INDIANA INFANT MORTALITY AND BIRTH OUTCOMES, 2022

MATERNAL & CHILD HEALTH EPIDEMIOLOGY

03/27/2024
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 details

• 2022 infant mortality is based on death records from 2022
  o These deaths encompass births that could have taken place in 2021 and 2022
  o These deaths encompass pregnancies that could have taken place from 2020-2022

• Infant mortality is calculated by taking the number of infant deaths divided by the number of live births for a given calendar year

• Both birth and infant death records are reported to the Indiana Department of Health Vital Records division

• This data is based on residency rather than location of occurrence
Infant mortality quick facts

- Infant Mortality is defined as the death of a baby before his/her first birthday.
- **Infant Mortality Rate** is an estimate of the number of infant deaths for every 1,000 live births.
- Infant Mortality is the **No. 1 indicator** of health status in the world.
Infant mortality in Indiana
Infant mortality in Indiana

• 577 Hoosier babies died before their 1st birthdays in 2022:
  • About 48 babies EVERY month
  • About 11 babies EVERY week

• More than 2,700 infant lives lost in the last 5 years:
  • Over 38 school buses at maximum capacity

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division (March 5, 2024)
Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team
Infant mortality rates (IMRs)
2013-2022

<table>
<thead>
<tr>
<th>Year</th>
<th>Indiana</th>
<th>U.S.</th>
<th>HP 2030 Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>7.1</td>
<td>6.0</td>
<td>5.0</td>
</tr>
<tr>
<td>2014</td>
<td>7.1</td>
<td>5.8</td>
<td>5.0</td>
</tr>
<tr>
<td>2015</td>
<td>7.3</td>
<td>5.9</td>
<td>5.0</td>
</tr>
<tr>
<td>2016</td>
<td>7.5</td>
<td>5.9</td>
<td>5.0</td>
</tr>
<tr>
<td>2017</td>
<td>7.3</td>
<td>5.8</td>
<td>5.0</td>
</tr>
<tr>
<td>2018</td>
<td>6.8</td>
<td>5.7</td>
<td>5.0</td>
</tr>
<tr>
<td>2019</td>
<td>6.5</td>
<td>5.6</td>
<td>5.0</td>
</tr>
<tr>
<td>2020</td>
<td>6.6</td>
<td>5.4</td>
<td>5.0</td>
</tr>
<tr>
<td>2021</td>
<td>6.7</td>
<td>5.4</td>
<td>5.0</td>
</tr>
<tr>
<td>2022</td>
<td>7.2</td>
<td>5.6</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [March 5, 2024]
United States Original Source: Centers for Disease Control and Prevention National Center for Health Statistics
Indiana Original Source: Indiana Department of Health, Vital Records, ODA, DAT
Infant mortality rates (IMRs)
2013-Preliminary 2023

Rate per 1,000 live births


7.1 7.1 7.3 7.5 7.3 6.8 6.5 6.6 6.7 6.7 7.2

6.0 5.8 5.9 5.9 5.8 5.7 5.6 5.4 5.4 5.6

Indiana U.S. HP 2030 Goal

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [March 25, 2024]
United States Original Source: Centers for Disease Control and Prevention National Center for Health Statistics
Indiana Original Source: Indiana Department of Health, Vital Records, ODA

Indiana Department of Health

Preliminary 2023 data as of 3/25/2024; subject to change
Infant mortality by race and ethnicity
2022

Rate per 1,000 live births

- Indiana: 7.2 (N = 577)
- Non-Hispanic Black: 14.1 (N = 140)
- Non-Hispanic White: 5.6 (N = 309)
- Hispanic: 7.9 (N = 78)
- Other/Unknown: 10.1 (N = 50)

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [March 5, 2024]
Indiana Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team
Infant mortality by geography
## Infant mortality by Indiana hospital region 2018-2022

