



**Indiana**  
**Department**  
**of**  
**Health**

# Indiana Linked Birth and Death Data, 2015-2019

Maternal & Child Health  
Epidemiology

March 2022

OUR MISSION:

**To promote, protect, and improve  
the health and safety of all Hoosiers.**

OUR VISION:

**Every Hoosier reaches optimal health  
regardless of where they live, learn,  
work, or play.**



# Data Description

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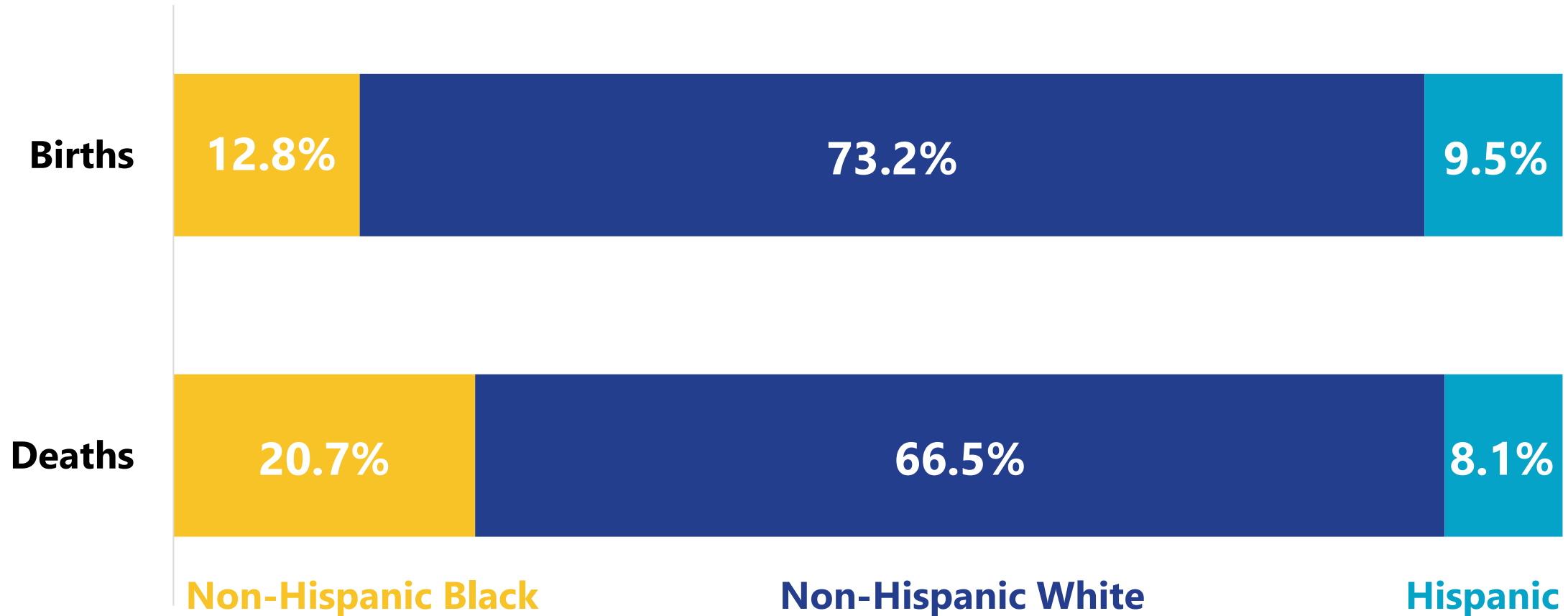
- Based on Indiana births that were linked to Indiana infant death records.
- 2015-2019 describes the infant birth year.
- The infant death year spans 2015-2020.
- Gives us the ability to analyze the relationships between risk factors and infant mortality rather than the two pieces independently.
- The data points in this presentation should not be compared to other materials and statistics based on only birth or death records.

