



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

# INDIANA INFANT MORTALITY – CAUSE OF DEATH DISTRIBUTION, 2017-2021

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MATERNAL AND CHILD HEALTH  
EPIDEMIOLOGY

2/9/2023

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.**



# Overall Indiana infant mortality



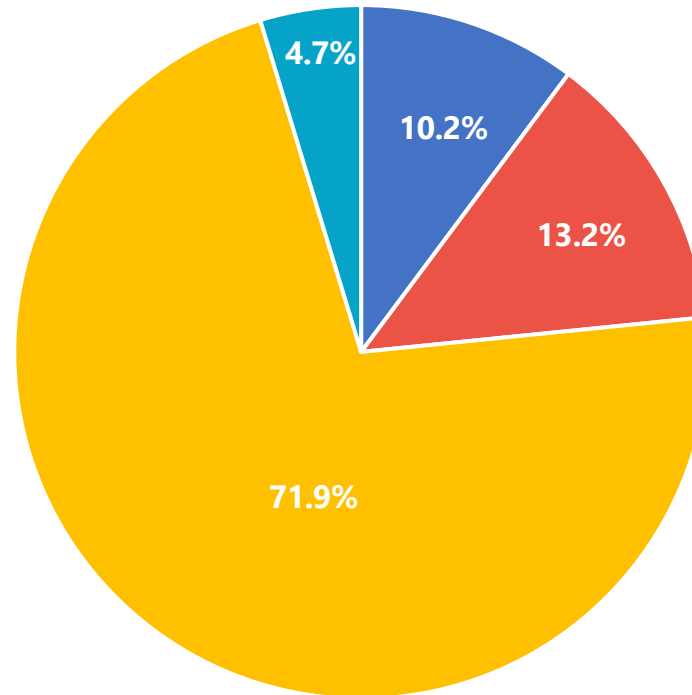
# Background information

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- Indiana classifies infant causes of death into five categories:
  - Perinatal risks
  - Congenital anomalies
  - Assaults/injuries
  - SUIDs
  - Other
- Data is pulled from finalized annual death records based on vital records