<table>
<thead>
<tr>
<th>Region</th>
<th>Total</th>
<th>Non-Hispanic White</th>
<th>Non-Hispanic Black</th>
<th>Hispanic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central</td>
<td>6.7</td>
<td>5.2 (N = 393)</td>
<td>11.1 (N = 298)</td>
<td>6.1 (N = 92)</td>
</tr>
<tr>
<td>Central Southwestern</td>
<td>6.9</td>
<td>6.4 (N = 87)</td>
<td>13.3* (N = 7)</td>
<td>** (N&lt;5)</td>
</tr>
<tr>
<td>Eastern</td>
<td>7.6</td>
<td>6.9 (N = 159)</td>
<td>15.1 (N = 36)</td>
<td>6.1* (N = 8)</td>
</tr>
<tr>
<td>Midwestern</td>
<td>6.6</td>
<td>6.3 (N = 59)</td>
<td>** (N&lt;5)</td>
<td>7.5* (N = 11)</td>
</tr>
<tr>
<td>Northeastern</td>
<td>6.8</td>
<td>5.9 (N = 245)</td>
<td>16.0 (N = 68)</td>
<td>8.1 (N = 35)</td>
</tr>
<tr>
<td>Northern</td>
<td>8.0</td>
<td>6.1 (N = 162)</td>
<td>18.1 (N = 97)</td>
<td>7.6 (N = 54)</td>
</tr>
<tr>
<td>Northwest</td>
<td>6.4</td>
<td>4.4 (N = 81)</td>
<td>11.3 (N = 94)</td>
<td>6.6 (N = 49)</td>
</tr>
<tr>
<td>Southeastern</td>
<td>5.7</td>
<td>6.1 (N = 73)</td>
<td>** (N&lt;5)</td>
<td>** (N&lt;5)</td>
</tr>
<tr>
<td>Southern</td>
<td>6.2</td>
<td>6.0 (N = 142)</td>
<td>15.4* (N = 19)</td>
<td>8.0* (N = 19)</td>
</tr>
<tr>
<td>Southwest</td>
<td>6.2</td>
<td>5.3 (N = 122)</td>
<td>16.6 (N = 31)</td>
<td>5.5* (N = 8)</td>
</tr>
<tr>
<td>Western</td>
<td>6.8</td>
<td>5.7 (N = 96)</td>
<td>16.9 (N = 25)</td>
<td>10.0 (N = 23)</td>
</tr>
</tbody>
</table>

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

**Rates based on counts less than 5 have been suppressed.

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division (March 5, 2024)
Indiana Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team
Infant Mortality by County

2022
Per 1,000 Live Births

2018 - 2022
Per 1,000 Live Births

* Denotes unstable rate (<20 events)

Counties with less than 5 events are not labeled.

State: 7.2

State: 6.8

Data Source: IDOH MCH, DDA DAT, VR | Map Author: IDOH DDA PHG, March 2024
County-level Indiana infant mortality rates 2018 – 2022, stable rates

10 highest stable infant mortality rates
Grant, 9.4
Adams, 9.0
LaPorte, 8.9
Cass, 8.6
Noble, 8.5
St. Joseph, 8.1
Marion, 8.1
Marshall, 7.8
Madison, 7.7
Delaware, 7.6

Stable rates achieving Healthy People 2030 Goal (IMR<5.0)
Porter, 3.6
Clark, 4.5
Hamilton, 4.7
Hendricks, 4.7
Boone, 4.8

Infant Mortality Rates (IMRs) are per 1,000 live births. Stable rates are based on counts of at least 20.

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division (March 5, 2024)
Indiana Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team
## County-level Indiana infant mortality rates 2018-2022, Unstable Rates

**Top 10 unstable infant mortality rates***

<table>
<thead>
<tr>
<th>County</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switzerland</td>
<td>11.6</td>
</tr>
<tr>
<td>Fulton</td>
<td>11.4</td>
</tr>
<tr>
<td>Clay</td>
<td>10.0</td>
</tr>
<tr>
<td>Pulaski</td>
<td>9.6</td>
</tr>
<tr>
<td>Fountain</td>
<td>9.5</td>
</tr>
<tr>
<td>Fayette</td>
<td>9.4</td>
</tr>
<tr>
<td>Orange</td>
<td>9.4</td>
</tr>
<tr>
<td>Carroll</td>
<td>8.9</td>
</tr>
<tr>
<td>Jay</td>
<td>8.8</td>
</tr>
<tr>
<td>Spencer</td>
<td>8.8</td>
</tr>
</tbody>
</table>

**Unstable rates* achieving Healthy People 2030 Goal (IMR<5.0)**

<table>
<thead>
<tr>
<th>County</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dearborn</td>
<td>3.0</td>
</tr>
<tr>
<td>Dubois</td>
<td>3.5</td>
</tr>
<tr>
<td>Wells</td>
<td>3.6</td>
</tr>
<tr>
<td>Hancock</td>
<td>3.6</td>
</tr>
<tr>
<td>Whitley</td>
<td>3.8</td>
</tr>
<tr>
<td>Putnam</td>
<td>3.9</td>
</tr>
<tr>
<td>Harrison</td>
<td>4.4</td>
</tr>
<tr>
<td>Ripley</td>
<td>4.5</td>
</tr>
<tr>
<td>Posey</td>
<td>4.8</td>
</tr>
<tr>
<td>Miami</td>
<td>4.9</td>
</tr>
</tbody>
</table>

Infant Mortality Rates (IMRs) are per 1,000 live births. *Unstable rates are based on counts less than 20. Rates based on counts less than 5 are suppressed.
County Infant Mortality Rates Compared to the State 2018 - 2022

Per 1,000 Live Births

Low          High          Unstable

Only counties with stable rates are marked 'High' or 'Low' (>=20 events between 2018-2022).