# Limitations

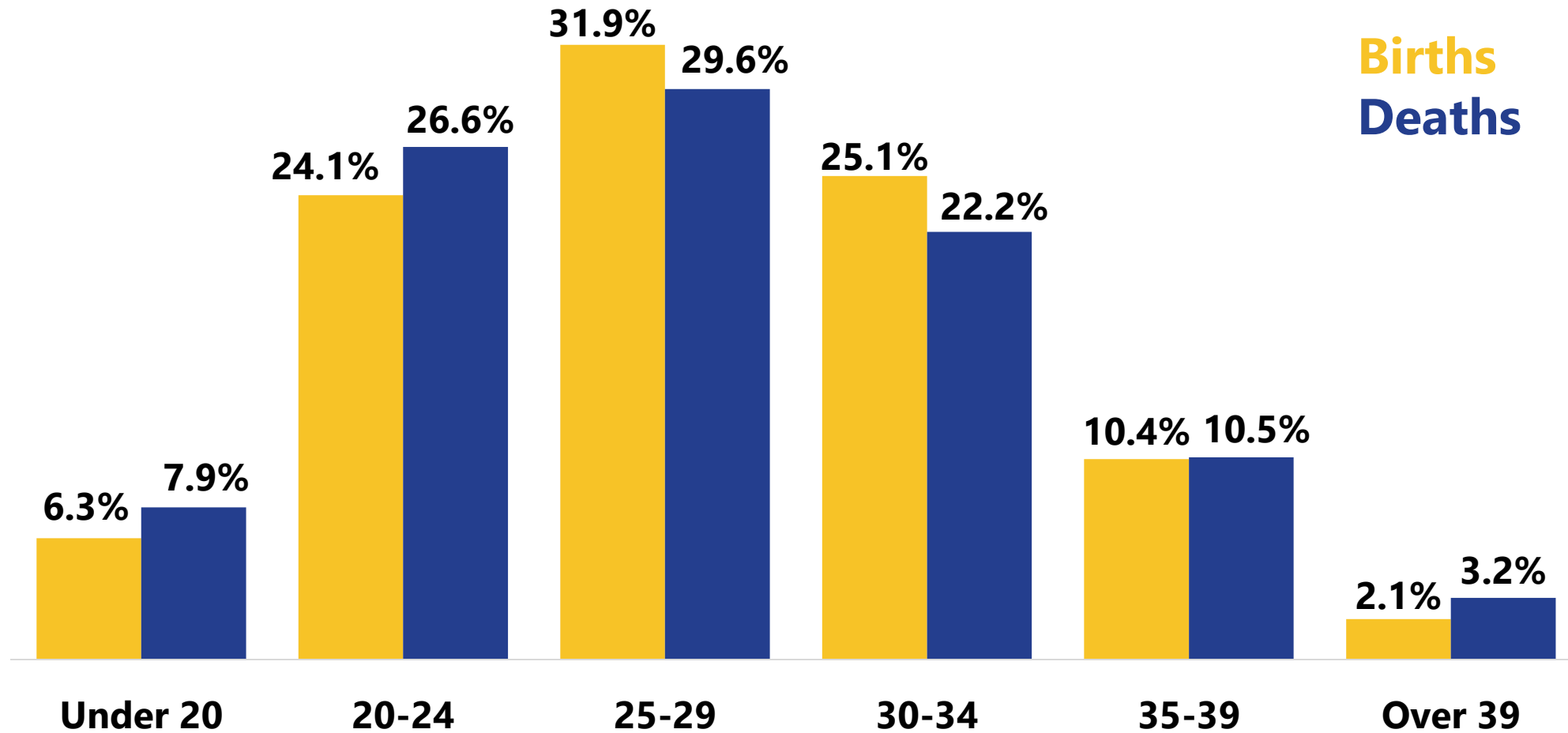
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- Not all Indiana infant death records were linked with a birth record.
  - This means that the infant mortality rates provided based on this analysis might be an underestimate of the true rates for Indiana.
- 2,675 records were matched ~ 92%.
- Matching varies by cause of death, all causes matched between 90% and 97%.
- Race and ethnicity may differ on birth and death records. We use data from the birth certificate to match the CDC's method.
  - This means that race/ethnicity infant mortality rates may differ when compared to annual reports.

