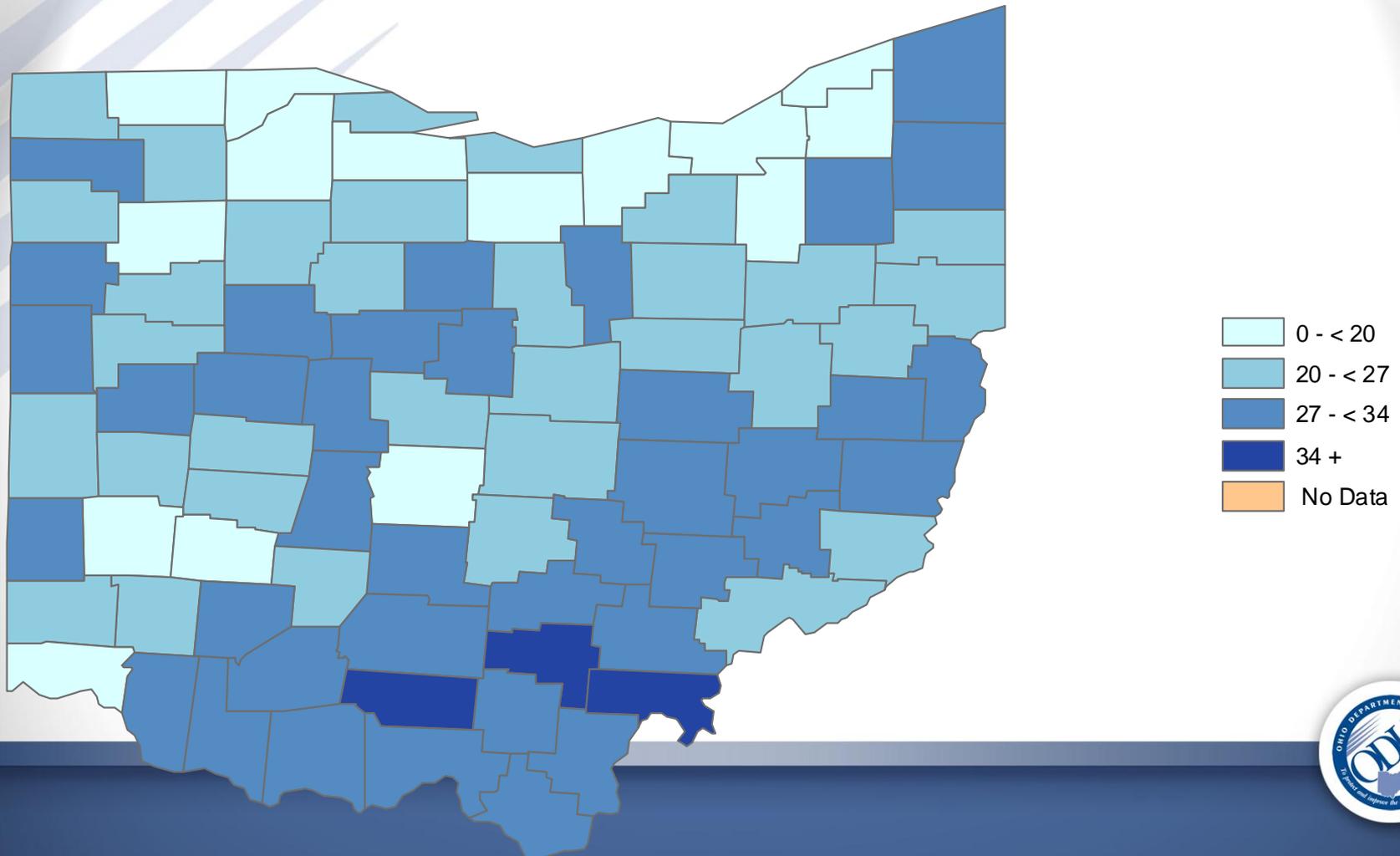
Prevalence of WIC infants ever breastfed, by county, 2009-11



Smoking During Pregnancy (last 3 mos), by Demographics, Ohio, 2009-10

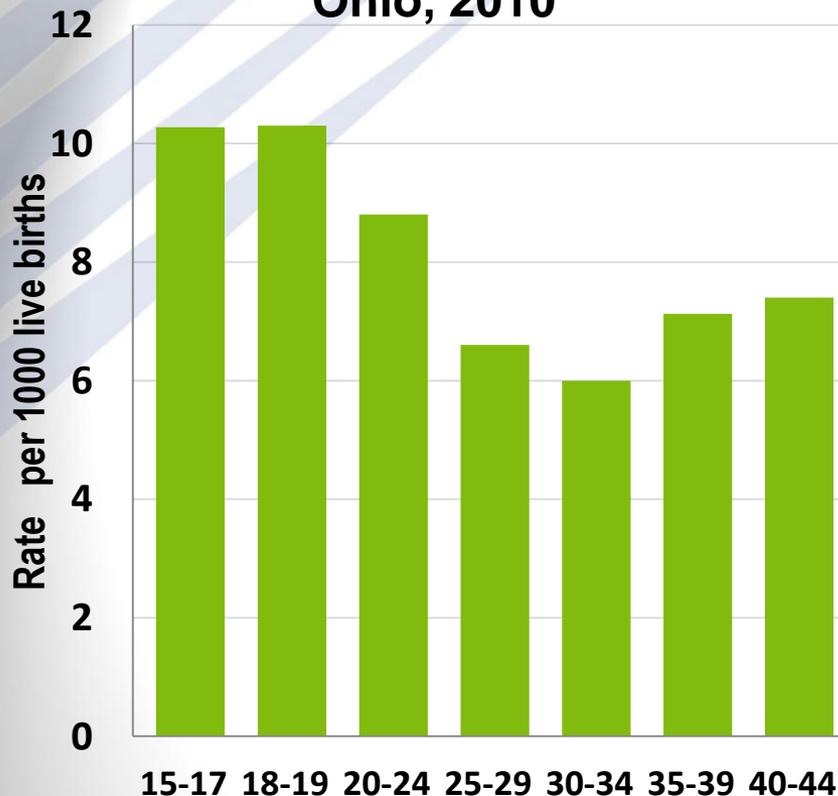


Prevalence of smoking during the last 3 months of pregnancy among WIC participants, by county, 2009-11