Highest Stable Infant Mortality Rates

Grant, 9.4  St. Joseph, 8.1  Marion, 8.1  Marshall, 7.8  Madison, 7.7  Delaware, 7.6
Adams, 9.0
LaPorte, 8.9
Cass, 8.6
Noble, 8.5

Stable Rates Achieving Healthy People 2030 Goal (IMR<5.0)

Porter, 3.6
Clark, 4.5
Hendricks, 4.7
Hamilton, 4.7
Boone, 4.8

Data Source: IDOH MCH, ODA DAT, VR | Map Author: IDOH ODA PHG, March 2024
# County-level rates by race/ethnicity 2018 – 2022

## Stable non-Hispanic Black infant mortality rates
- LaPorte, 23.0
- Elkhart, 22.1
- Vanderburgh, 17.4
- Tippecanoe, 17.0
- Allen, 15.9
- St. Joseph, 15.5
- Lake, 11.5
- Marion, 11.4

## Stable Hispanic infant mortality rates
- Elkhart, 8.5
- Allen, 7.9
- Lake, 7.1
- Marion, 6.4

## Stable non-Hispanic White infant mortality rates*
- Adams, 9.7
- Noble, 8.4
- Grant, 8.3
- Wayne, 7.8
- Kosciusko, 7.4
- Madison, 6.9

Stable rates are based on counts of at least 20.
Infant Mortality Rates (IMRs) are per 1,000 live births.
*Rates only included if above the 6.8 state 2018-2022 IMR.
# Highest infant mortality rates by ZIP code
## 2018-2022

<table>
<thead>
<tr>
<th>ZIP Code</th>
<th>County</th>
<th>Births</th>
<th>Deaths</th>
<th>IMR</th>
<th>NH White IMR</th>
<th>NH Black IMR</th>
<th>Hispanic IMR</th>
</tr>
</thead>
<tbody>
<tr>
<td>46241</td>
<td>Marion</td>
<td>2,532</td>
<td>40</td>
<td>15.8</td>
<td>13.3*</td>
<td>22.5*</td>
<td>13.6*</td>
</tr>
<tr>
<td>46219</td>
<td>Marion</td>
<td>2,422</td>
<td>31</td>
<td>12.8</td>
<td>7.3*</td>
<td>24.1*</td>
<td>11.2*</td>
</tr>
<tr>
<td>46516</td>
<td>Elkhart</td>
<td>2,730</td>
<td>33</td>
<td>12.1</td>
<td>6.6*</td>
<td>34.4*</td>
<td>8.9*</td>
</tr>
<tr>
<td>46806</td>
<td>Allen</td>
<td>2,489</td>
<td>29</td>
<td>11.7</td>
<td>17.7*</td>
<td>17.3*</td>
<td>**</td>
</tr>
<tr>
<td>46628</td>
<td>St. Joseph</td>
<td>1,998</td>
<td>23</td>
<td>11.5</td>
<td>7.8*</td>
<td>16.1*</td>
<td>**</td>
</tr>
<tr>
<td>46222</td>
<td>Marion</td>
<td>3,078</td>
<td>35</td>
<td>11.4</td>
<td>**</td>
<td>23.0</td>
<td>3.7*</td>
</tr>
<tr>
<td>46410</td>
<td>Lake</td>
<td>2,118</td>
<td>23</td>
<td>10.9</td>
<td>**</td>
<td>15.9*</td>
<td>**</td>
</tr>
<tr>
<td>46218</td>
<td>Marion</td>
<td>2,514</td>
<td>26</td>
<td>10.3</td>
<td>**</td>
<td>10.8*</td>
<td>13.5*</td>
</tr>
<tr>
<td>46514</td>
<td>Elkhart</td>
<td>2,760</td>
<td>28</td>
<td>10.1</td>
<td>8.2*</td>
<td>23.0*</td>
<td>11.8*</td>
</tr>
<tr>
<td>46360</td>
<td>Laporte</td>
<td>2,574</td>
<td>26</td>
<td>10.1</td>
<td>5.4*</td>
<td>20.7*</td>
<td>**</td>
</tr>
</tbody>
</table>

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

**Rates based on counts less than 5 have been suppressed.

- This table is sorted by overall infant mortality rate in descending order with Zip Code 46241 in Marion County having the highest IMR at 15.8.
- The IMRs by race and ethnicity are not listed in descending order. For example, Zip Code 46516 in Elkhart County has the highest Non-Hispanic Black IMR at 34.4*.