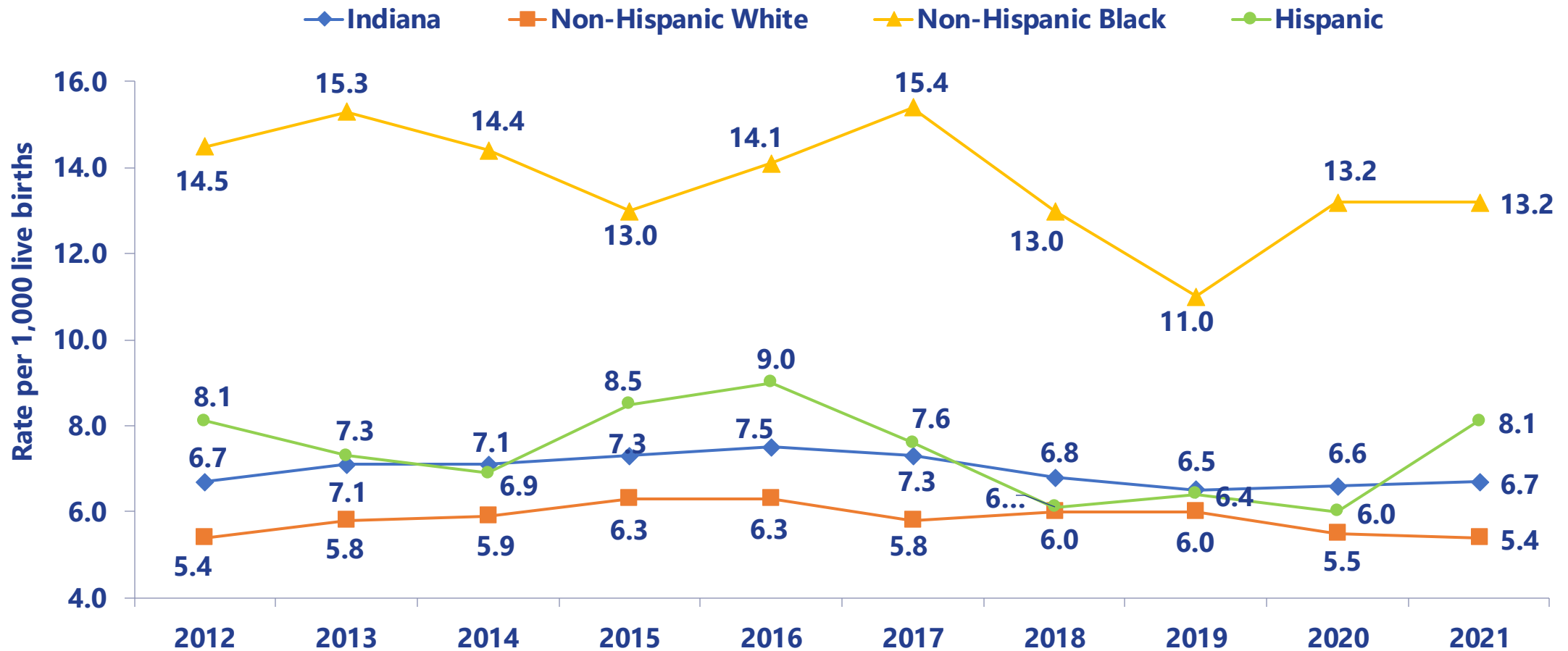
# Indiana births 2017-2021

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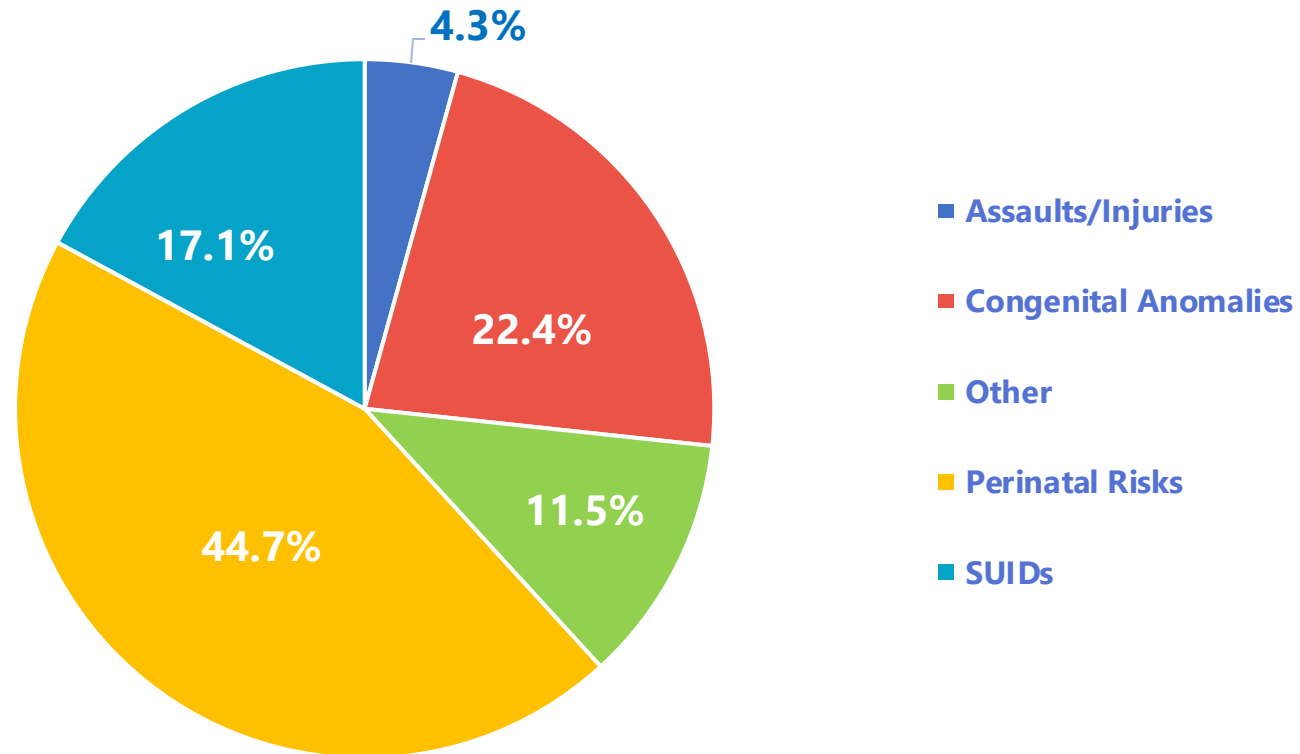
■ Hispanic ■ Non-Hispanic Black ■ Non-Hispanic White ■ Other

# Infant mortality 2012-2021



# Overall cause of death

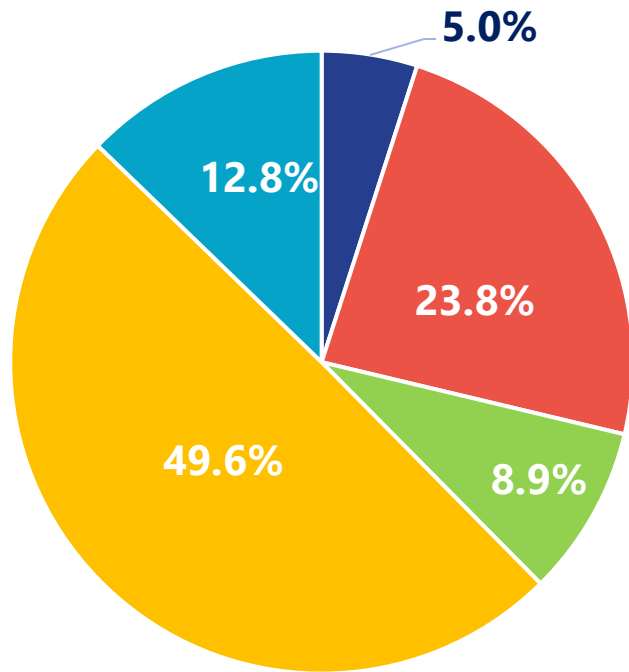