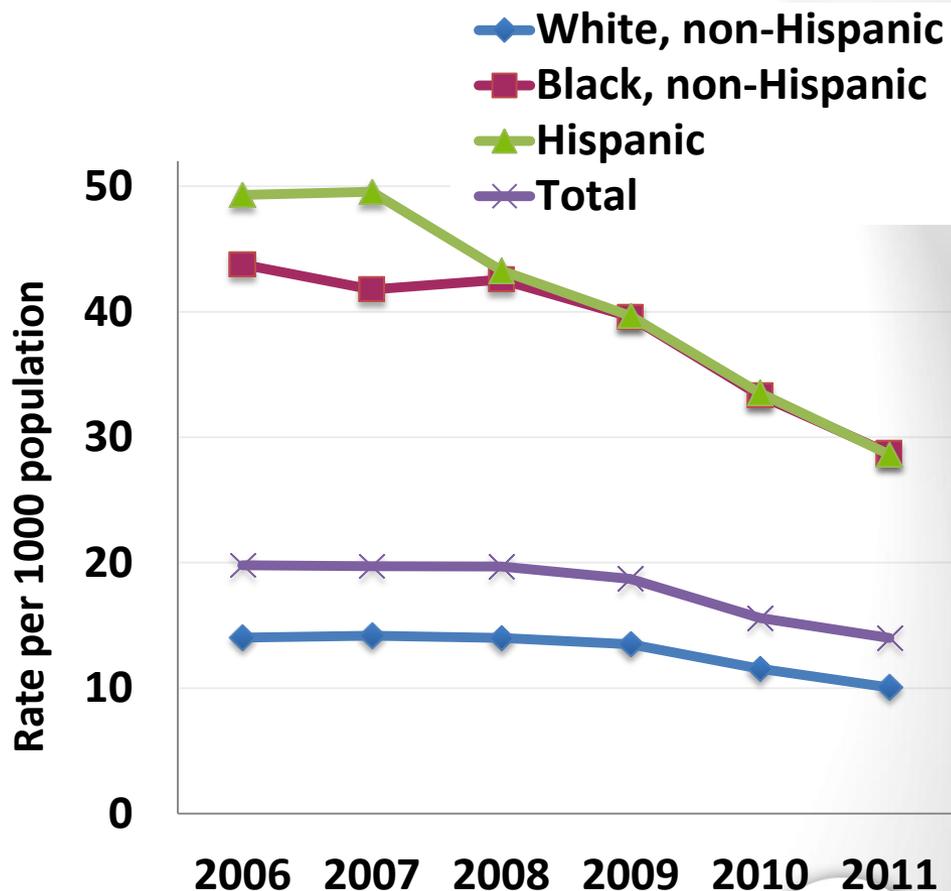


Teen Births

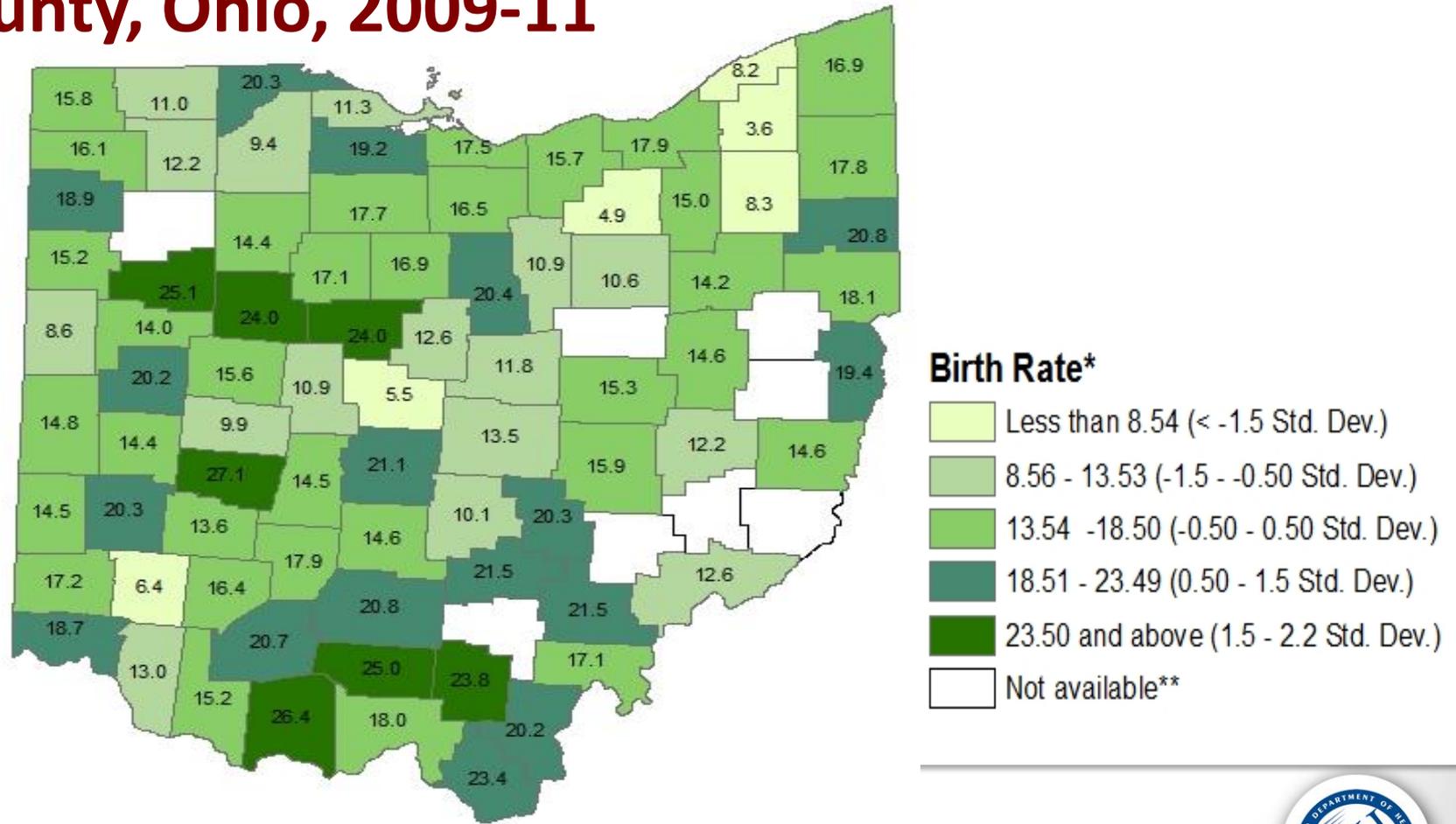
Infant Mortality, by Maternal Age, Ohio, 2010



Trends in Teen (15-17) Births, by Race and Ethnicity, Ohio, 2006-2011



Birth Rate to Adolescents aged 15-17 years, by County, Ohio, 2009-11



Birth Rates are per 1,000 females aged 15-17 years. **Rates based on less than 20 observations may be unstable and are not reported.

Teen Birth Rate for the State of Ohio 2009-2011: 16.3 per 1,000 females aged 15-17 years. The mean of the county birth rates on which the standard deviations were based (map key) was 16.0 per 1,000 females aged 15-17 years. Source: Ohio Department of Vital Health Statistics and U.S. census (2010)



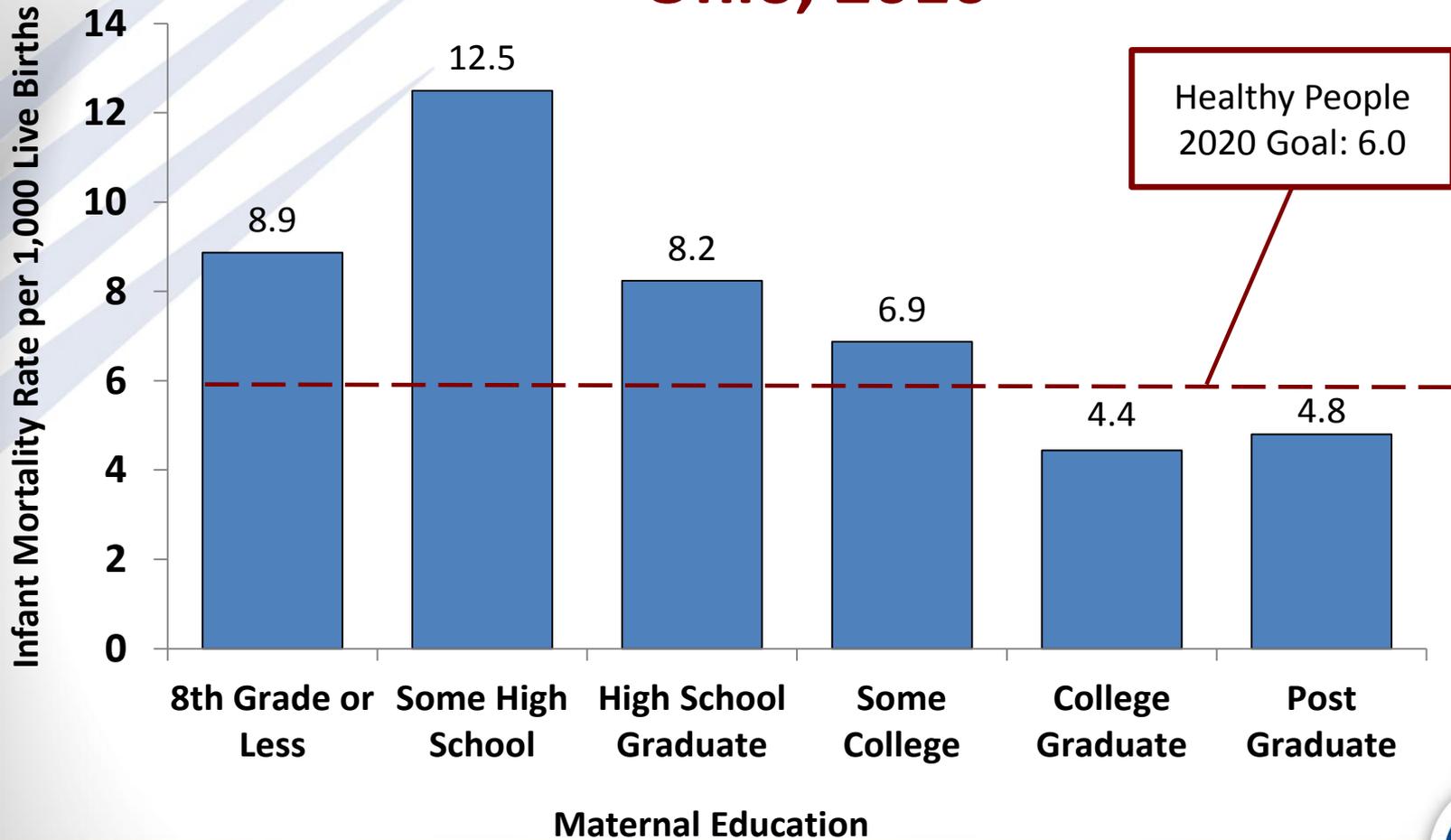
Social Determinants of Health

“The conditions in which people are **born**, grow, live, work and age. These circumstances are shaped by the distribution of **money**, **power**, and **resources** at global, national, and local levels. The social determinants of health are mostly responsible for **health inequities** – the unfair and avoidable differences in health status seen within and between countries”