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [March 5, 2024]
Indiana Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team
Cause-specific infant mortality
Causes of Indiana infant mortality

Infant Mortality Rates (IMRs) are per 1,000 live births.

Cause-specific IMRs may not add up to the overall IMR for each year due to rounding.

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [March 5, 2024]
Indiana Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team
2022 cause-Specific IMR by race/ethnicity

Perinatal risks account for the largest number of infant deaths. The non-Hispanic Black perinatal risks rate is almost the same as Indiana’s overall IMR for all causes. SUIDs are the third leading cause of infant deaths in Indiana but the second leading cause among non-Hispanic Black infants.

<table>
<thead>
<tr>
<th>Group</th>
<th>IMR</th>
<th>Infant Mortality Rates (IMRs) are per 1,000 live births.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indiana</td>
<td>7.2</td>
<td>Cause-specific IMRs may not add up to the overall IMR for each group due to rounding.</td>
</tr>
<tr>
<td>NH Black</td>
<td>14.1</td>
<td>* Rates based on counts fewer than 20 are considered unstable and should be interpreted with caution.</td>
</tr>
<tr>
<td>NH White</td>
<td>7.9</td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>10.1</td>
<td></td>
</tr>
<tr>
<td>Other and Unknown</td>
<td>20.1</td>
<td></td>
</tr>
</tbody>
</table>

* Rates based on counts fewer than 20 are considered unstable and should be interpreted with caution.

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division (January 11, 2024)
Causes of Indiana NH Black infant mortality

Infant Mortality Rates (IMRs) are per 1,000 live births.

Cause-specific IMRs may not add up to the overall IMR for each year due to rounding.

* Rates based on counts fewer than 20 are considered unstable and should be interpreted with caution.

NH = Non-Hispanic

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division (March 5, 2024)
Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team
Causes of Indiana non-Hispanic White infant mortality

Infant Mortality Rates (IMRs) are per 1,000 live births.

Cause-specific IMRs may not add up to the overall IMR for each year due to rounding.

* Rates based on counts fewer than 20 are considered unstable and should be interpreted with caution.

NH = Non-Hispanic

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division (March 5, 2024)
Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team
Causes of Indiana Hispanic infant mortality

Infant Mortality Rates (IMRs) are per 1,000 live births.

Cause-specific IMRs may not add up to the overall IMR for each year due to rounding.

* Rates based on counts fewer than 20 are considered unstable and should be interpreted with caution.

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division (March 5, 2024)
Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team
There has been a change in the NCHS classification of race, which resulted in the creation of a multi-race variable. Due to that change, some infant deaths that were previously reported in other race and ethnicity categories are now in the “other/unknown” category.

“Other” also includes Indian, Chinese, Japanese, Hawaiian, Filipino, other Asian or Pacific Islander, and other races that are not already described in the categories listed.
SUIDs rates by race and ethnicity
Indiana, 2013-2022

*SUIDS = W75 (Accidental Suffocation and Strangulation in Bed), R95 (Sudden Infant Death Syndrome/SIDS), R99 (Unknown)
Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [March 5, 2024]
Indiana Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team

*Rates based on counts less than 20 are considered unstable and should be interpreted with caution.
Sudden Unexpected Infant Deaths
By Hospital Region
2018 - 2022

Per 100,000 Live Births

* Denotes unstable rate (<20 events)
Data Source: IDOH MCH, ODA DAT, VR | Map Author: IDOH ODA PHG, March 2024

State:
116.1
Infant mortality by age
2022 infant deaths by age

N = 577
Total neonatal = 376
Total post-neonatal = 201

65.2% of Indiana infant deaths occurred during the neonatal (0-27 days) period

Over 6 Months: 4.9%
28 Days – 6 Months: 30.0%
8 Days – 27 Days: 13.2%
25 Hours – 7 Days: 12.5%
Birth – 1 Day: 39.5%

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [March 5, 2024]
Indiana Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team

Neonatal = 0-27 days
Post-neonatal = 28-364 days
Time-specific percentages may not add up to 100% overall due to rounding.
Causes of infant mortality by age
Indiana 2022