Indiana Infant Mortality 2017-2021 (n=2833)



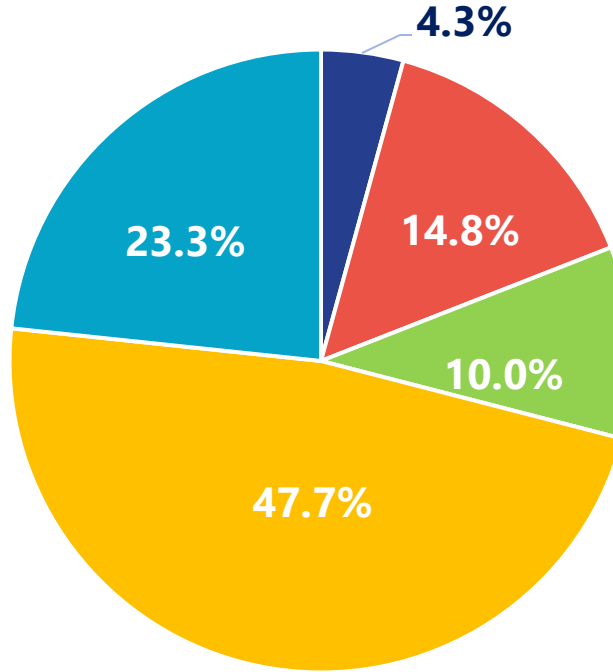
Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [February 8, 2023]  
Indiana Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team

# Cause of death by race/ethnicity, 2017-2021

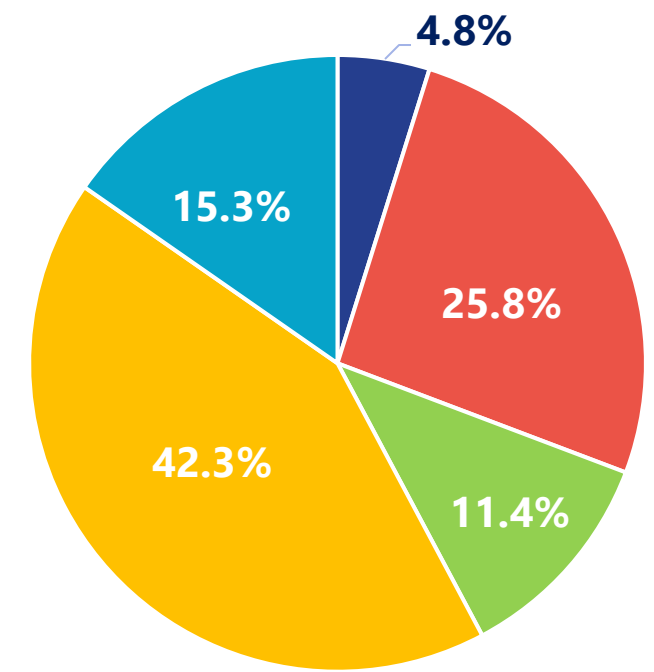
Hispanic Infant Mortality 2017-2021 (n=282)



