Infant Mortality

- Death <1 year of age
- Widely used measure of the health of a population
Infant Mortality Rate

\[
\text{Infant Mortality Rate} = \frac{\text{Number of infant deaths}}{\text{Number of live births}} \times 1000
\]

Source of data--Death certificates

Source of data--Birth certificates

A Brief History of Infant Mortality Statistics in North Carolina
2013: NC Vital Records/Statistics Centennial

1913: N.C. General Assembly created the Bureau of Vital Statistics

On A Typical Day in N.C.

<table>
<thead>
<tr>
<th>1914</th>
<th>vs.</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>197</td>
<td>Live Births</td>
<td>328</td>
</tr>
<tr>
<td>18</td>
<td>Infant Deaths</td>
<td>2</td>
</tr>
<tr>
<td>1.43</td>
<td>Maternal Deaths</td>
<td>0.13</td>
</tr>
</tbody>
</table>

N.C. Resident Birth and Infant Death Rates 1914-2012

Source: North Carolina State Center for Health Statistics, Live Birth & Death Certificates

Did you know?

Infant Deaths per 1,000 births...

1914

90.3
(per 1,000 births)

2012

7.4
(per 1,000 births)

Source: NC DHHS Blog - http://blog.ncdhhs.gov/

Celebrating 100 years
North Carolina Vital Records
North Carolina has historically had a higher infant mortality rate than the U.S. average.

Infant Mortality Rates: 1975-2012

Note: U.S. Rates for 2011 are Provisional, 2012 U.S. rates are not available.

Source: NC State Center for Health Statistics & CDC/National Center for Health Statistics
North Carolina’s Infant Mortality is currently ranked 15th highest in the U.S.
Despite declines in N.C. Infant Mortality overall, racial disparities in infant mortality persist
Figure 1: NC Resident Infant Mortality Rates, 1993-2012

Source: State Center for Health Statistics


Source: State Center for Health Statistics
### Progress towards Healthy North Carolina 2020 Goals

**Reduce the infant mortality racial disparity between whites and African Americans**

<table>
<thead>
<tr>
<th></th>
<th>2008 Baseline</th>
<th>2012 Current</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline (2008)</td>
<td>2.45</td>
<td>2.53 (2011 – 2.35)</td>
<td>1.92</td>
</tr>
</tbody>
</table>

**Reduce the overall infant mortality rate**

<table>
<thead>
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<th></th>
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</table>

Most infant deaths occur during the neonatal period (first 28 days after birth)
What are the leading causes of infant death?

Leading Causes of Infant Death in North Carolina, 2012

- Prematurity/Low Birth Weight: 24%
- Birth Defects: 21%
- Other Perinatal Conditions: 20%
- Other Unknown Causes: 10%
- All Other Causes: 9%
- SIDS: 3%
- Infections: 4%
- Respiratory Injuries: 4%
- Unintentional Injuries: 4%
- Homicide: 1%

Source: State Center for Health Statistics
Geographic Differences in Infant Mortality & related indicators

North Carolina Infant Mortality Rates by County
2008 - 2012

Rates Per 1,000 Live Births
- 13 - 15.3
- 15.4 - 17.6
- 17.7 - 11.0
- 11.1 - 18.5

* Rates based on less than 30 deaths are unreliable and should be interpreted with caution.
North Carolina 2012 Infant Mortality Rates by Perinatal Care Regions

North Carolina White Infant Mortality Rates by Perinatal Care Regions 2008-2012
Trends in Related Birth Data
To Recap

- Dramatic declines in infant mortality rate since 1914
- Rates have stagnated since 2010
- Historically, NC rate higher than US & large disparity b/t NH White & NH Af Am rates
- Most of increase in last two years due to increase in postneonatal deaths

Recap Cont.

- Prematurity/Low birthweight, birth defects & other perinatal conditions are primary cause for 60% of all infant deaths
- Eastern region of state has highest infant mortality rates
- Highest infant mortality disparities in northeastern & southwestern sections of state.
- Rates of Low Birthweight & Preterm both declined slightly from 2010 to 2012
Have questions or need more data?

State Center for Health Statistics website:
http://www.schs.state.nc.us/

Kathleen Jones-Vessey
Phone: 919-715-9692
Email: Kathleen.Jones-Vessey@dhhs.nc.gov