The World Health Organization



Infant Mortality Rate by Maternal Education, Ohio, 2010



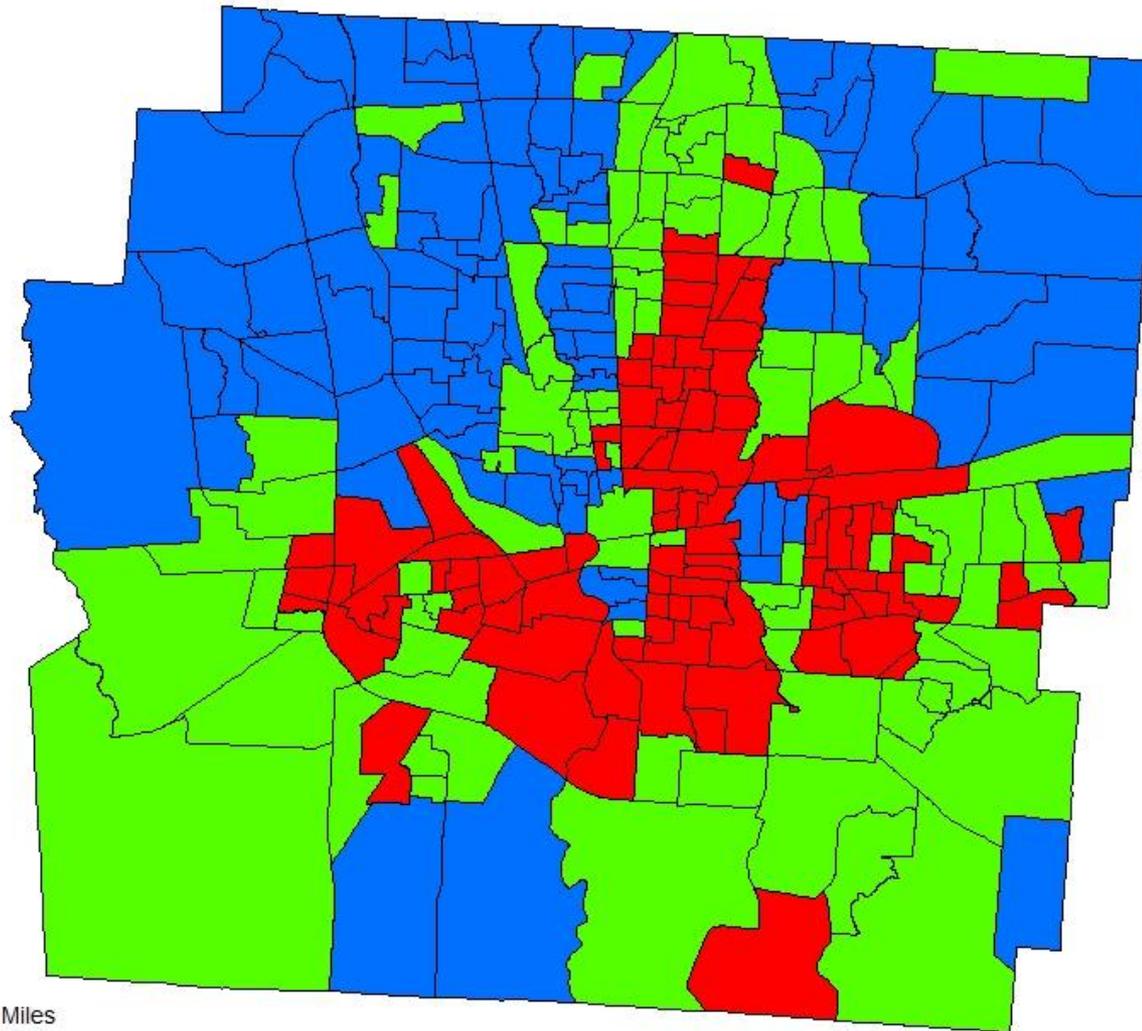
Socioeconomic Status* Analysis

- Tertiles of socioeconomic status (SES) were separately calculated using educational attainment and median household income at the census tract level of Ohio's three most populous counties: Cuyahoga, Franklin and Hamilton
- Measures of maternal and infant health were calculated to compare outcomes between the SES tertiles

* Socioeconomic status was defined by median household income and attainment of a bachelor degree by individuals 25 years of age or greater as defined by *Vila et al.*



Socioeconomic Tertiles¹ of Franklin County by Census Tract²



0 2 4 8 Miles

¹ Socioeconomic status was defined by median household income and attainment of a bachelor degree or higher by individuals 25 years of age or greater.

² 2010 U.S. Census Tracts.

Source: Socioeconomic status calculated from American Community Survey 5 year estimates (2007-2011). Data compiled July 30, 2013.
Prepared by: Richard Thomas, MPH, Epidemiology Section, Division of Family and Community Health Services,
Ohio Department of Health.

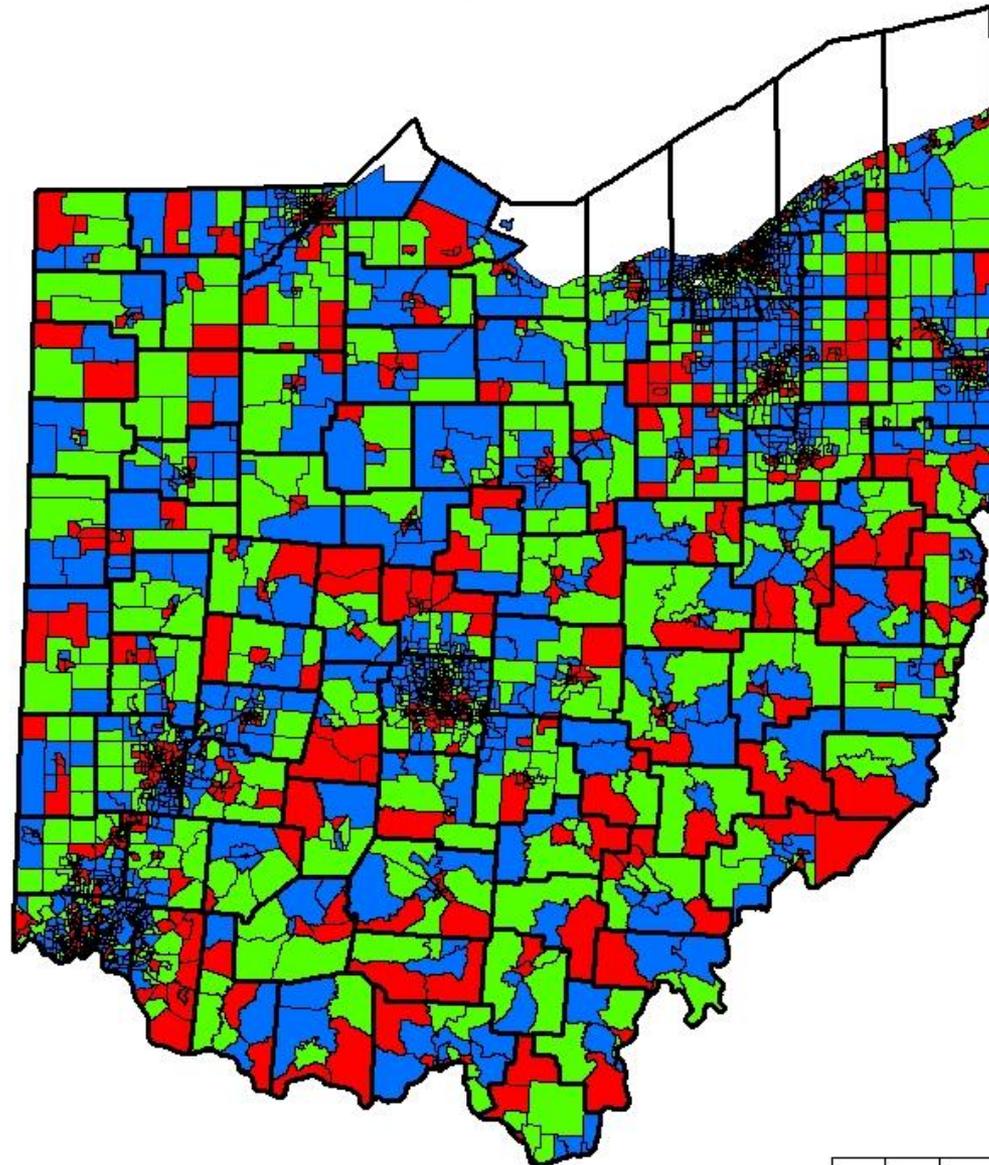
Legend

Tertile

- Lower socioeconomic status
- Middle socioeconomic status
- Higher socioeconomic status