Non-Hispanic Black Infant Mortality 2017-2021 (n=703)



Non-Hispanic White Infant Mortality 2017-2021 (n=1665)



Assaults/Injuries

SUIDs

Perinatal Risks

Congenital Anomalies

Other



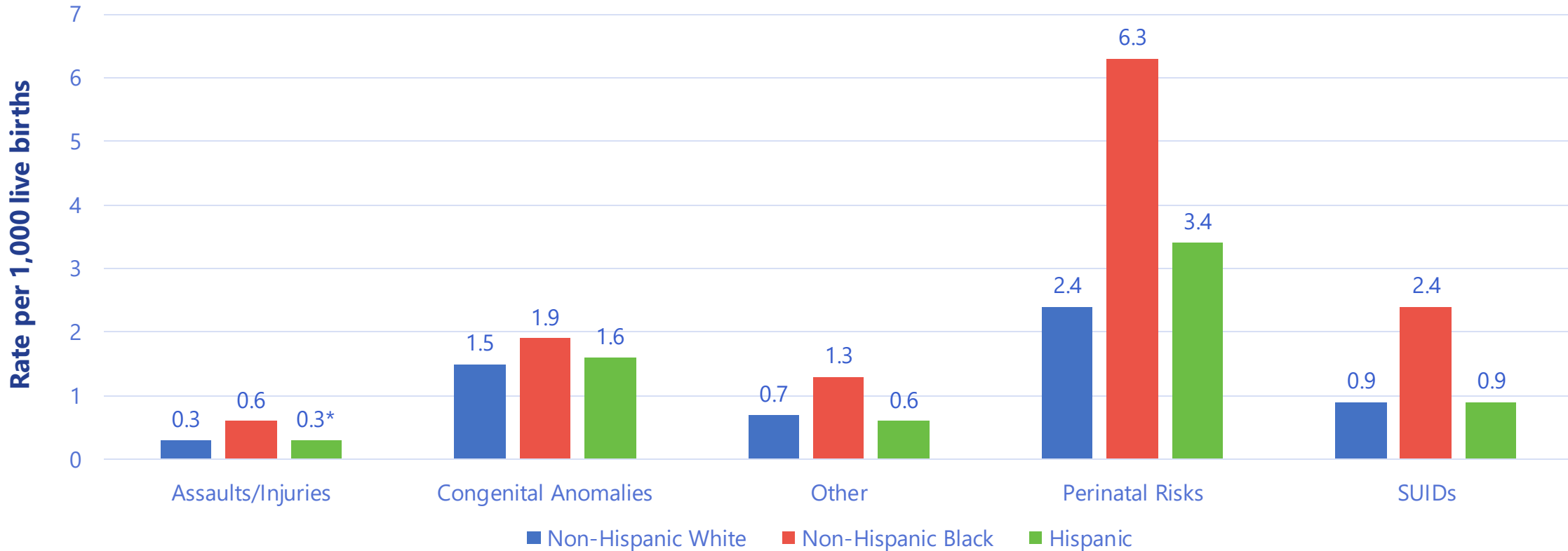
\* Percentage is based on counts less than 20 and should be interpreted with caution.

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [February 8, 2023]  
 Indiana Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team



# Infant mortality rate (IMR) by race/ethnicity

## Indiana IMR by Race/Ethnicity, 2017-2021

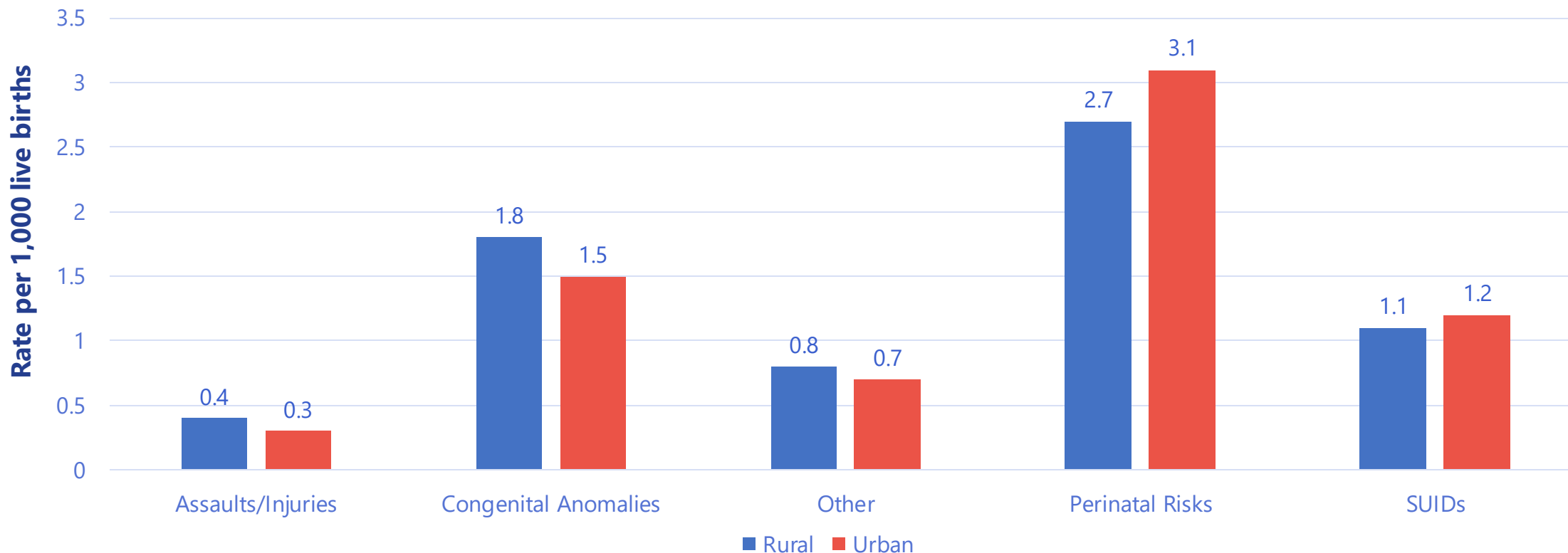


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# Cause of death comparing urban and rural