# Indiana Linked Births and Infant Deaths by Race and Ethnicity



# Indiana Linked Births and Infant Deaths by Age of Mom





# Birth Outcome Indicators

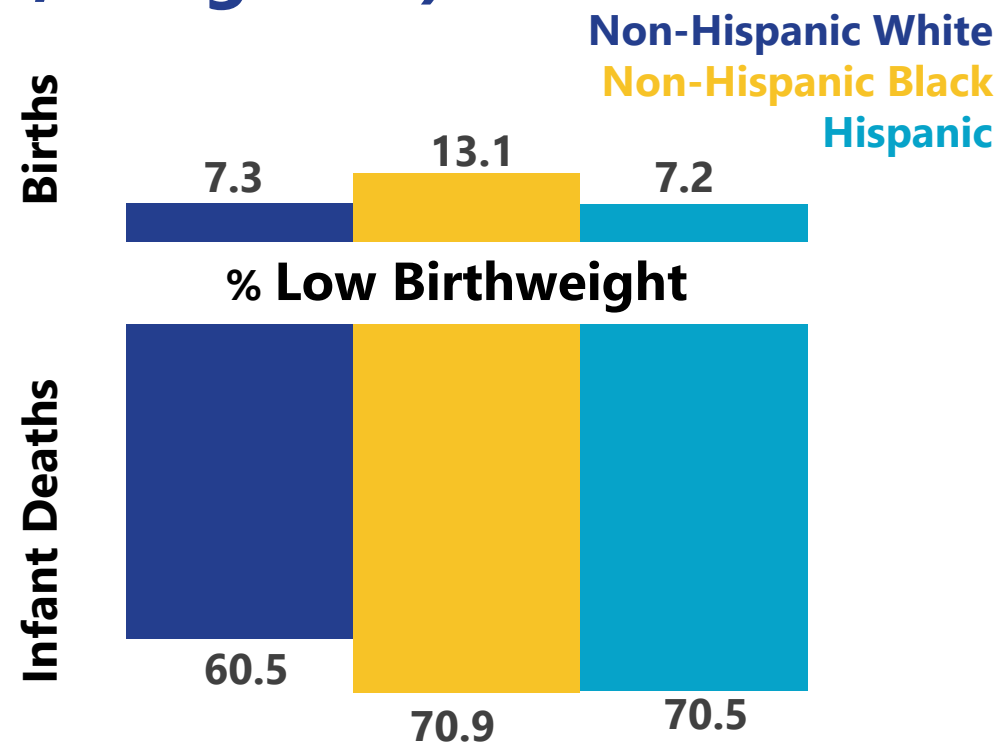
# Low Birthweight

# 63.7%

of infants who died had a **low birthweight (< 2,500 grams)**

# Over 5%

of **low birthweight births** resulted in an infant death



Comparisons should not be made to unlinked data sources.

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [March 2, 2022]

Indiana Original Source: Indiana Department of Health, Vital Records, ODA, DAT, Informatics



