Childhood Injuries & Deaths: NC age 0-17

Child Fatality Task Force
Unintentional Death Committee
Nov 10, 2015
Agenda

- Drownings- fatal/nonfatal overview
- Fire/Burn- fatal/nonfatal overview
- Firearms- fatal/nonfatal overview
- Transportation- fatal/nonfatal overview

Analyses by the NC Injury and Violence Prevention Branch.
Death and Hospital Data Source: NC State Center for Health Statistics.
Data Attribution and Disclaimer: NC DETECT is an advanced, statewide public health surveillance system, funded by the NC Division of Public Health (NC DPH) Federal Public Health Emergency Preparedness Grant and managed through a collaboration between NC DPH and UNC-CH Department of Emergency Medicine’s Carolina Center for Health Informatics. The NC DETECT Data Oversight Committee does not take responsibility for the scientific validity or accuracy of methodology, results, statistical analyses, or conclusions presented.
NC Injury Data
Finagle’s Laws on Information

• The information you have is not what you want.
• The information you want is not what you need.
• The information you need is not what you can obtain.
### Leading Causes of Chronic Disease and Injury Death and Years of Life Lost: N.C., 2014

<table>
<thead>
<tr>
<th>Cause of Death</th>
<th>Total Deaths</th>
<th>Average Years of Life Lost *</th>
<th>Total Years of Life Lost *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer</td>
<td>19,301</td>
<td>3.1</td>
<td>60,376</td>
</tr>
<tr>
<td>Heart Disease</td>
<td>17,545</td>
<td>2.69</td>
<td>46,572</td>
</tr>
<tr>
<td>Injury/Violence</td>
<td>6,606</td>
<td>17.9</td>
<td>118,057</td>
</tr>
<tr>
<td>Chronic Lower Respiratory Diseases (Asthma, COPD)</td>
<td>5,020</td>
<td>1.4</td>
<td>7,052</td>
</tr>
<tr>
<td>Stroke</td>
<td>4,691</td>
<td>1.7</td>
<td>8,068</td>
</tr>
<tr>
<td>Alzheimer's disease</td>
<td>3,240</td>
<td>0.0</td>
<td>130</td>
</tr>
<tr>
<td>Diabetes Mellitus</td>
<td>2,685</td>
<td>3.4</td>
<td>9,238</td>
</tr>
<tr>
<td>Nephritis/Kidney Disease</td>
<td>1,790</td>
<td>2.1</td>
<td>3,790</td>
</tr>
<tr>
<td>Chronic Liver Disease</td>
<td>1,182</td>
<td>7.0</td>
<td>8,258</td>
</tr>
<tr>
<td>Hypertension</td>
<td>877</td>
<td>2.1</td>
<td>1,831</td>
</tr>
<tr>
<td><strong>Total Deaths (all causes)</strong></td>
<td>85,212</td>
<td>4.5</td>
<td>380,324</td>
</tr>
<tr>
<td><strong>Chronic Disease Deaths</strong></td>
<td>56,477</td>
<td>2.6</td>
<td>144,065</td>
</tr>
</tbody>
</table>

* Based on deaths that occurred prior to age 65

For 80% of the North Carolina’s population (ages 1 to 59), Injury is the leading cause of death.
The vast majority of injuries in North Carolina go unreported.

For every death, 29 hospitalized.
For every death, 738 ED visits.

Despite N.C.’s excellent reporting systems, the total burden of injury to the state is unknown.
N.C. Childhood Injury Deaths by Intent, Ages 0-18, 2010-2013 (n=1,058)

- 71% Unintentional
- 16% Intentional - Suicide
- 11% Intentional - Homicide/Assault
- 2% Undetermined/Unknown
N.C. Childhood Injury Hospital Discharge by Intent, Age 0-17, 2010-2013 (n=30,393)

- Intentional - Homicide/Assault: 12 cases
- Unintentional: 44 cases
- Undetermined/Other: 19 cases
- Missing: 18 cases
N.C. Childhood Injury Emergency Department Visits by Intent, 0-17, 2010-2013 (n= 780,649)
Drowning Deaths, Hospitalizations and ED Visits
North Carolina Residents (age 0-17), 1999-2014

Analysis by Injury Epidemiology and Surveillance Unit
Drownings (0-17)-2014

- 28 NC resident children died as a result of drowning in 2014.
- 19 counties had at least 1 death
- Mecklenburg (4) had highest
- 81 counties had no deaths in 2014
Drowning Hospitalizations by Age and Sex
North Carolina Residents (age 0-17), 2013 (N=38)

Source: N.C. State Center for Health Statistics, Hospitalization Discharge, 2013
Analysis by Injury Epidemiology and Surveillance Unit
Fire/Burn Deaths, Hospitalizations and ED Visits
North Carolina Residents (age 0-17), 1999-2014