Neonatal
- Perinatal Risks 71.5%
- Congenital Anomalies 18.4%
- SUIDs 5.3%
- Assualts & Injuries 1.1%*
- Other 3.7%*

Post - neonatal
- SUIDs 38.8%
- Congenital Anomalies 15.4%
- Other 27.9%
- Perinatal Risks 8.5%*
- Assualts & Injuries 9.5%*

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

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [March 5, 2024]
Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team
Over 40% of Indiana SUIDs occurred between the age of 1 month and 3 months.
Contributing factors to infant mortality
Factors contributing to infant mortality
Indiana 2022

• **Obesity**
  - Indiana ranks 12th highest in the U.S. for percentage of adults who have obesity (36.3% of adults)
  - 35.6% of Indiana births in 2022 were to pregnant women who have obesity (additional 26.1% overweight)
  - Pregnant women who have obesity have an increased risk of preterm birth (13.0% of Indiana births to those who have obesity were preterm compared to 9.4% of births to those in the normal BMI range)

• **Smoking**
  - 6.6% of births exposed to smoking during pregnancy
  - 12.2% of births to women on Medicaid were exposed to smoking during pregnancy while 2.6% of births to women not on Medicaid were exposed to smoking

• **Limited prenatal care**
  - 29.1% of births were to women not receiving prenatal care during the 1st trimester (a statistically significant increase compared to 2021)

• **Unsafe sleep practices**
  - 17.0% of infant deaths in 2022 can be attributed to SUIDs

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division (March 5, 2024)
Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team
Self-reported demographics
Indiana 2022

• **Average age** = 28 years (Range: 12 - 64)

• **Education**
  o 14.7% have less than a high school diploma
  o 29.2% have a high school diploma or GED
  o 17.2% have some college education, but no degree
  o 38.8% have an associate’s degree or higher

• **Income** – 41.1% of births to mothers on Medicaid
  o Medicaid Reports – 52.1%

• **Marital Status** – 56.1% to married parents

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division (March 27, 2024)
Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team
Births Covered by Medicaid

2022
Percent of Live Births

2018 – 2022
Percent of Live Births

5-Year Change
2022 Rates Subtracted by 2018 Rates

Only stable county percentages are labeled (>20 events). Counties with less than 5 events are suppressed.

Data Source: ODH MCH, ODA DAT, VR | Map Author: ODH ODA PHG, March 2024
Age-specific birth rates for teens, Indiana and U.S., 2013-2022

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [March 5, 2024]
Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team
Birth outcomes
Indiana birth outcomes

<table>
<thead>
<tr>
<th>Measure</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preterm (&lt; 37 weeks gestation)</td>
<td>10.4%</td>
<td>10.9%</td>
<td>10.9%</td>
</tr>
<tr>
<td>Low birthweight (&lt; 2500 g)</td>
<td>8.1%</td>
<td>8.4%</td>
<td>8.7%</td>
</tr>
<tr>
<td>Very low birthweight (&lt; 1500 g)</td>
<td>1.4%</td>
<td>1.3%</td>
<td>1.4%</td>
</tr>
<tr>
<td>No early prenatal care (first trimester)</td>
<td>30.7%</td>
<td>28.3%</td>
<td>29.1%</td>
</tr>
<tr>
<td>Teen pregnancy</td>
<td>5.3%</td>
<td>4.9%</td>
<td>4.7%</td>
</tr>
<tr>
<td>Breastfeeding (at discharge)</td>
<td>82.0%</td>
<td>81.4%</td>
<td>83.9%</td>
</tr>
</tbody>
</table>

Percentages are significantly different than the previous year at 0.05 level.

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division (March 5, 2024)
Indiana Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team
### 2022 birth outcomes by race and ethnicity

<table>
<thead>
<tr>
<th>Measure</th>
<th>Indiana</th>
<th>Non-Hispanic Black</th>
<th>Non-Hispanic White</th>
<th>Hispanic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preterm (&lt; 37 weeks gestation)</td>
<td>10.9%</td>
<td>15.0%</td>
<td>10.3%</td>
<td>10.7%</td>
</tr>
<tr>
<td>Low birthweight (&lt; 2500 g)</td>
<td>8.7%</td>
<td>15.1%</td>
<td>7.6%</td>
<td>8.1%</td>
</tr>
<tr>
<td>Very low birthweight (&lt; 1500 g)</td>
<td>1.4%</td>
<td>3.0%</td>
<td>1.1%</td>
<td>1.3%</td>
</tr>
<tr>
<td>No early prenatal care (first trimester)</td>
<td>29.1%</td>
<td>42.9%</td>
<td>23.4%</td>
<td>44.4%</td>
</tr>
<tr>
<td>Teen pregnancy</td>
<td>4.7%</td>
<td>6.8%</td>
<td>3.8%</td>
<td>7.9%</td>
</tr>
<tr>
<td>Breastfeeding (at discharge)</td>
<td>83.9%</td>
<td>77.5%</td>
<td>84.6%</td>
<td>86.0%</td>
</tr>
</tbody>
</table>