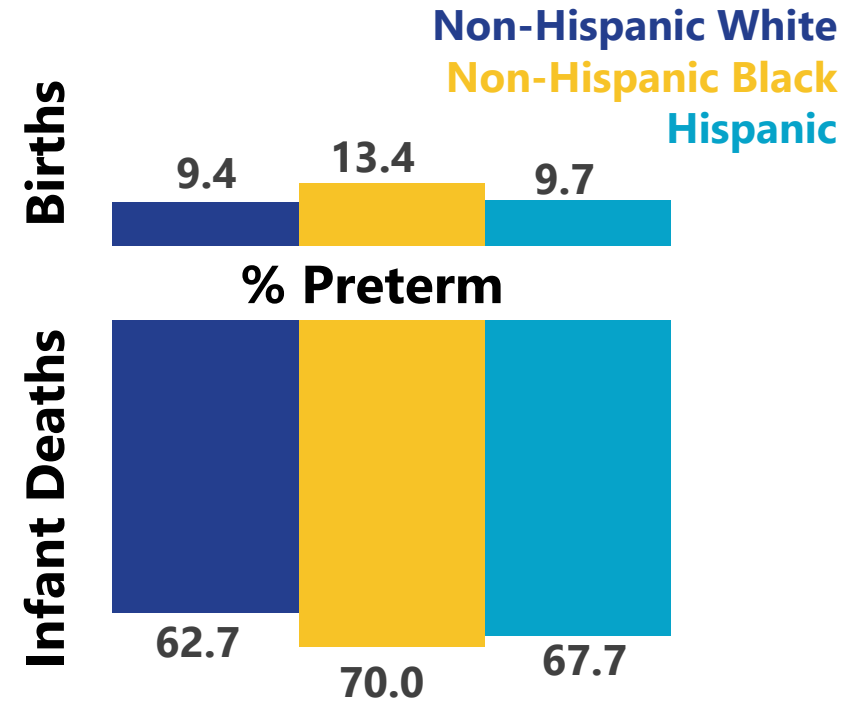
# Preterm

# 64.9%

of infants who died were born preterm (< 37 weeks gestation)

# Over 4%

of preterm births resulted in an infant death



Comparisons should not be made to unlinked data sources.

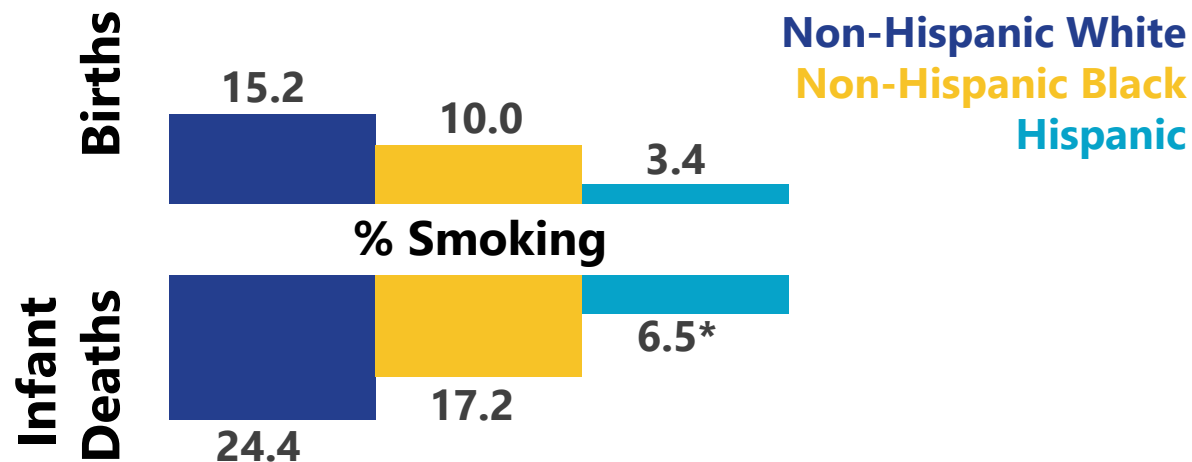
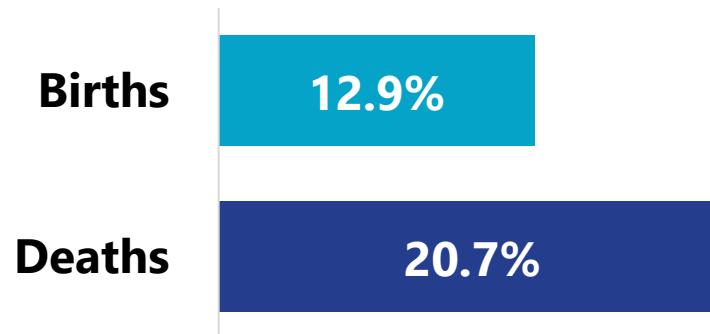
Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [March 2, 2022]

Indiana Original Source: Indiana Department of Health, Vital Records, ODA, DAT, Informatics

# Smoking During Pregnancy

## 20.7%

of the infants who died were born to a mom who reported smoking during pregnancy



\* Percentages based on counts less than 20 are unstable and should be interpreted with caution.

Comparisons should not be made to unlinked data sources.

