Unintentional injuries and violence are the leading causes of death, hospitalization, and disability for children ages 1-18. This fact sheet provides a state snapshot of data on the injury-related Maternal and Child Health Block Grant National Performance Measures and Health Status Indicators, with a special focus on disparities based on race, gender, and rural/urban residence. The fact sheet is intended to be a helpful and easy-to-use tool for needs assessments, planning, program development, and presentations.

The Children’s Safety Network (CSN) National Injury and Violence Prevention Resource Center, funded by the Maternal and Child Health (MCH) Bureau, works with states to utilize a science-based, public health approach for injury and violence prevention (IVP). CSN is available to provide information and technical assistance on injury surveillance and data; needs assessments; best practices; and the design, implementation, and evaluation of programs to prevent child and adolescent injuries.

### Major Causes of Injury Death
Understanding injury rankings among other causes of death is important in determining their physical and economic role in each state. Knowing what types of injuries cause the majority of deaths and hospitalizations can inform program planning and development efforts. Table 1 shows the top 5 causes of death by age group in the state. Unintentional and intentional injury deaths are highlighted. Table 2 shows the top 5 causes of injury death by age group in the state. Intentional injury deaths are highlighted.

<table>
<thead>
<tr>
<th>Rank</th>
<th>&lt;1</th>
<th>1 - 4</th>
<th>5 - 9</th>
<th>10 - 14</th>
<th>15-19</th>
<th>20-24</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Short Gestation 1,067</td>
<td>Unintentional Injury 207</td>
<td>Unintentional Injury 144</td>
<td>Unintentional Injury 207</td>
<td>Unintentional Injury 863</td>
<td>Unintentional Injury 1,109</td>
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<td>2</td>
<td>Congenital Anomalies 932</td>
<td>Congenital Anomalies 98</td>
<td>Malignant Neoplasms 85</td>
<td>Malignant Neoplasms 80</td>
<td>Homicide 385</td>
<td>Homicide 548</td>
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<tr>
<td>3</td>
<td>Unintentional Injury 350</td>
<td>Malignant Neoplasms 70</td>
<td>Congenital Anomalies 45</td>
<td>Homicide 43</td>
<td>Suicide 289</td>
<td>Suicide 370</td>
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<tr>
<td>4</td>
<td>Maternal Pregnancy Comp. 338</td>
<td>Homicide 66</td>
<td>Homicide 25</td>
<td>Suicide 37</td>
<td>Malignant Neoplasms 117</td>
<td>Malignant Neoplasms 162</td>
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<tr>
<td>5</td>
<td>SIDS 242</td>
<td>Influenza &amp; Pneumonia 29</td>
<td>Heart Disease 20</td>
<td>Congenital Anomalies 35</td>
<td>Heart Disease 62</td>
<td>Heart Disease 109</td>
</tr>
</tbody>
</table>

Table 1 Source: WISQARS Leading Causes of Death Reports, 2004-2008.
Table 2. Leading Causes and Total 5-Year Incidence of Injury Deaths by Age Group, Michigan, 2004-2008

<table>
<thead>
<tr>
<th>Rank</th>
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<th>20 - 24</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Suffocation 310</td>
<td>Homicide 66</td>
<td>MV Traffic 70</td>
<td>MV Traffic 117</td>
<td>MV Traffic 635</td>
<td>MV Traffic 645</td>
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<tr>
<td>2</td>
<td>Homicide 49</td>
<td>Drowning 59</td>
<td>Homicide 25</td>
<td>Homicide 43</td>
<td>Homicide 385</td>
<td>Homicide 548</td>
</tr>
<tr>
<td>3</td>
<td>MV Traffic 14</td>
<td>MV Traffic 47</td>
<td>Drowning 19</td>
<td>Suicide 37</td>
<td>Suicide 289</td>
<td>Suicide 370</td>
</tr>
<tr>
<td>4</td>
<td>Undetermined Suffocation 10</td>
<td>Fire/Burn 37</td>
<td>Fire/Burn 18</td>
<td>Fire/Burn 17</td>
<td>Poisoning 96</td>
<td>Poisoning 301</td>
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<tr>
<td>5</td>
<td>Drowning ****</td>
<td>Suffocation 23</td>
<td>Other Land Transport ****</td>
<td>Drowning 16</td>
<td>Drowning 29</td>
<td>Undetermined Poisoning 77</td>
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</tbody>
</table>

Note. All mechanisms of suicide and homicide were combined according to intent. Each listed mechanism is unintentional except those otherwise noted. **** = indicates that the cell values range from 1-10 and are suppressed for data confidentiality purposes.

Table 2 Source: National Center for Health Statistics, Multiple Cause of Death Data, 2004-2008.

Childhood injury is also a leading cause of morbidity. Table 3 provides information from the state's hospital discharge data on the leading causes and incidence of hospital admissions by age group.