## Indiana IMR for cause of death by urban/rural designation, 2017-2021

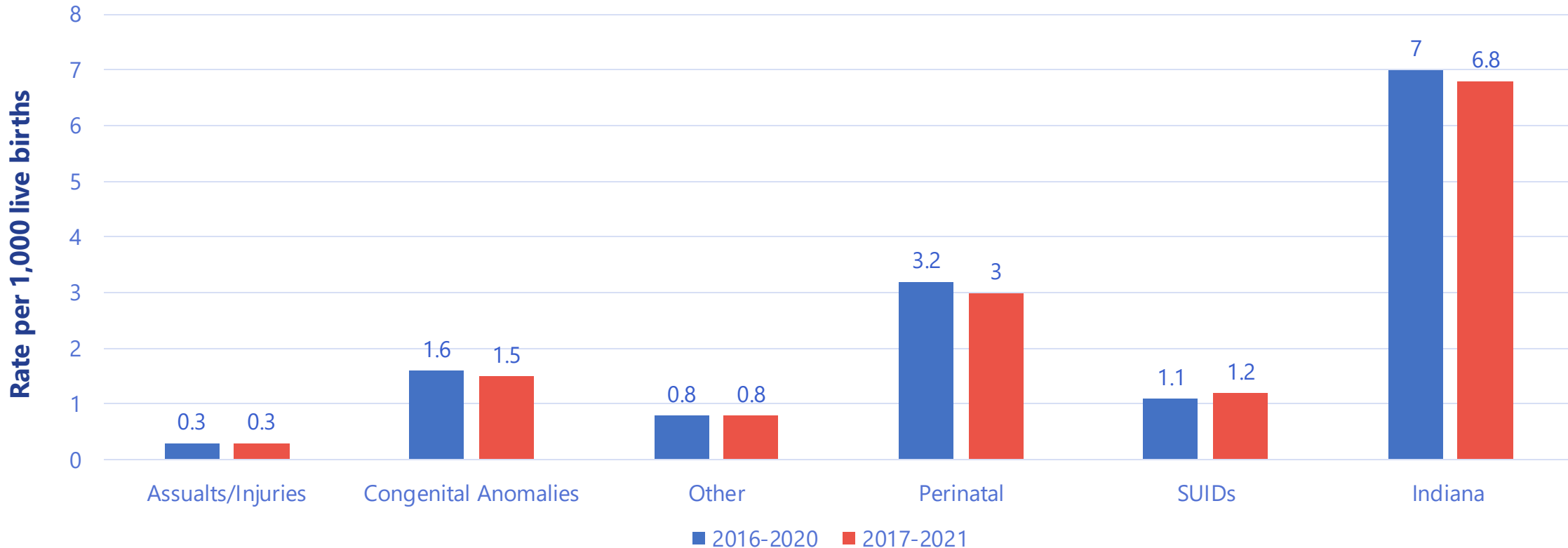


# Perinatal Risks



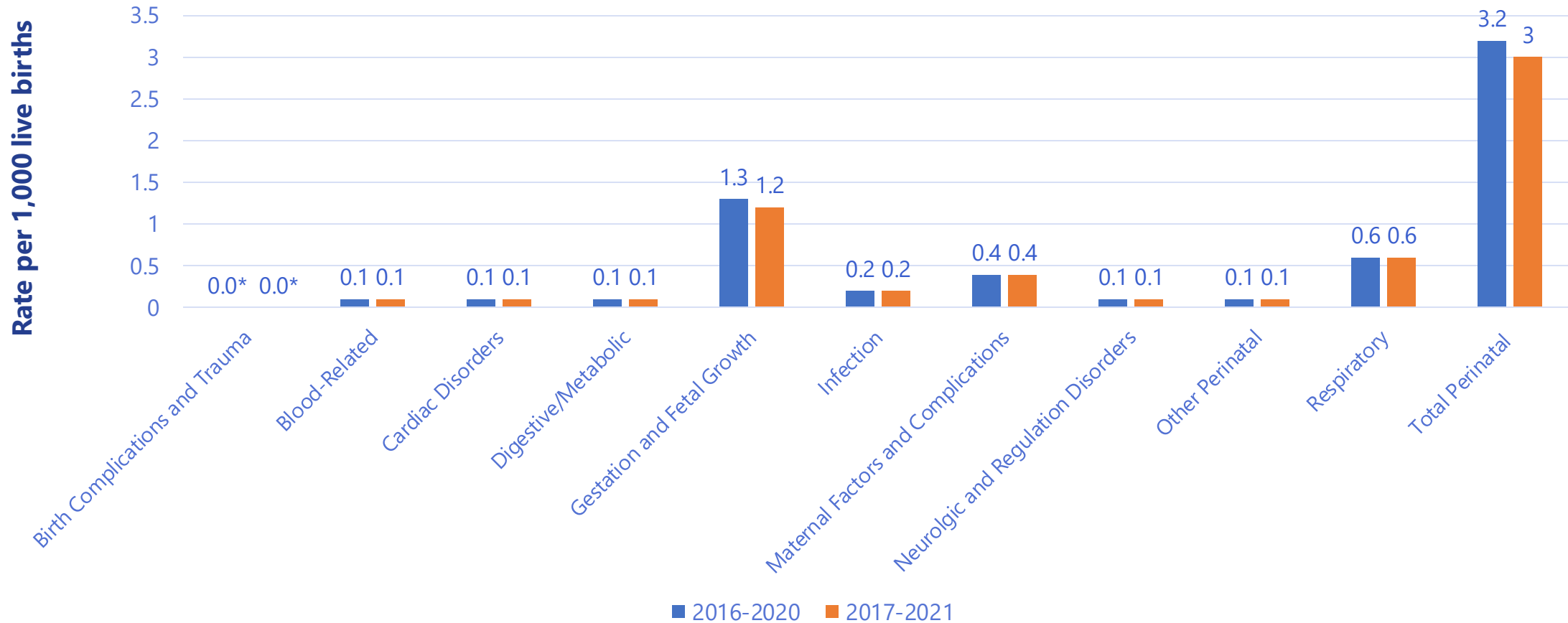
# Cause of death: five-year comparisons

Indiana IMR by cause of death



# Perinatal risks: five-year comparisons

## IMR for perinatal causes of death



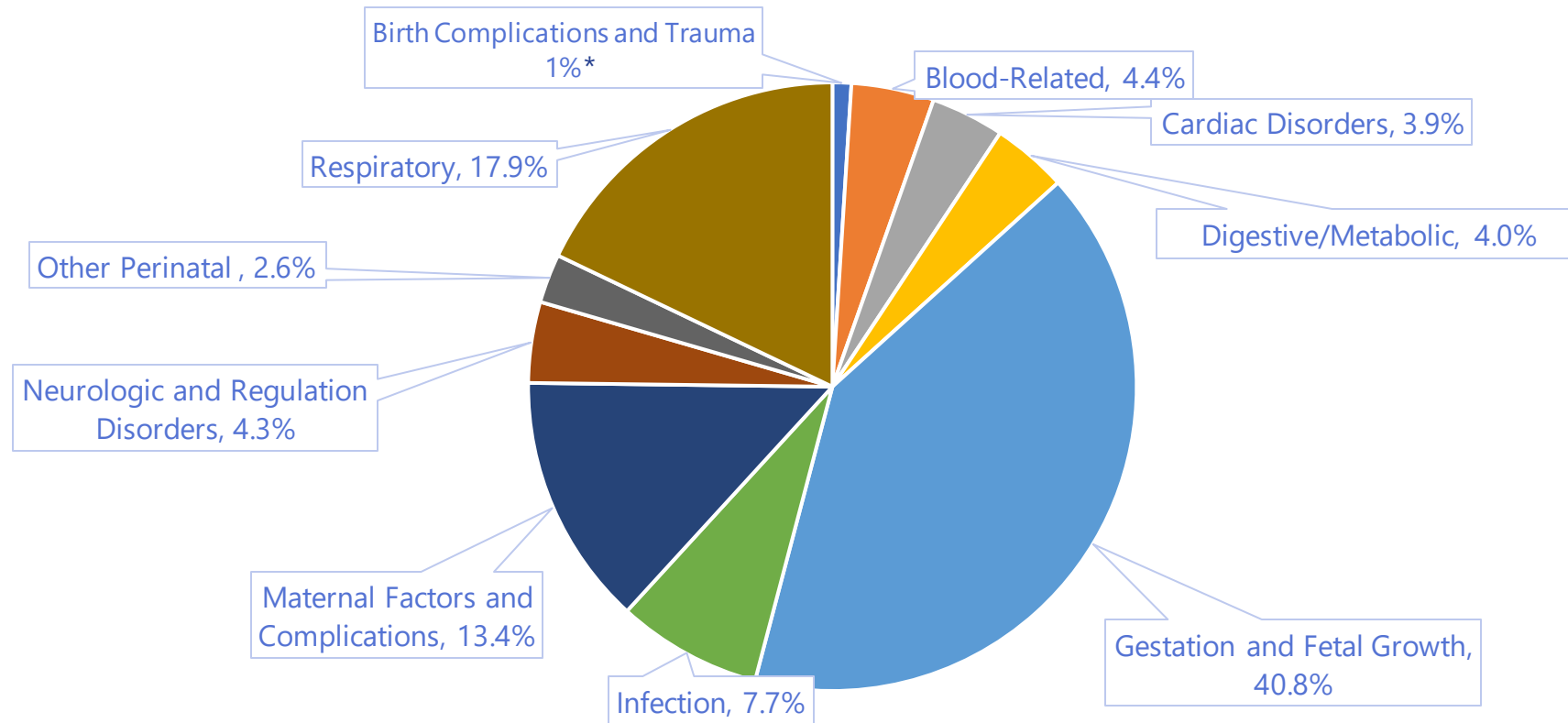
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Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [February 8, 2023]  
 Indiana Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team