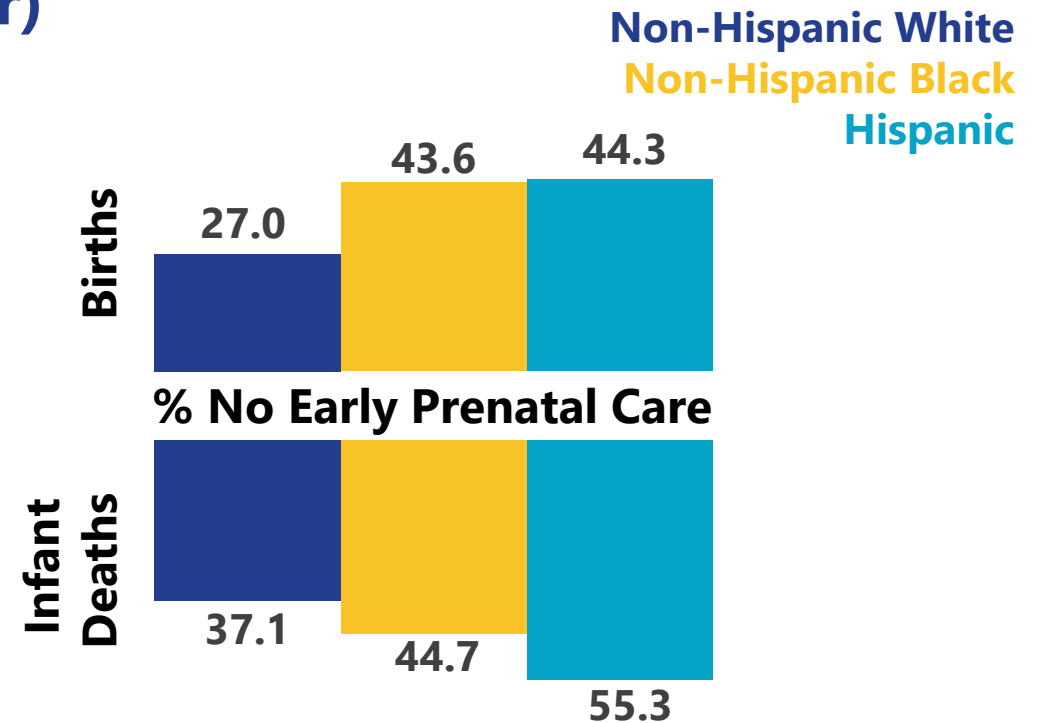
Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [March 2, 2022]

Indiana Original Source: Indiana Department of Health, Vital Records, ODA, DAT, Informatics

# Early Prenatal Care

2 out of every 5

infants who died received no early prenatal care (1<sup>st</sup> trimester)



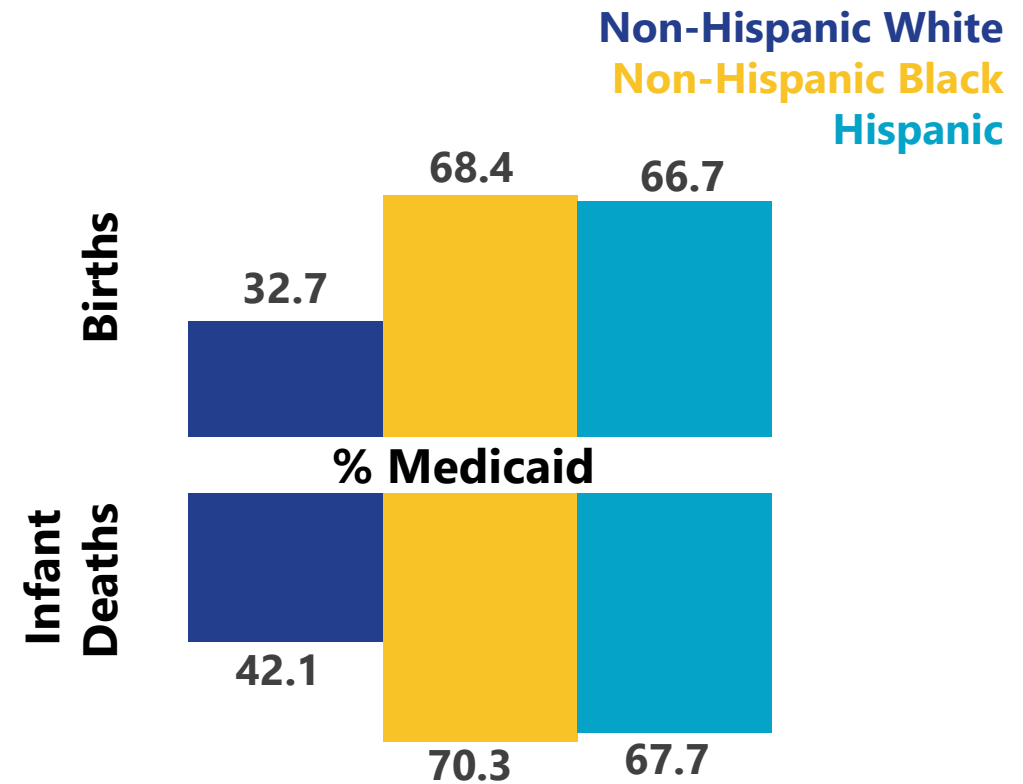
Comparisons should not be made to unlinked data sources.