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division (March 5, 2024)
Indiana Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team
Percentage of preterm (obstetric estimate < 37 weeks) Indiana, U.S. and Healthy People Goals, 2013-2022

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Indiana</td>
<td>9.6</td>
<td>9.7</td>
<td>9.6</td>
<td>10.0</td>
<td>9.9</td>
<td>10.2</td>
<td>10.1</td>
<td>10.4</td>
<td>10.9</td>
<td>10.9</td>
</tr>
<tr>
<td>United States</td>
<td>9.6</td>
<td>9.6</td>
<td>9.6</td>
<td>9.9</td>
<td>9.9</td>
<td>10.0</td>
<td>10.2</td>
<td>10.1</td>
<td>10.5</td>
<td>10.4</td>
</tr>
<tr>
<td>Healthy People 2030</td>
<td>9.4</td>
<td>9.4</td>
<td>9.4</td>
<td>9.4</td>
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<td>9.4</td>
<td>9.4</td>
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<td>9.4</td>
</tr>
</tbody>
</table>

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [March 5, 2024]
United States Original: Centers for Disease Control and Prevention National Center for Health Statistics
Indiana Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team
Percentage of preterm (obstetric estimate < 37 weeks) Indiana by race and ethnicity, 2013-2022

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [March 5, 2024]
Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team
Preterm Births

2022
Percent of Live Births

2018 – 2022
Percent of Live Births

5-Year Change
2022 Rates Subtracted by 2018 Rates

Only stable county percentages are labeled (≥20 events). Counties with less than 5 events are suppressed.

Data Source: IDOH MCH, ODA DAE, VR | Map Author: IDOH ODA PNG, March 2024
Percentage of low birthweight (< 2,500 grams)
Indiana, U.S. and Healthy People goal, 2013-2022

<table>
<thead>
<tr>
<th>Year</th>
<th>United States</th>
<th>Indiana</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>8.0</td>
<td>7.9</td>
</tr>
<tr>
<td>2014</td>
<td>8.0</td>
<td>8.0</td>
</tr>
<tr>
<td>2015</td>
<td>8.1</td>
<td>8.0</td>
</tr>
<tr>
<td>2016</td>
<td>8.2</td>
<td>8.2</td>
</tr>
<tr>
<td>2017</td>
<td>8.3</td>
<td>8.3</td>
</tr>
<tr>
<td>2018</td>
<td>8.3</td>
<td>8.1</td>
</tr>
<tr>
<td>2019</td>
<td>8.3</td>
<td>8.2</td>
</tr>
<tr>
<td>2020</td>
<td>8.2</td>
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<td>2021</td>
<td>8.5</td>
<td>8.4</td>
</tr>
<tr>
<td>2022</td>
<td>8.6</td>
<td>8.7</td>
</tr>
</tbody>
</table>

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division (March 5, 2024)
United States Original: Centers for Disease Control and Prevention National Center for Health Statistics
Indiana Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team
Percentage of low birthweight (< 2,500 grams) Indiana by Race and Ethnicity, 2013-2022

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [March 5, 2024]
Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team
Low Birth Weight Births

2022
Percent of Live Births

2018 – 2022
Percent of Live Births

5-Year Change
2022 Rate Subtracted by 2018 Rate

Only stable county percentages are labeled (>=20 events). Counties with less than 5 events are suppressed.

Data Source: IDOH MCH, ODA DAT, VR | Map Author: IDOH ODA PHE, March 2024
Percentage of very low birthweight (< 1,500 grams) Indiana, U.S. and Healthy People Goal, 2013-2022

<table>
<thead>
<tr>
<th>Year</th>
<th>United States</th>
<th>Indiana</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>1.4</td>
<td>1.4</td>
</tr>
<tr>
<td>2014</td>
<td>1.4</td>
<td>1.4</td>
</tr>
<tr>
<td>2015</td>
<td>1.4</td>
<td>1.5</td>
</tr>
<tr>
<td>2016</td>
<td>1.4</td>
<td>1.5</td>
</tr>
<tr>
<td>2017</td>
<td>1.4</td>
<td>1.4</td>
</tr>
<tr>
<td>2018</td>
<td>1.4</td>
<td>1.4</td>
</tr>
<tr>
<td>2019</td>
<td>1.3</td>
<td>1.3</td>
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<tr>
<td>2020</td>
<td>1.4</td>
<td>1.4</td>
</tr>
<tr>
<td>2021</td>
<td>1.4</td>
<td>1.3</td>
</tr>
<tr>
<td>2022</td>
<td>1.4</td>
<td>1.4</td>
</tr>
</tbody>
</table>