# Perinatal risks: 2016-2020

## Perinatal causes of Indiana infant mortality, 2016-2020

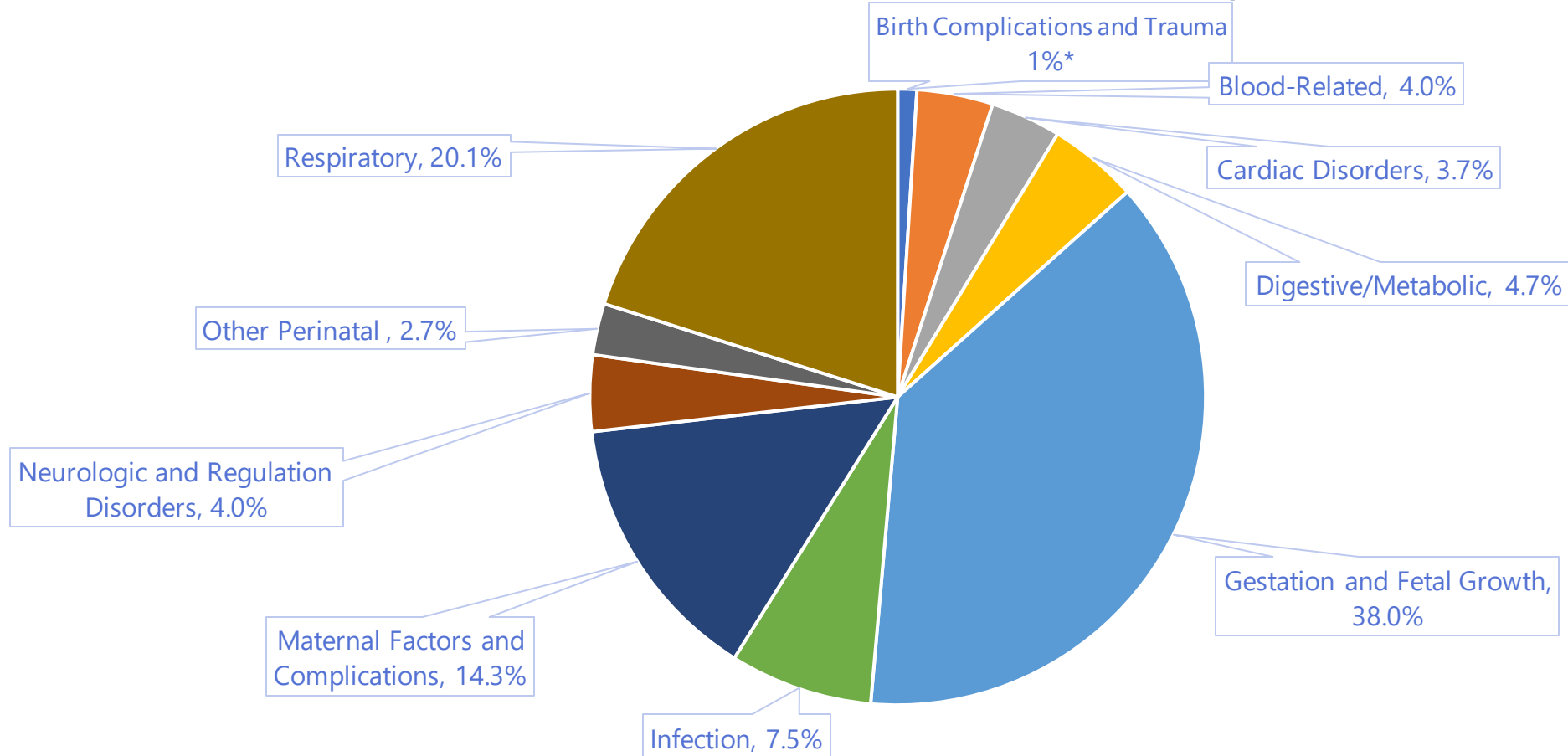


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Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [February 8, 2023]  
Indiana Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team

# Perinatal risks: 2017-2021

## Perinatal causes of Indiana infant mortality, 2017-2021

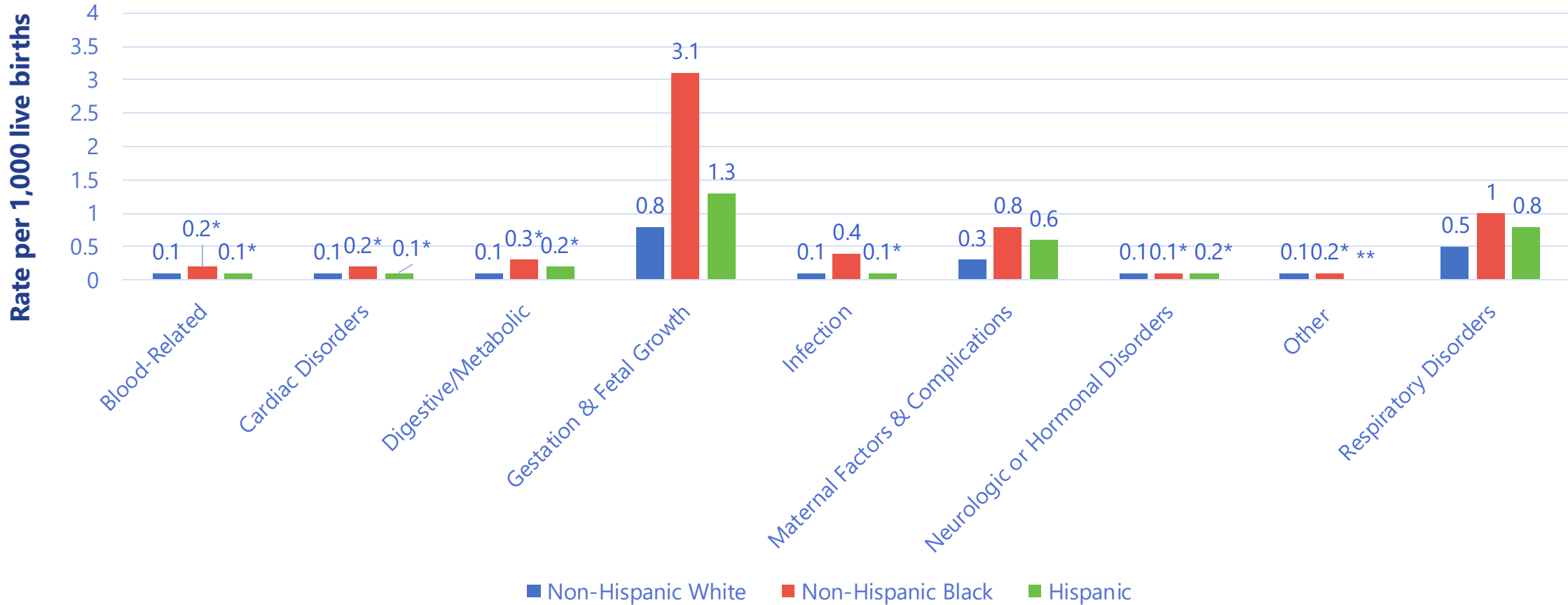


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Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [February 8, 2023]  
Indiana Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team

# IMR for perinatal risks by race/ethnicity

## Indiana IMR for perinatal risks by race/ethnicity 2017-2021



\* Rate is calculated with counts less than 20 and should be interpreted with caution.