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [March 23, 2022]

Indiana Original Source: Indiana Department of Health, Vital Records, ODA, DAT, Informatics

# Medicaid

**50.2%** of infants who died were born to a mother on Medicaid



Comparisons should not be made to unlinked data sources.

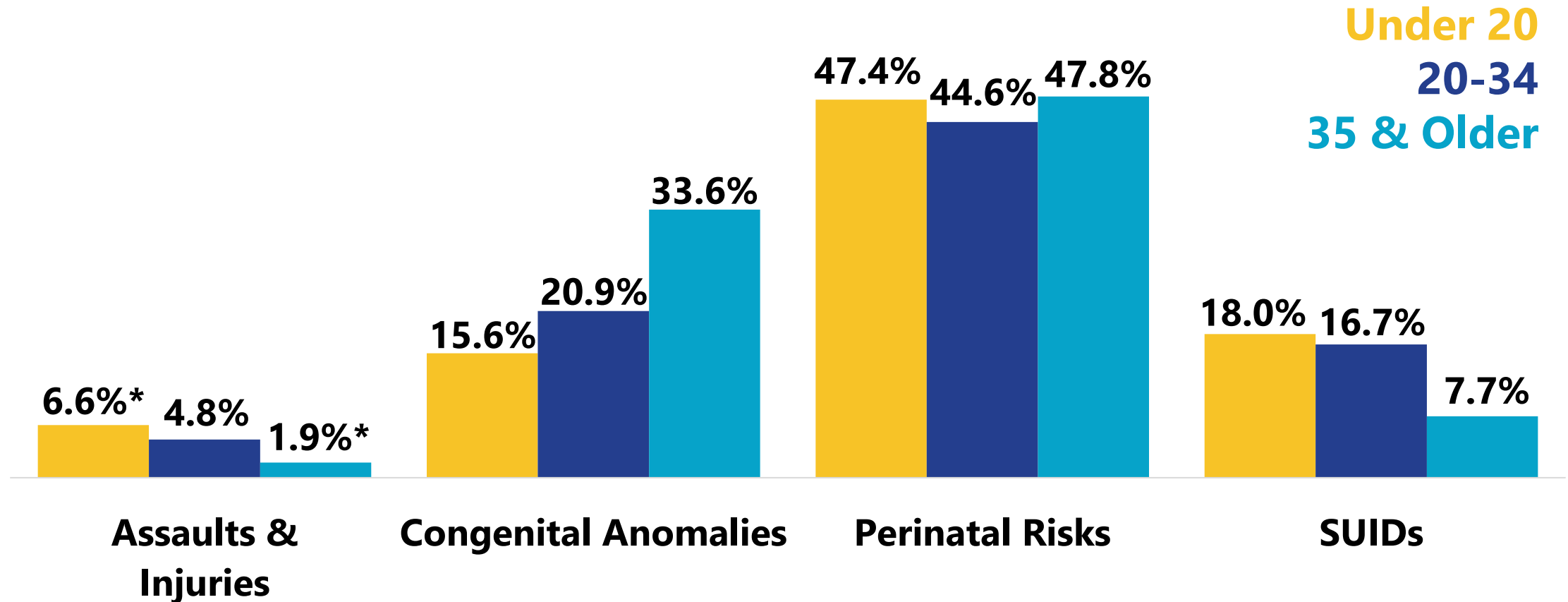
Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [March 2, 2022]

Indiana Original Source: Indiana Department of Health, Vital Records, ODA, DAT, Informatics



# Causes of Infant Death in Indiana, 2015-2020

# Cause of Death by Age of Mom



\*Percentages based on low counts should be interpreted with caution

Comparisons should not be made to unlinked data sources.