Socioeconomic Tertiles¹ of the State of Ohio by Census Tract²

Analysis by County Level Census Tracts

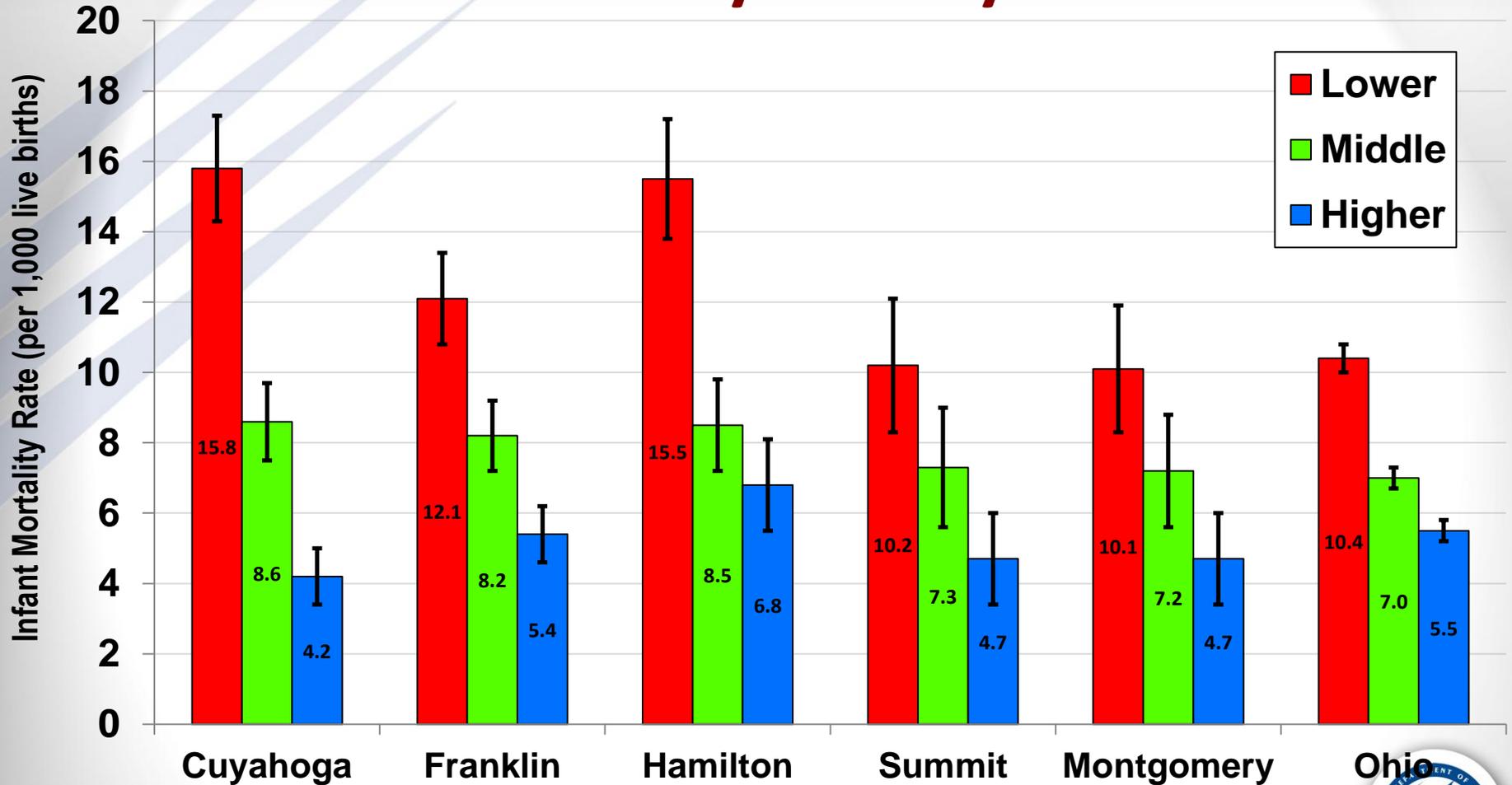


¹ Socioeconomic status was defined by median household income and attainment of a bachelor degree or higher by individuals 25 years of age or greater.
² 2010 U.S. Census Tracts.

Source: Socioeconomic status calculated from American Community Survey 5 year estimates (2007-2011). Data compiled July 30, 2013.
Prepared by: Richard Thomas, MPH,
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Ohio Department of Health.

0 25 50 100 Miles

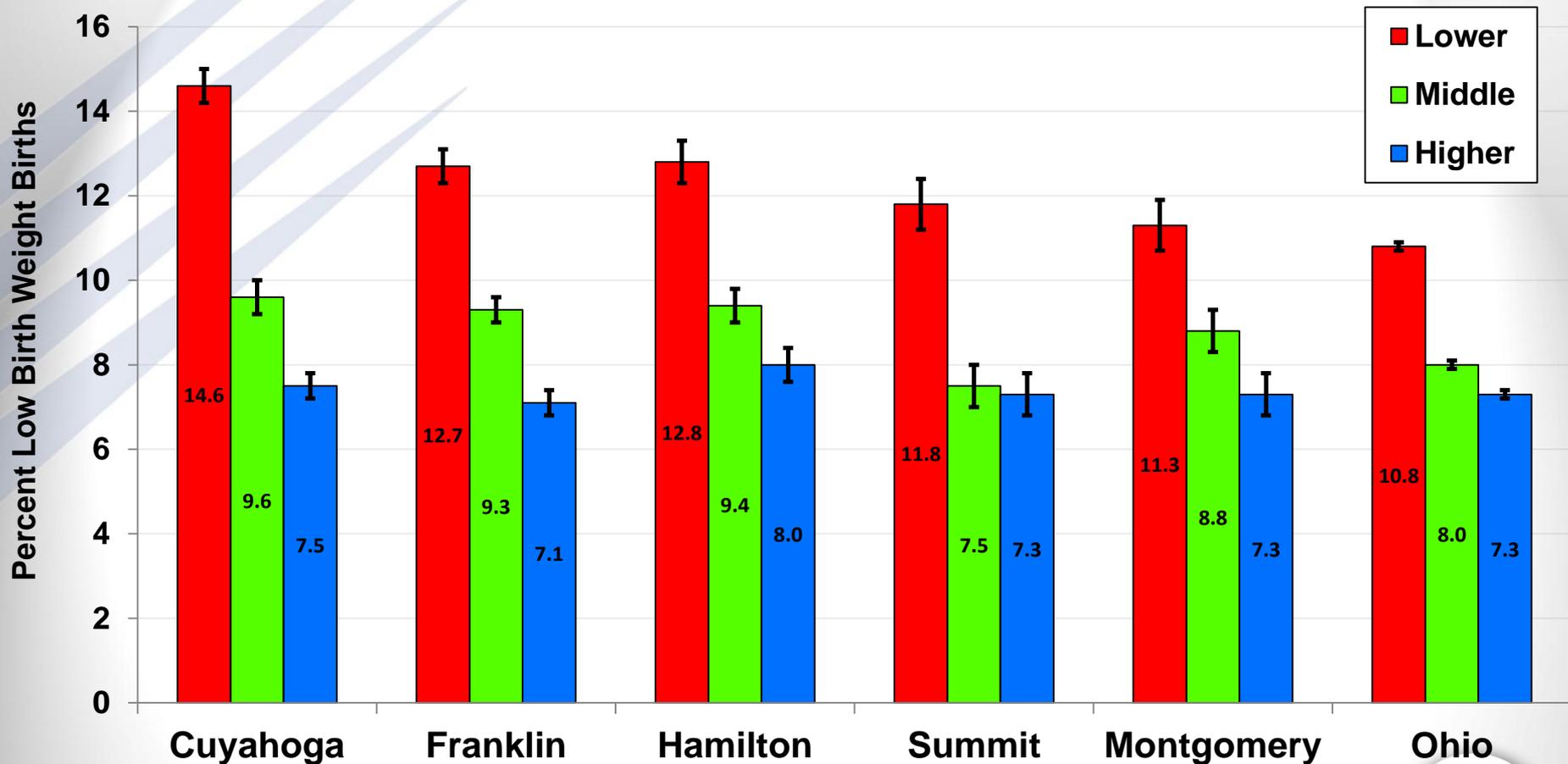
Infant Mortality Rate by SES Tertile



Socioeconomic status was defined by median household income and attainment of a bachelor degree by individuals 25 years of age or greater