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [March 5, 2024]
United States Original: Centers for Disease Control and Prevention National Center for Health Statistics
Indiana Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team
Percentage of very low birthweight (< 1,500 grams) Indiana by Race and Ethnicity, 2013-2022

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [March 5, 2024]
Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team
Very Low Birth Weight Births

2022
Percent of Live Births

2018 – 2022
Percent of Live Births

5-Year Change
2018 Rates Subtracted by 2022 Rates

Only stable county percentages are labeled (>=20 events). Counties with less than 5 events are suppressed.

Data Source: IDOH MCH, ODA Data, VR | Map Author: IDOH ODA PVG, March 2024
Low birthweight and preterm by BMI
Indiana 2022

Low Birthweight = < 2,500 grams  
Preterm = Gestation < 37 weeks

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [March 5, 2024]
Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team
2021 and 2022 smoking during pregnancy

- 2022 births exposed to **cigarette smoking during pregnancy**: 6.6%
  - 2021 births exposed to cigarette smoking during pregnancy: 9.0%

- The smoking variable has changed in the way that is collected, and as such these percentages should not be compared with previous years.

- We attempted to calculate a more complete statistic for people who had smoked during pregnancy using new variables that had been added to our data. However, we determined that these newer variables are not currently ready for reporting.

- For this reason, we have decided to revert to our method of reporting before our DRIVE transition. This means that smoking during pregnancy is calculated using variables for each trimester indicating whether the person had smoked during that trimester.
  - Due to the nature of this variable, it is possible that this percentage is an under representation of the true smoking during pregnancy percentage.
Smoking during pregnancy in Indiana by race and ethnicity, 2022

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [March 5, 2024]
Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team
Smoking During Pregnancy
Indiana, By County
2022

Percent of Live Births

Mean County Rate

-1.5  -0.5  +0.5  +1.5

Standard Deviations

* Denotes unstable rate (<20 events)

Data Source: IDOH MCH, ODA DAT, VR | Map Author: IDOH ODA PHG, March 2024

State:
6.6 %
Low birthweight and preterm by smoking status, Indiana 2022

Low Birthweight = < 2,500 grams  Preterm = Gestation < 37 weeks

<table>
<thead>
<tr>
<th>Condition</th>
<th>Smoking During Pregnancy</th>
<th>Not Smoking During Pregnancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Birthweight</td>
<td>11.6%</td>
<td>87.4%</td>
</tr>
<tr>
<td>Not Low Birthweight</td>
<td>6.1%</td>
<td>93.3%</td>
</tr>
<tr>
<td>Preterm</td>
<td>8.9%</td>
<td>90.4%</td>
</tr>
<tr>
<td>Not Preterm</td>
<td>6.3%</td>
<td>93.1%</td>
</tr>
</tbody>
</table>

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division (March 5, 2024)
Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team
Percentage receiving PNC first trimester
Indiana, U.S. and Healthy People Goal, 2013-2022

<table>
<thead>
<tr>
<th>Year</th>
<th>United States</th>
<th>Indiana</th>
<th>Healthy People 2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>74.2</td>
<td>67.4</td>
<td>80.5</td>
</tr>
<tr>
<td>2014</td>
<td>76.7</td>
<td>67.5</td>
<td>80.5</td>
</tr>
<tr>
<td>2015</td>
<td>77.0</td>
<td>69.3</td>
<td>80.5</td>
</tr>
<tr>
<td>2016</td>
<td>77.1</td>
<td>69.3</td>
<td>80.5</td>
</tr>
<tr>
<td>2017</td>
<td>77.3</td>
<td>68.6</td>
<td>80.5</td>
</tr>
<tr>
<td>2018</td>
<td>77.5</td>
<td>68.1</td>
<td>80.5</td>
</tr>
<tr>
<td>2019</td>
<td>77.6</td>
<td>68.9</td>
<td>80.5</td>
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<tr>
<td>2020</td>
<td>77.7</td>
<td>69.3</td>
<td>80.5</td>
</tr>
<tr>
<td>2021</td>
<td>78.3</td>
<td>71.7</td>
<td>80.5</td>
</tr>
<tr>
<td>2022</td>
<td>77.0</td>
<td>70.9</td>
<td>80.5</td>
</tr>
</tbody>
</table>