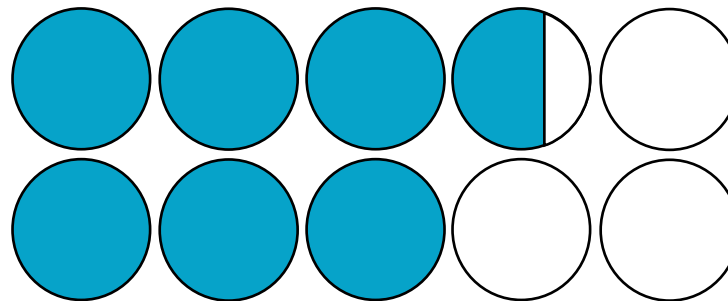
Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [March 3, 2022]  
Indiana Original Source: Indiana Department of Health, Vital Records, ODA, DAT, Informatics

# Assaults & Injuries

**1.8x** greater risk of infant death due to **assaults or injuries** when mothers are **age 19 or younger**

**68.0%**

of infant deaths from **assaults or injuries** were babies born to mothers on **Medicaid**

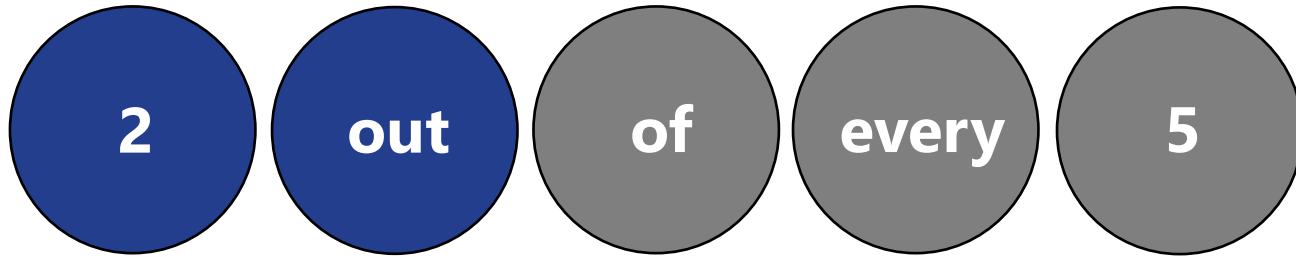


Comparisons should not be made to unlinked data sources.

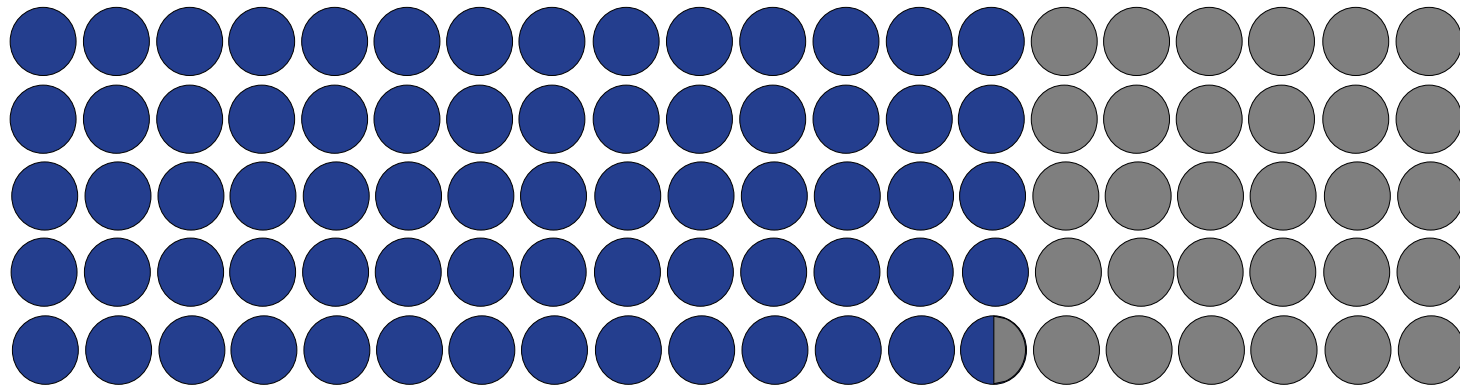
Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [March 15, 2022]