Analysis by Injury Epidemiology and Surveillance Unit
Fire/Burn-2014

- 11 children died as a result of a fire or burn in 2014.
- 8 counties has at least 1 death
- Davidson (2), Hertford (2) & Sampson (2) had highest
- 92 counties had no deaths in 2014
Fire/Burn Deaths by Age and Sex
North Carolina Residents (age 0-17), 2013 (N=357)

Source: N.C. State Center for Health Statistics, Hospitalization Discharge, 2013; Analysis by Injury Epidemiology and Surveillance Unit
Firearm Deaths, Hospitalizations and ED Visits
North Carolina Residents (age 0-17), 1999-2014

Analysis by Injury Epidemiology and Surveillance Unit
Firearms-2014

- 47 children died as a result of firearm (all intents) in 2014.
- 33 counties had at least 1 death
- Mecklenburg (5) & Cumberland (4) had highest
- 67 counties had no firearm deaths in 2014
N.C. Violent Death Reporting System
OCME, Vital Records, Law Enforcement
1 of 32 states funded by CDC
Data collection since 2004
More 20,000 violent deaths entered
Average 2,000 deaths per year
Homicide, suicide and unintentional firearm
Firearm Hospitalization by Age and Sex
North Carolina Residents (age 0-17), 2013 (N=58)

Source: N.C. State Center for Health Statistics, Hospitalization Discharge, 2013; Analysis by Injury Epidemiology and Surveillance Unit
Motor Vehicle/Transportation-related Deaths, Hospitalizations and ED Visits North Carolina Residents (age 0-17), 1999-2014

Analysis by Injury Epidemiology and Surveillance Unit
Motor Vehicle/Transportation (MVT) Fatalities (0-17)-2014

- 87 children died as a result of MVT crashes in 2014. (NC residents 0-17)
- 39 counties had at least 1
- Wake (11), Robeson (8), Cumberland (7) had the highest
- 20 counties had 2 or more deaths
- 61 counties had no deaths in 2014
Motor Vehicle/Transportation Hospitalization by Age and Sex
North Carolina Residents (age 0-17), 2013 (N=473)

- Females
- Males

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Number of persons</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 4</td>
<td></td>
</tr>
<tr>
<td>5 to 9</td>
<td></td>
</tr>
<tr>
<td>10 to 14</td>
<td></td>
</tr>
<tr>
<td>15 to 18</td>
<td></td>
</tr>
</tbody>
</table>

Source: N.C. State Center for Health Statistics, Hospitalization Discharge, 2013; Analysis by Injury Epidemiology and Surveillance Unit
N.C. Estimated Hospital Charges of Unintentional Injuries, Age 0-17: 2010 – 2013

<table>
<thead>
<tr>
<th>Incident</th>
<th>Dollars in Millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>MVT</td>
<td>$115.2</td>
</tr>
<tr>
<td>Fire/ Burn</td>
<td>$38.4</td>
</tr>
<tr>
<td>Firearm</td>
<td>$13.4</td>
</tr>
<tr>
<td>Suffocation</td>
<td>$11.9</td>
</tr>
<tr>
<td>Drowning</td>
<td>$5.6</td>
</tr>
</tbody>
</table>
N.C. Mean Hospital Charges of Selected Injuries, Age 0-17: 2010 – 2013

- MVT: $55,562.0
- Fire/Burn: $29,578.0
- Firearm: $55,453.0
- Suffocation: $48,769.0
- Drowning: $35,353.0
Child Injury Death Rates, NC and United States, 1999-2013
CDC WISQARS data (0-17)

Dollars in Millions

<table>
<thead>
<tr>
<th>Year</th>
<th>US</th>
<th>NC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>19.9</td>
<td>17.2</td>
</tr>
<tr>
<td>2000</td>
<td>19.1</td>
<td>16.7</td>
</tr>
<tr>
<td>2001</td>
<td>17.6</td>
<td>16.1</td>
</tr>
<tr>
<td>2002</td>
<td>17.2</td>
<td>16.2</td>
</tr>
<tr>
<td>2003</td>
<td>17.2</td>
<td>15.5</td>
</tr>
<tr>
<td>2004</td>
<td>19.0</td>
<td>16.0</td>
</tr>
<tr>
<td>2005</td>
<td>18.0</td>
<td>15.5</td>
</tr>
<tr>
<td>2006</td>
<td>16.9</td>
<td>15.3</td>
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<td>2007</td>
<td>16.4</td>
<td>14.9</td>
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<td>2008</td>
<td>15.0</td>
<td>13.7</td>
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<td>2009</td>
<td>12.6</td>
<td>12.8</td>
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<tr>
<td>2010</td>
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<td>2011</td>
<td>11.4</td>
<td>12.0</td>
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<tr>
<td>2012</td>
<td>13.1</td>
<td>11.8</td>
</tr>
<tr>
<td>2013</td>
<td>11.4</td>
<td>11.4</td>
</tr>
</tbody>
</table>
From Data to Action

Living lives to their full potential
Preguntas?

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