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division (March 5, 2024)
United States Original: Centers for Disease Control and Prevention National Center for Health Statistics
Indiana Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team
Percentage receiving PNC first trimester
Indiana by race and ethnicity, 2013-2022

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [March 5, 2024]
Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team
No Early Prenatal Care

2022
Percent of Live Births

2018 – 2022
Percent of Live Births

5-Year Change
2022 Rates Subtracted by 2018 Rates

Only stable county percentages are labeled (≥20 events). Counties with less than 5 events are suppressed.

Data Source: IDOH MCH, ODA DAE, VR | Map Author: IDOH ODA PHE, March 2024
First trimester PNC by insurance type
Indiana 2022

% of Births to Mothers Receiving Early PNC

<table>
<thead>
<tr>
<th>Insurance Type</th>
<th>% of Births</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private</td>
<td>82.0</td>
</tr>
<tr>
<td>Other</td>
<td>75.1</td>
</tr>
<tr>
<td>Champus/Triare</td>
<td>73.9</td>
</tr>
<tr>
<td>Other Government</td>
<td>71.3</td>
</tr>
<tr>
<td>Medicaid</td>
<td>60.5</td>
</tr>
<tr>
<td>Unknown</td>
<td>53.3</td>
</tr>
<tr>
<td>Indian Health Service</td>
<td>44.8*</td>
</tr>
<tr>
<td>Self-Pay</td>
<td>43.2</td>
</tr>
</tbody>
</table>

PNC = Prenatal Care

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

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division (March 5, 2024)
Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team
Low birthweight and preterm by prenatal care
Indiana 2022

<table>
<thead>
<tr>
<th>Prenatal Care</th>
<th>Low Birthweight</th>
<th>Not Low Birthweight</th>
<th>Preterm</th>
<th>Not Preterm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early PNC</td>
<td>28.7%</td>
<td>26.8%</td>
<td>26.2%</td>
<td>27.1%</td>
</tr>
<tr>
<td>Late PNC</td>
<td>5.0%</td>
<td>1.7%</td>
<td>4.9%</td>
<td>1.6%</td>
</tr>
<tr>
<td>No Prenatal Care</td>
<td>66.3%</td>
<td>71.5%</td>
<td>68.9%</td>
<td>71.3%</td>
</tr>
</tbody>
</table>

Early PNC = 1st trimester
Late PNC = After the 1st trimester

Low Birthweight = < 2,500 grams
Preterm = Gestation < 37 weeks

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division (March 5, 2024)
Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team
Low birthweight and preterm by insurance
Indiana 2022

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [March 5, 2024]
Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team

Low Birthweight = < 2,500 grams     Preterm = Gestation < 37 weeks
Percentage of infants breastfed at hospital discharge Indiana, and U.S., 2013-2022

<table>
<thead>
<tr>
<th>Year</th>
<th>United States</th>
<th>Indiana</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>78.8</td>
<td>77.3</td>
</tr>
<tr>
<td>2014</td>
<td>81.0</td>
<td>79.3</td>
</tr>
<tr>
<td>2015</td>
<td>82.1</td>
<td>80.5</td>
</tr>
<tr>
<td>2016</td>
<td>83.1</td>
<td>80.9</td>
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<tr>
<td>2017</td>
<td>83.4</td>
<td>81.9</td>
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<tr>
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<td>81.9</td>
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<td>2021</td>
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<td>81.4</td>
</tr>
<tr>
<td>2022</td>
<td>85.2</td>
<td>83.9</td>
</tr>
</tbody>
</table>

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division (March 5, 2024)
United States Original: Centers for Disease Control and Prevention National Center for Health Statistics
Indiana Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team
Percentage of infants breastfed at hospital discharge in Indiana by race and ethnicity, 2013-2022

Source: Indiana Department of Health, Maternal & Child Health Epidemiology Division [March 5, 2024]
Original Source: Indiana Department of Health, Vital Records, ODA, Data Analysis Team
2022 summary

• 577 infants in Indiana died before their first birthday
• Perinatal risks are the primary cause of infant mortality in Indiana
• More than 17% of infant deaths can be attributed to SUIDs
• Preterm births have been increasing in recent years and remained stable between 2021 and 2022
• Lower percentages of early prenatal care when compared to the U.S., which varies by race/ethnicity and insurance coverage
• Large disparities in all outcomes make prevention efforts complex