Sources: Socioeconomic status calculated from American Community Survey 5 year estimates (2007-2011)
Ohio Risk Factor Data from Ohio Department of Health Vital Statistics Birth Files (2007-2011)

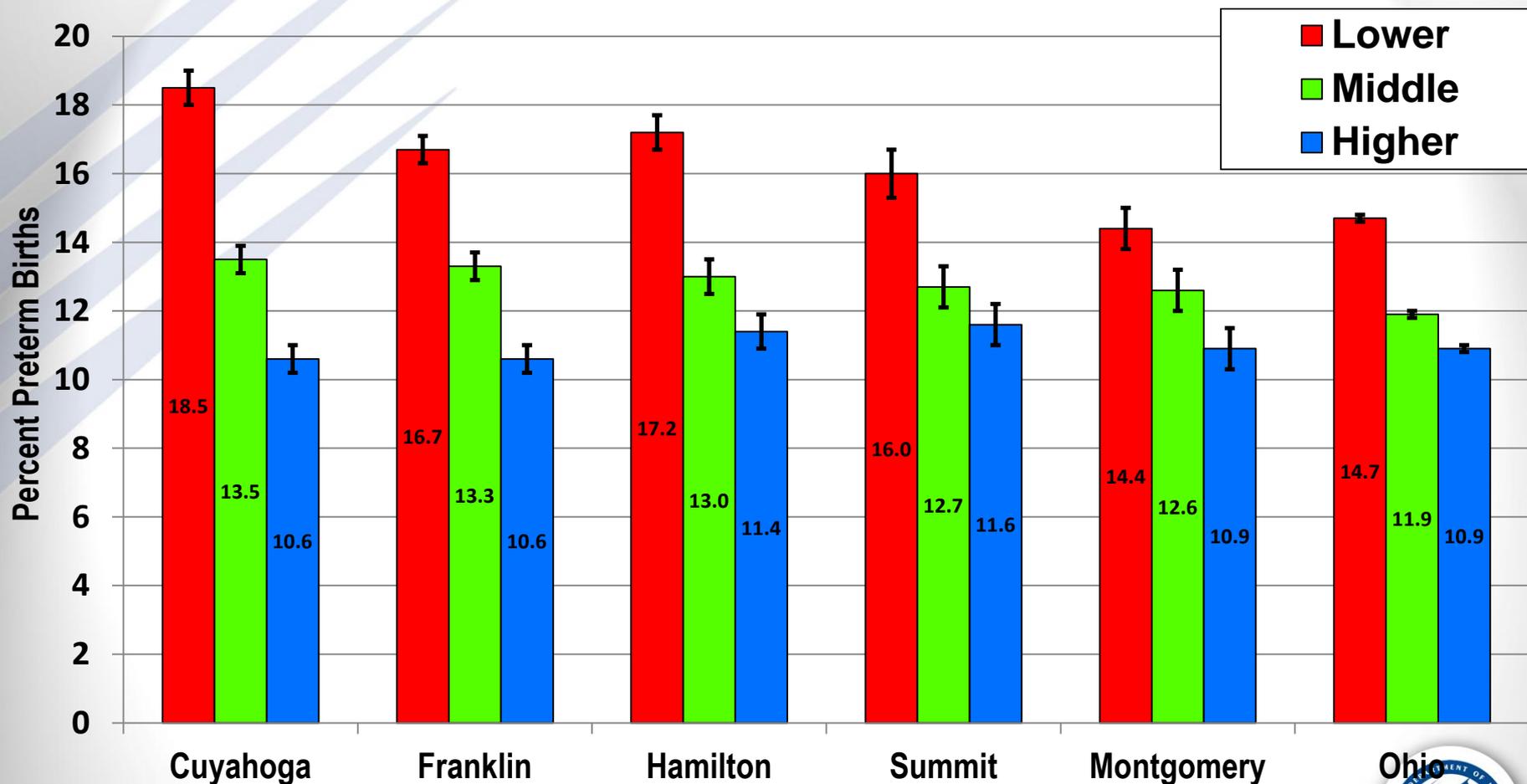
Low Birth Weight (< 2,500 grams) by SES tertile



1- Socioeconomic status was defined by median household income and attainment of a bachelor degree by individuals 25 years of age or greater

Sources: Socioeconomic status calculated from American Community Survey 5 year estimates (2007-2011)
Ohio Risk Factor Data from Ohio Department of Health Vital Statistics Birth Files (2007-2011)

Preterm Birth (<37 weeks gestation) by SES tertile

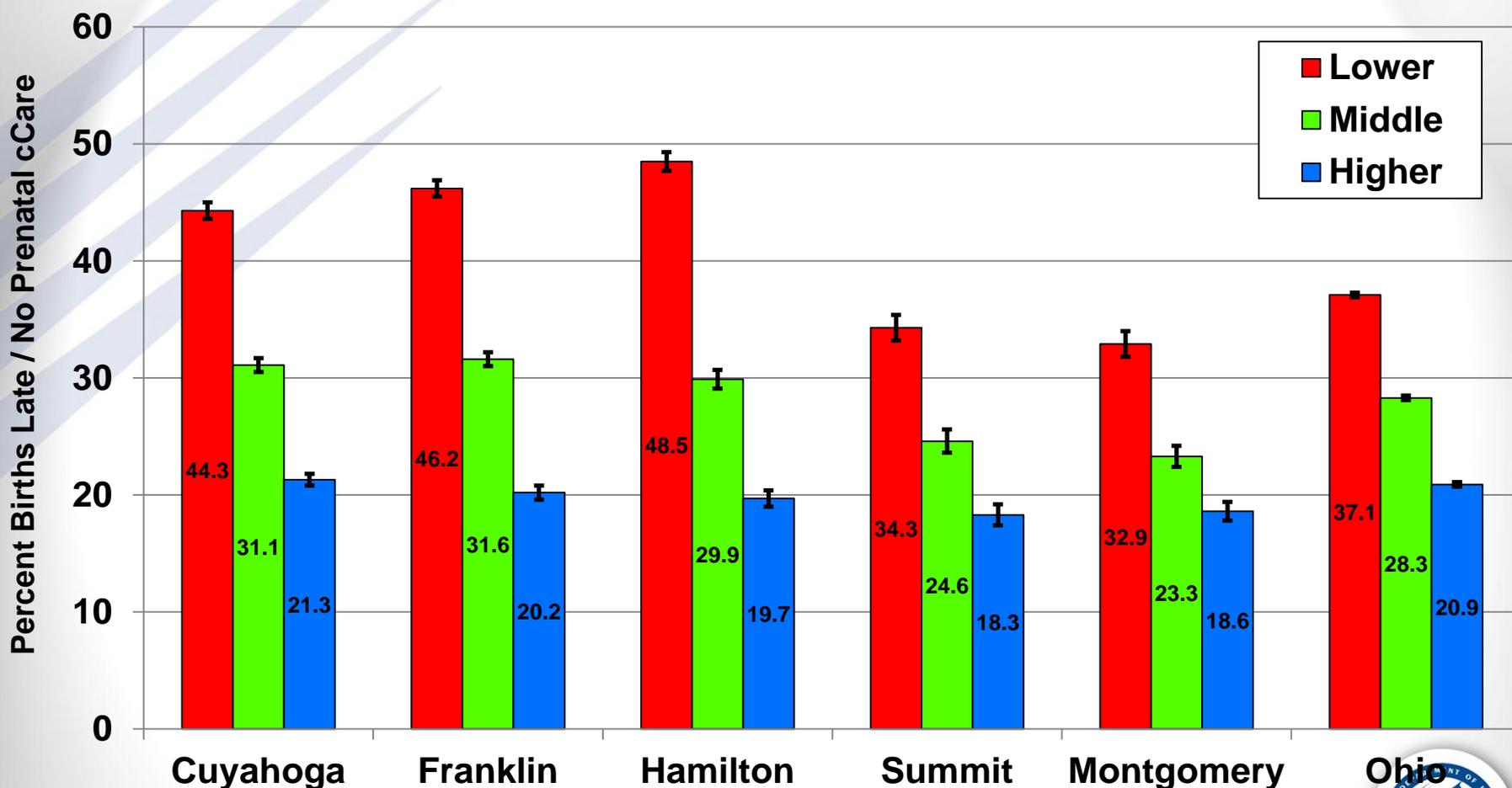


Socioeconomic status was defined by median household income and attainment of a bachelor degree by individuals 25 years of age or greater