\*\* Rate suppressed due to low counts

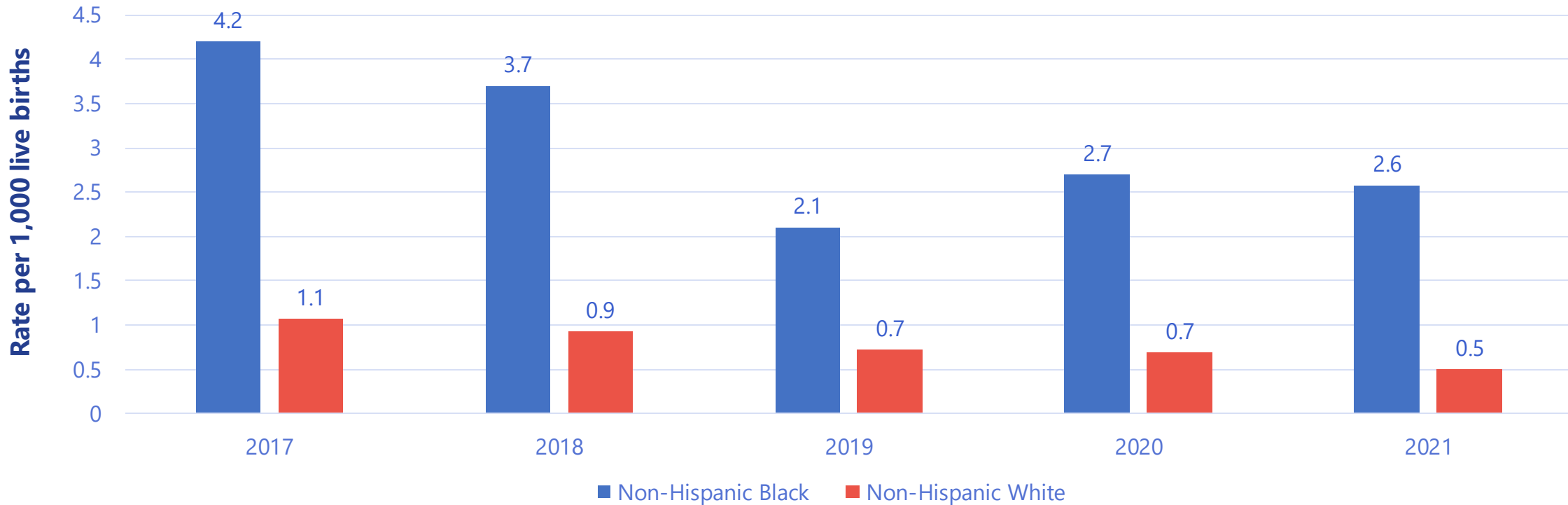


# Top select perinatal causes of death: 2017-2021 (n>15)

ICD-10 Code	N	Description
<b>Top Maternal Factors and Complications</b>		
P011	69	Premature rupture of membranes
P021	33	Placental separation and hemorrhage (excluding placenta previa)
P010	21	Incompetent cervix
P027	17	Chorioamnionitis
<b>Top Gestation and Fetal Growth Factors</b>		
P072	342	Extreme immaturity of newborn
P073	113	Preterm newborn
<b>Top Respiratory Factors</b>		
P280	59	Primary atelectasis
P220	65	Respiratory distress syndrome
P285	26	Respiratory failure

# Gestational and fetal growth factors

## IMR among non-Hispanic Black and non-Hispanic White populations for gestation and fetal growth factors



# Congenital anomalies

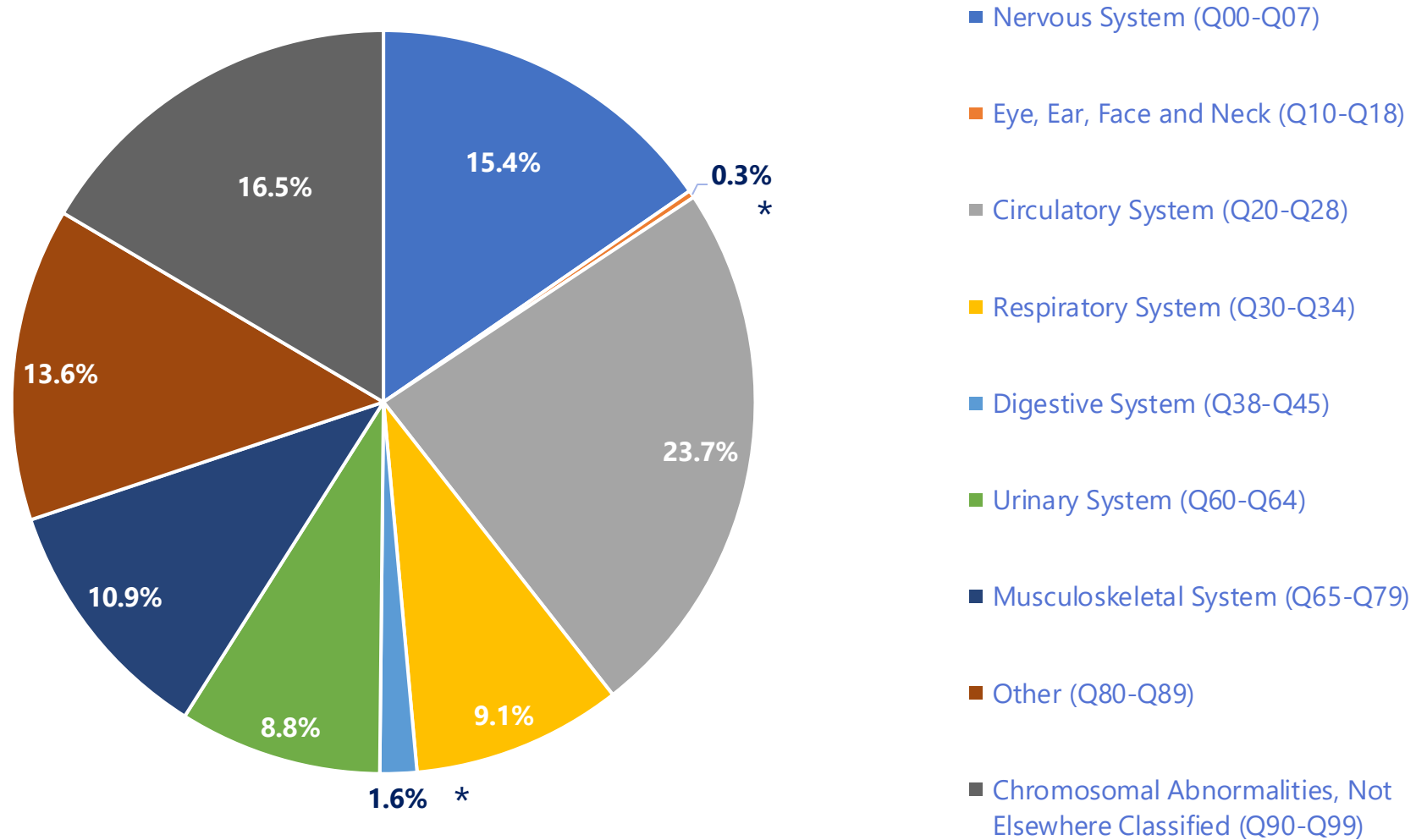


# Top causes of death related to congenital anomalies (n>20) 2017-2021

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1. Congenital malformation of heart, unspecified (Q249)
2. Anencephaly (Q000)
3. Trisomy 18, unspecified (Q913)
4. Congenital hypoplasia and dysplasia of lung (Q336)
5. Hypoplastic left heart syndrome (Q234)
6. Multiple congenital malformations, not elsewhere classified (Q897)
7. Trisomy 13, unspecified (Q917)
8. Congenital diaphragmatic hernia (Q790)
9. Congenital malformation, unspecified (Q899)

# Congenital malformations causes of death by ICD-10 groupings, 2017-2021



\* Percentage is based on counts less than 20 and should be interpreted with caution.