Indiana Original Source: Indiana Department of Health, Vital Records, ODA, DAT, Informatics

# Sudden Unexpected Infant Deaths (SUIDs)



SUIDs were linked to a mother who reported **smoking during pregnancy**

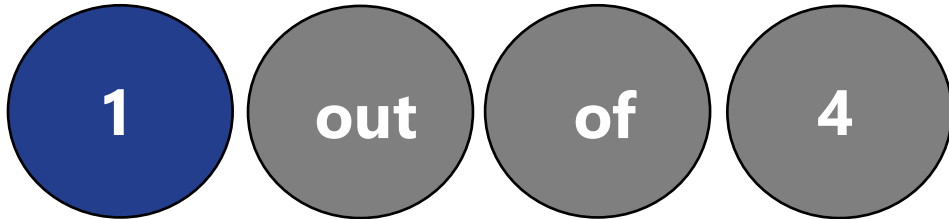


**69.6%** of all SUIDs were babies born to mothers on Medicaid

Comparisons should not be made to unlinked data sources.  
Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [March 15, 2022]  
Indiana Original Source: Indiana Department of Health, Vital Records, ODA, DAT, Informatics

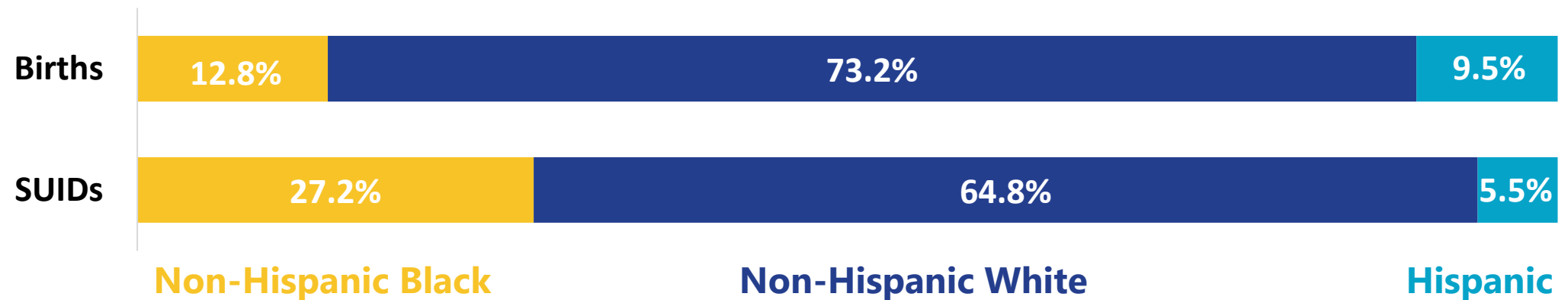


## Preterm or Low Birthweight Births and SUIDs



**26.0%** of SUIDs were linked to a baby who was born **preterm or low birthweight**

## Births and SUIDs by Race and Ethnicity



Comparisons should not be made to unlinked data sources.

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [March 15, 2022]

Indiana Original Source: Indiana Department of Health, Vital Records, ODA, DAT, Informatics

# Summary

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- Linked data allows us to analyze the relationships between risk factors and infant mortality rather than the two pieces independently.
- Most Indiana infant deaths were either premature or low birthweight babies.
- Smoking and no early prenatal care during pregnancy are linked to higher percentages of infant death.
- Trends exist between cause of infant death and the age of mom.
- Large disparities exist in indicators and outcomes.

# Questions?

## CONTACT:

**Division of Maternal and Child Health**

[ISDHMCH@isdh.in.gov](mailto:ISDHMCH@isdh.in.gov)