Sources: Socioeconomic status calculated from American Community Survey 5 year estimates (2007-2011)
Ohio Risk Factor Data from Ohio Department of Health Vital Statistics Birth Files (2007-2011)



No/Late (>1st trimester) Prenatal Care by SES Tertile

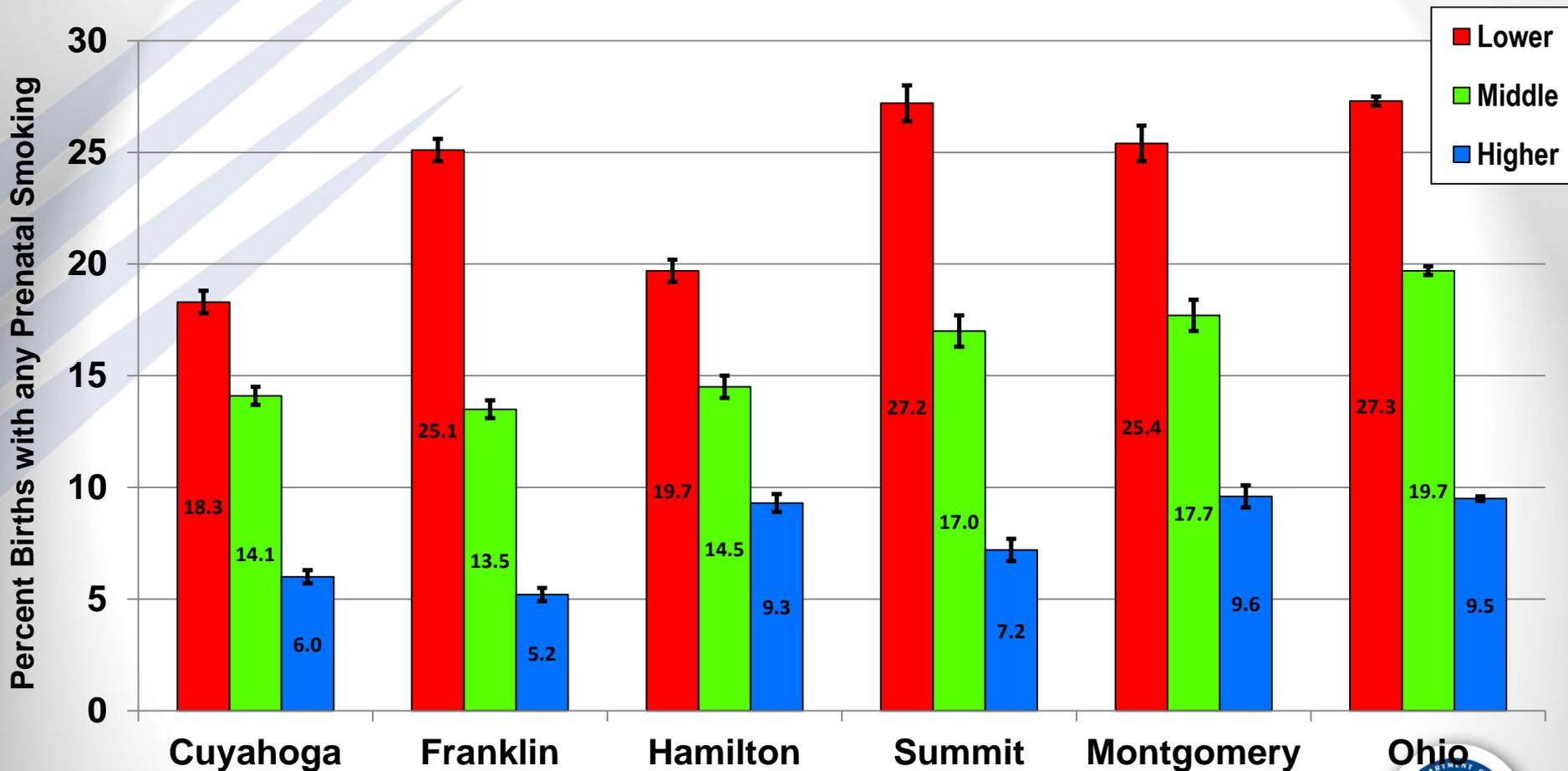


Socioeconomic status was defined by median household income and attainment of a bachelor degree by individuals 25 years of age or greater. Prenatal care that was not classifiable (22.5% of births) were excluded in analysis.

Sources: Socioeconomic status calculated from American Community Survey 5 year estimates (2007-2011)

Ohio Risk Factor Data from Ohio Department of Health Vital Statistics Birth Files (2007-2011)