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [February 7, 2023]  
 Indiana Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team

**Assaults/injuries**



# Top assault/injury causes of death (n>5), 2017-2021

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ICD-10 Code	N	Code Description
W84	31	Unspecified threat to breathing
Y09	27	Unspecified assault
Y079	8	Other maltreatment syndromes by unspecified person
Y20	8	Hanging, strangulation, and suffocation, undetermined intent

**SUIDs**





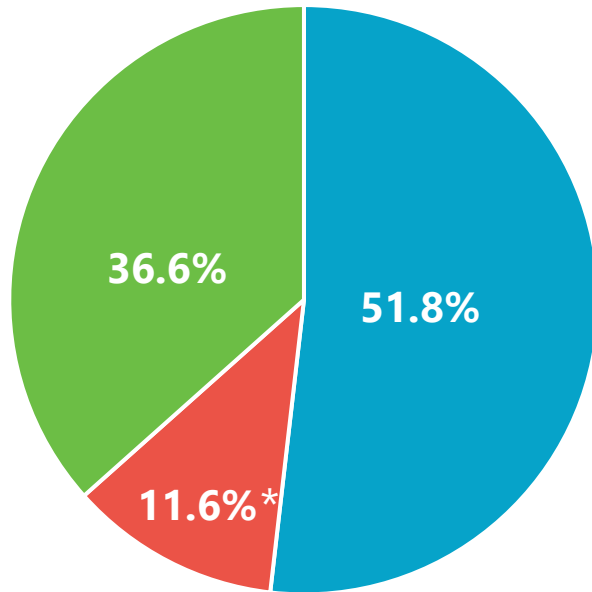
# Frequency of SUIDs Codes, 2017-2021

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ICD-10 Code	N	Code Description
R95	259	Sudden Infant Death Syndrome (SIDS)
R99	60	Unknown
W75	148	Accidental suffocation and strangulation in bed

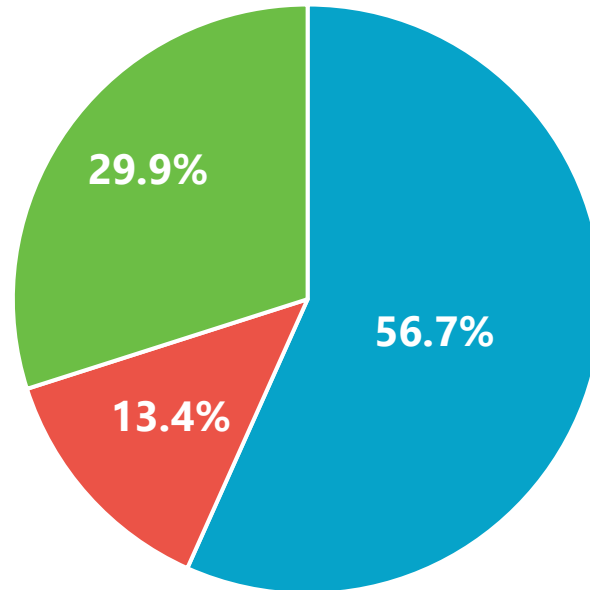
# Frequency of SUIDs codes by race/ethnicity, 2017-2021

Non-Hispanic Black



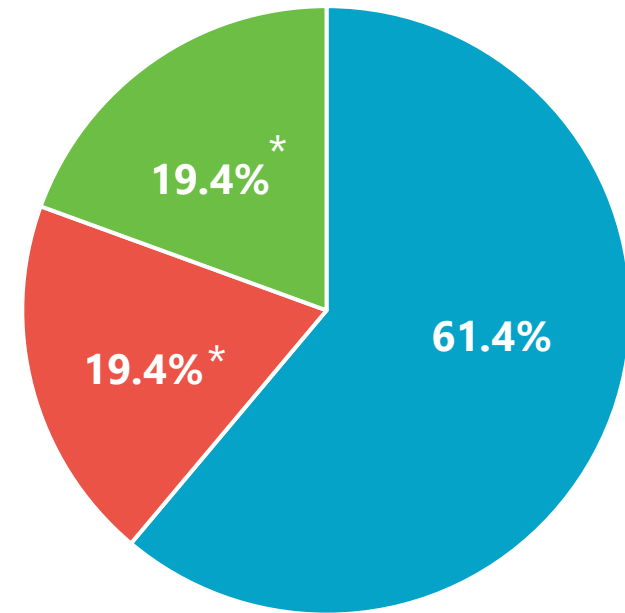
R95 SIDS

Non-Hispanic White



W75 Accidental Suffocation and Strangulation in Bed

Hispanic



R99 Unknown

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# Other causes of infant mortality



# Top “other” causes of death (n>5)

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## 2016-2020

1. Infectious gastroenteritis and colitis, unspecified (A090)
2. Sepsis, unspecified organism (A419)
3. Bronchopneumonia, unspecified organism (J180)
4. Other disorders of the lung (J984)
5. Other specified cerebrovascular diseases (I678)
6. Pneumonia, unspecified organism (J189)
7. Other secondary pulmonary hypertension (I272)
8. Interstitial pulmonary disease, unspecified (J849)

## 2017-2021

1. Infectious gastroenteritis and colitis, unspecified (A090)
2. Sepsis, unspecified organism (A419)
3. Bronchopneumonia, unspecified organism (J180)
4. Other specified cerebrovascular diseases (I678)
5. Other disorders of the lung (J984)
6. COVID-19 (U071)
7. Acute kidney failure, unspecified (N179)

# Questions?

## CONTACT:

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