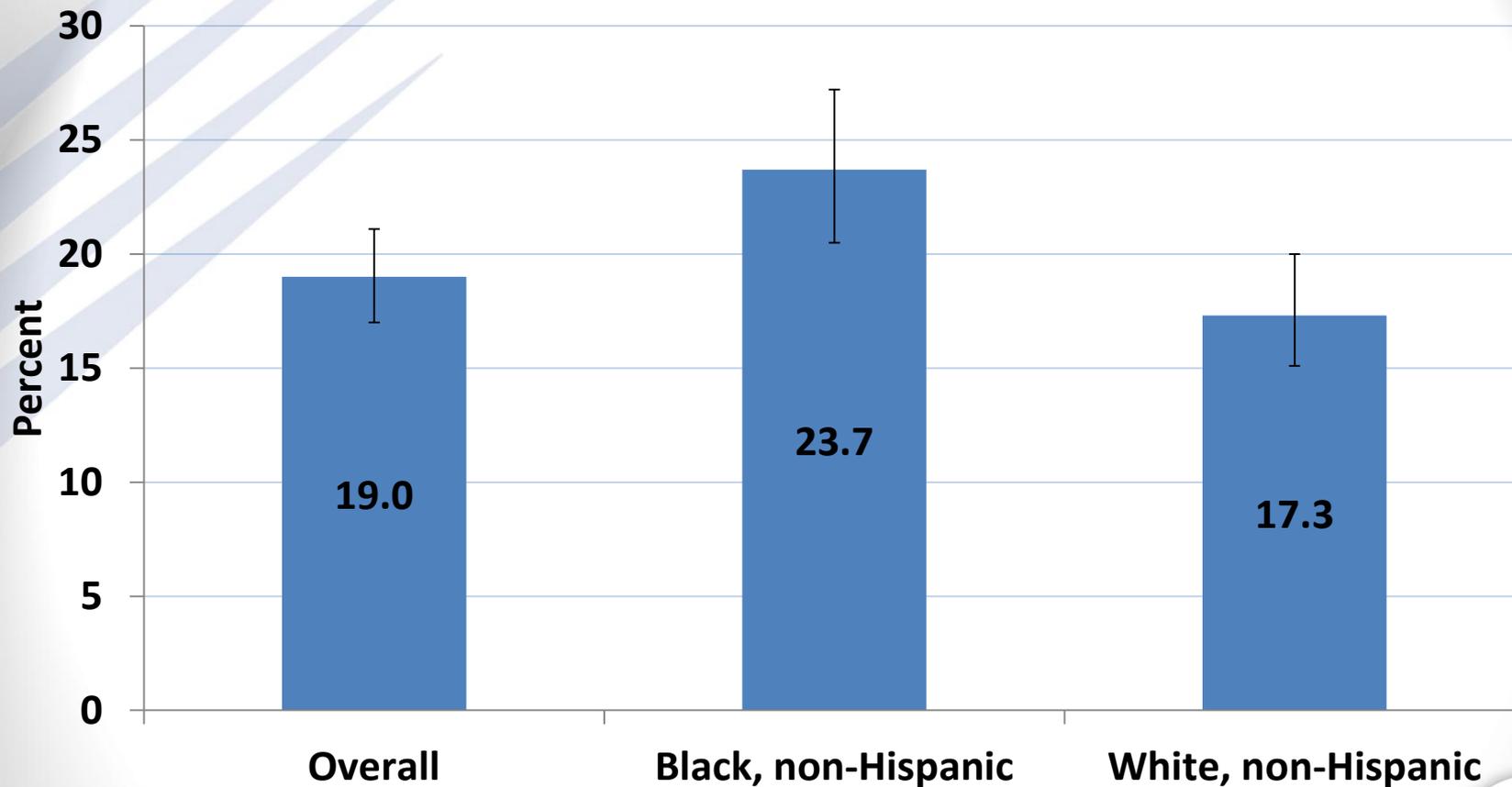
Maternal Smoking During Pregnancy



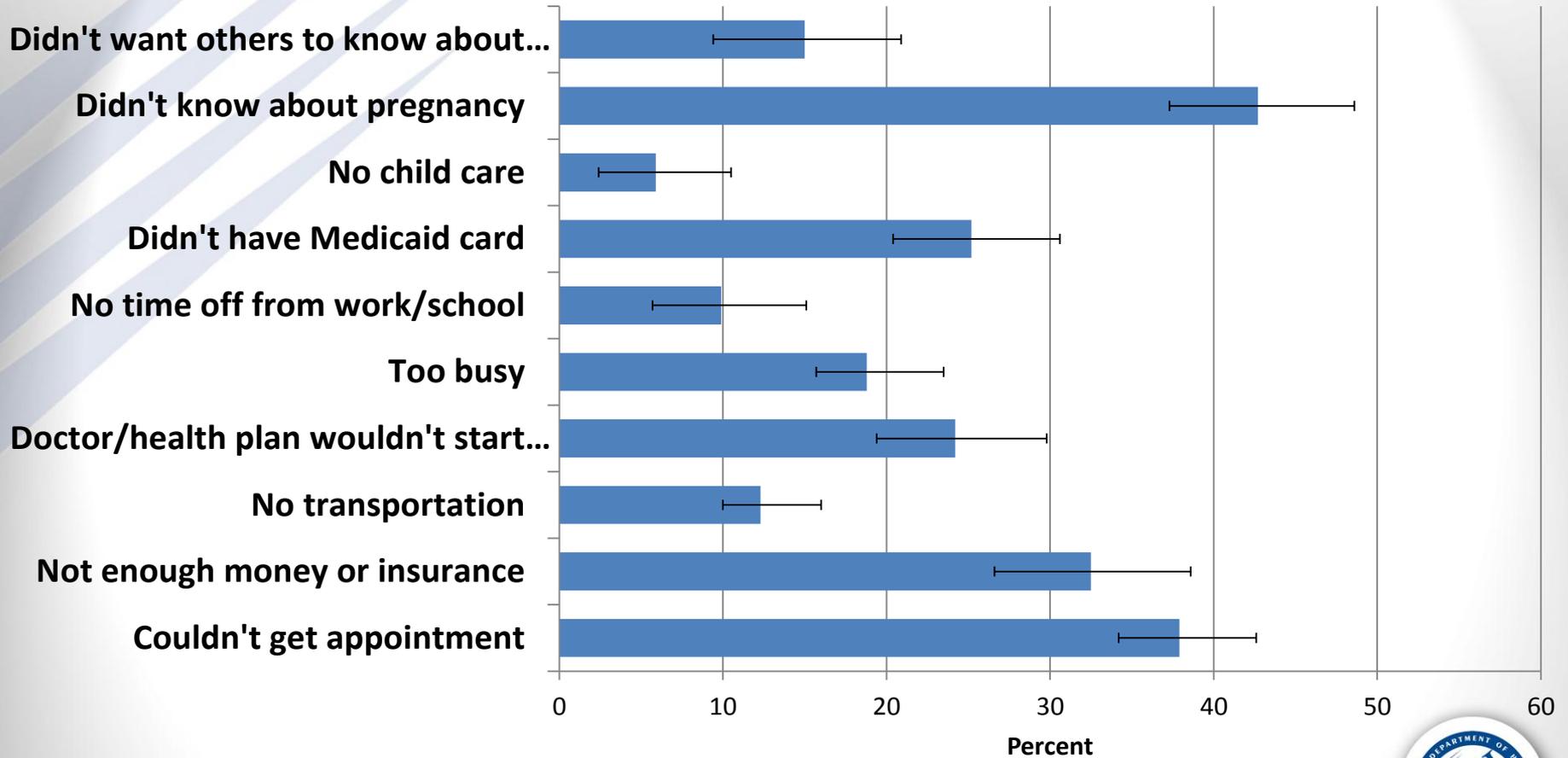
Socioeconomic status was defined by median household income and attainment of a bachelor degree by individuals 25 years of age or greater

Sources: Socioeconomic status calculated from American Community Survey 5 year estimates (2007-2011)
Ohio Risk Factor Data from Ohio Department of Health Vital Statistics Birth Files (2007-2011)

Mothers Who Did Not Begin Prenatal Care As Early As Wanted, By Race, Ohio, 2009-2010



Reasons for Not Beginning Prenatal Care As Early as Wanted, Ohio, 2009-2010



Note: Mothers could select all that applied

Source: Pregnancy Risk Assessment Monitoring System, Ohio Department of Health



White-Black Dissimilarity Index* and Infant Mortality Rates** for Selected Ohio Cities

Ohio City	Dissimilarity Index	Infant Mortality Rate (per 1,000 births)		
		Overall	White, non-Hispanic	Black, non-Hispanic
Cincinnati	0.63	10.4	6.8	18.7
Columbus	0.61	8.7	7.1	15.4
Cleveland	0.79	9.2	5.5	15.7

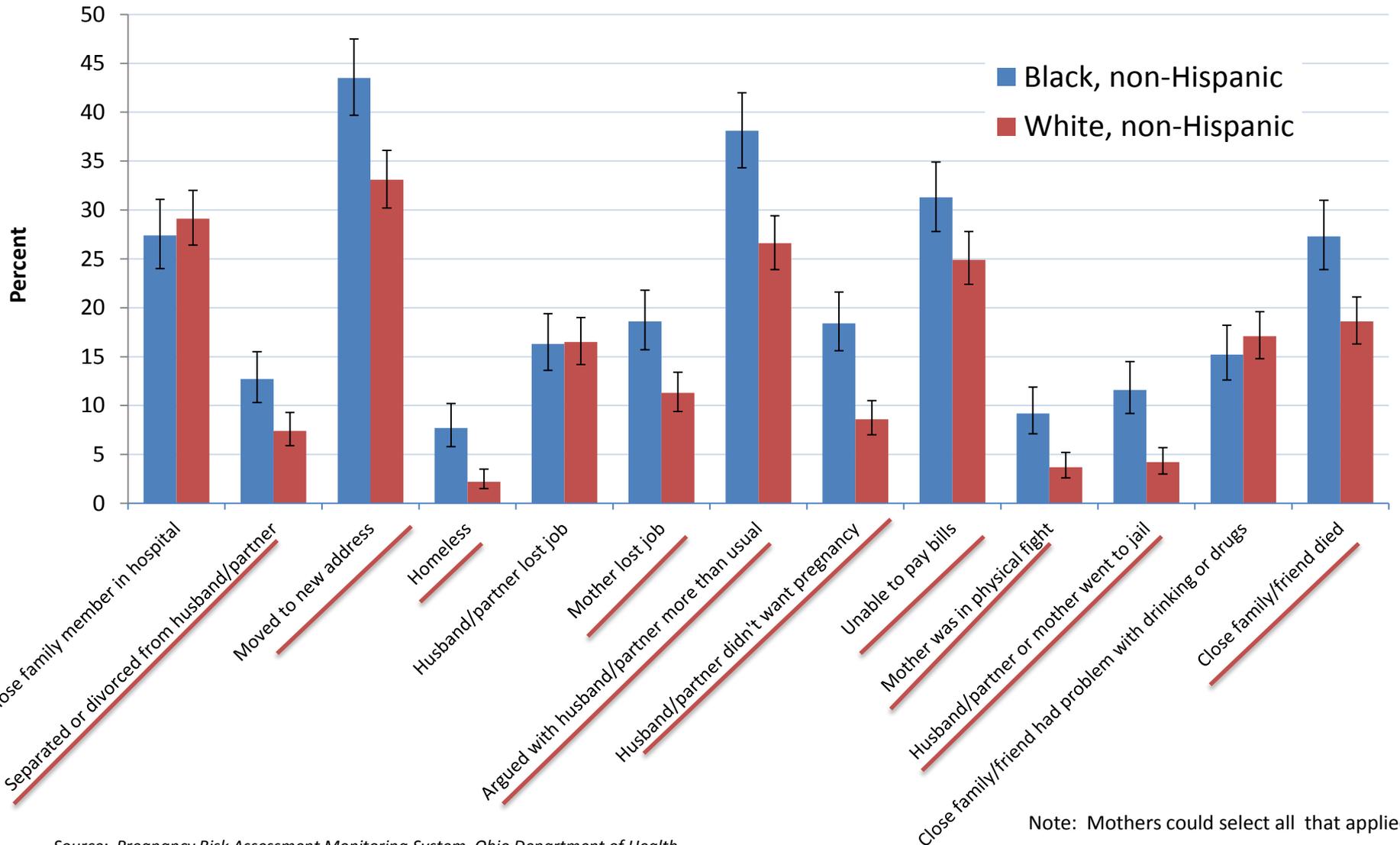
* Calculated from <http://censusscope.org> using Census 2000 data

** Ohio Department of Health Vital Statistics Final Death Files (2009-2011)

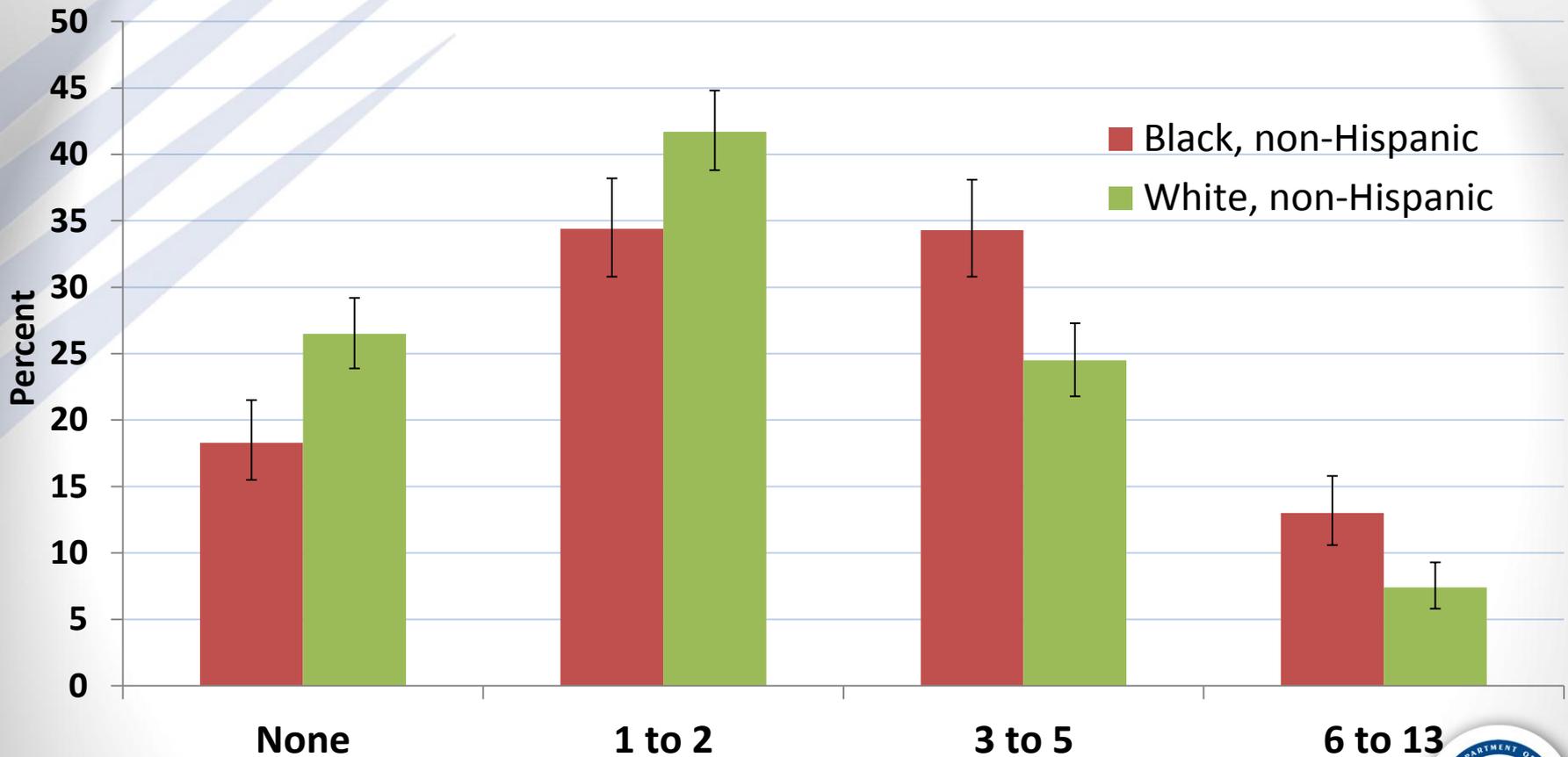
Note: Infant mortality calculated using deaths in Hamilton, Franklin, and Cuyahoga counties



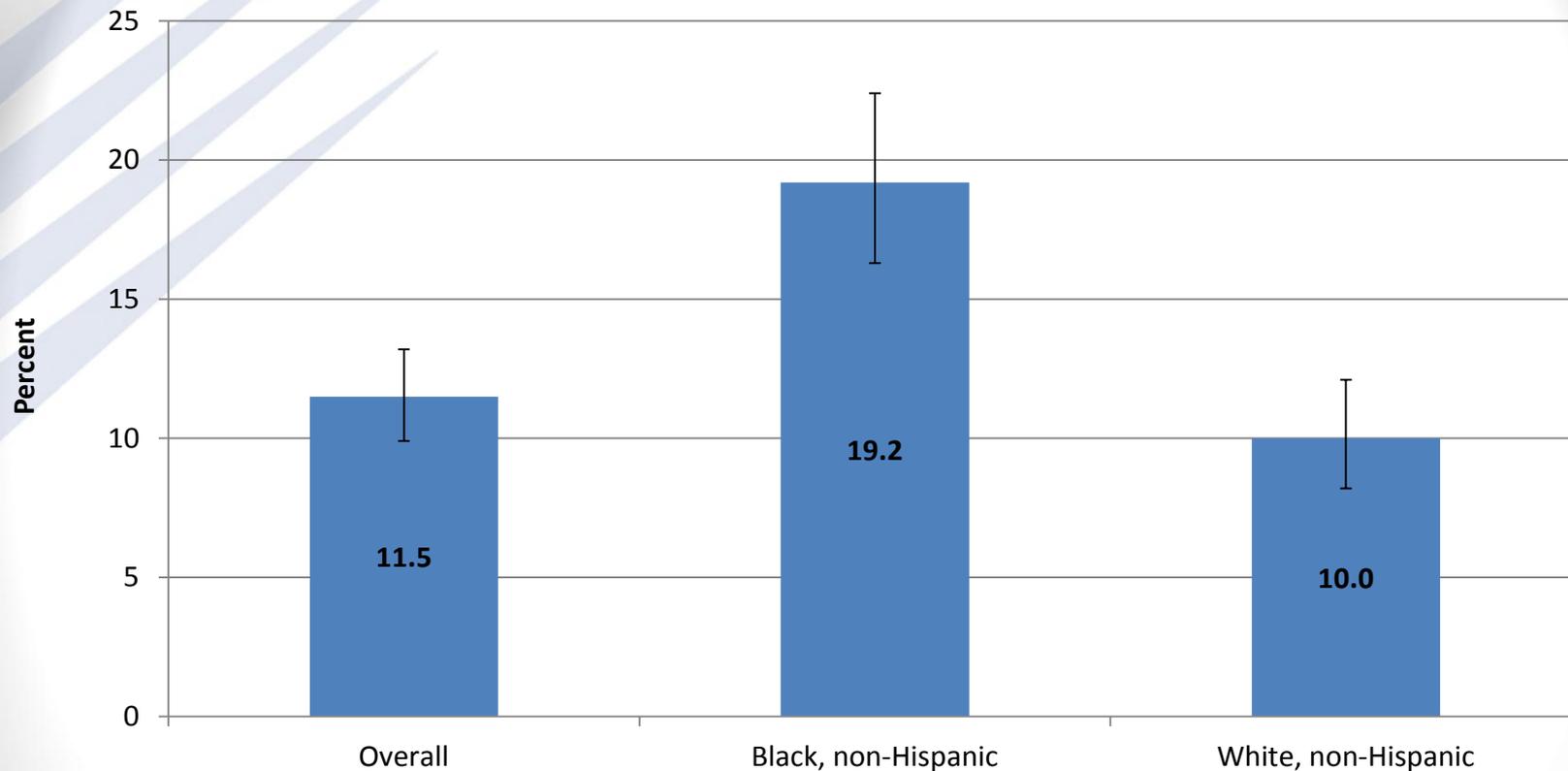
Prevalence of Stressful Events in the 12 Months Before Baby Was Born, By Race, Ohio, 2009-2010



Number of Stressful Events in the 12 Months Before Baby Was Born, By Race, Ohio, 2009-2010



Mothers Who Always, Often, or Sometimes Felt Unsafe in Their Neighborhood, By Race, Ohio, 2009-2010



Source: *Pregnancy Risk Assessment Monitoring System, Ohio Department of Health*





Thank you!

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