Table 3: Leading Causes and Annual Incidence of Hospital-Admitted Injuries by Age Group, Michigan Residents, 2009

<table>
<thead>
<tr>
<th>Rank</th>
<th>&lt;1</th>
<th>1 - 4</th>
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<th>15 - 19</th>
<th>20 - 24</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Unspecified 97</td>
<td>Unintentional Fall 198</td>
<td>Unintentional Fall 210</td>
<td>Unintentional Fall 227</td>
<td>Self-Inflicted 730</td>
<td>Self-Inflicted 844</td>
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<tr>
<td>2</td>
<td>Unintentional Fall 85</td>
<td>Unspecified 176</td>
<td>Unspecified 181</td>
<td>Unspecified 204</td>
<td>Unintentional MVT 628</td>
<td>Unintentional MVT 693</td>
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<tr>
<td>3</td>
<td>Assault 55</td>
<td>Unintentional Poisoning 168</td>
<td>Unintentional MVT 73</td>
<td>Unintentional MVT 115</td>
<td>Unspecified 455</td>
<td>Assault 491</td>
</tr>
<tr>
<td>4</td>
<td>Unintentional Other Specified, NEC 48</td>
<td>Unintentional Fire/Burn 112</td>
<td>Unintentional Struck By/Against 63</td>
<td>Unintentional Struck By/Against 108</td>
<td>Assault 397</td>
<td>Unspecified 462</td>
</tr>
<tr>
<td>5</td>
<td>Unintentional Fire/Burn 30</td>
<td>Unintentional Bites &amp; Stings 77</td>
<td>Unintentional Pedal Cyclist, Other 49</td>
<td>Unintentional Transport, Other 81</td>
<td>Unintentional Fall 279</td>
<td>Unintentional Fall 391</td>
</tr>
</tbody>
</table>

Note: MVT = Motor Vehicle Traffic. NEC = Not Elsewhere Classifiable. Source: Children’s Safety Network Economics and Data Analysis Resource Center (CSN EDARC), at Pacific Institute for Research and Evaluation (PIRE), Calverton, MD, January 2012. Incidence based on 2009 data from the state and obtained from the Michigan State Inpatient Databases (SID), Healthcare Cost and Utilization Project (HCUP), Agency for Healthcare Research and Quality (AHRQ). These injuries exclude patients who were dead at the time of discharge, readmission cases, transfers (e.g., from another short or long-term care facility, different acute care hospital), medical misadventures, and/or who suffered non-acute injuries. All counts were based on the patients’ state of residence.
**National Performance Measures**

The Federal Maternal and Child Health Bureau Block Grant program requires State MCH programs to report on 18 National Performance Measures (NPM), two of which directly address injuries. NPM #10 addresses the rate of deaths to children aged 14 years and younger caused by motor vehicle crashes per 100,000 children. NPM #16 addresses the rate of suicide deaths among youths aged 15-19.

The following figures provide information related to NPMs #10 and #16.

**NPM 10: Reducing Unintentional Motor Vehicle Deaths to Children Ages 0-14:**

![Graph showing the rate of deaths to children aged 14 years and younger caused by motor vehicle crashes per 100,000 children, Michigan and US, 2004-2008.](image)

Figure 1 Source: WISQARS Fatal Injury Reports, 2004-2008 and WISQARS Injury Mortality Reports, 2003-2007
33% of children ages 0-14 involved in a motor vehicle fatality were occupants.

Note: Unspecified/Other primarily includes cases where a child fatality was coded as an unspecified motor-vehicle accident or a collision between specified motor vehicles, among others. In addition, motorcyclist fatalities were collapsed into this category because incidence were fewer than 10 and data were from years 2004-2008.
In the state of Michigan from 2004 to 2008, the rate of motor vehicle crash involved fatalities for males age 15-19 was 103 percent higher than for females age 15-19.

Data are only reported for urban areas that exist within the state. In addition, data for some age groups and areas are not reported due to few or no deaths.

Figure 4 Source: WISQARS Fatal Injury Reports, 2004-2008 and WISQARS Injury Mortality Reports, 2003-2007

Figure 5 Source: CDC WONDER Multiple Cause of Death data, 2003-2007 and Urban-Rural Definition Classification System

NPM 16: Reducing Suicide Deaths Among Teens Ages 15-19:

Figure 6 Source: WISQARS Fatal Injury Reports, 2004-2008 and WISQARS Injury Mortality Reports, 2003-2007
43% of youth ages 15-19 completed suicide by using suffocation and 43% used a firearm.

Figure 7: Percentage Distribution of Completed Suicides by Means among Youths Aged 15 to 19, Michigan, 2004-2008

Note: Unspecified/Other includes all self-inflicted fatal injuries in which the mechanism was not identified or the coded mechanism was other than those named in the pie chart.

Figure 7 Source: WISQARS Fatal Injury Reports, 2004-2008 and WISQARS Injury Mortality Reports, 2003-2007

Figure 8: Percentage of High School Aged Children with Suicide Ideation, Michigan and US, 2003-2009

Figure 9: The Percentage of High School-Aged Children Treated for Suicide Attempt, Michigan and US, 2003-2009

Figures 8 & 9 Source: Youth Online: High School Youth Risk Behavior Survey (YRBS), 2003-2009
Figure 10: The Rate (per 100,000) of Completed Suicides By Race among Youths Aged 15-24, Michigan, 2003-2007

Note: Rates based on two or fewer deaths were excluded.

Figure 10 Source: WISQARS Injury Mortality Reports, 2003-2007

Figure 11: The Rate (per 100,000) of Completed Suicides by Gender among Youths Aged 15-24, Michigan, 2004-2008

In the state of Michigan from 2004 to 2008, the rate of suicide deaths for males age 15-19 is 3.4 times higher than for females age 15-19.

Figure 11 Source: WISQARS Fatal Injury Reports, 2004-2008 and WISQARS Injury Mortality Reports, 2003-2007

Figure 12: The Rate (per 100,000) of Completed Suicides by Urbanicity Among Youths Aged 15-24, Michigan, 2003-2007

Data are only reported for urban areas that exist within the state. In addition, data for some age groups and areas are not reported due to few or no deaths.

Figure 12 Source: CDC WONDER Multiple Cause of Death data, 2003-2007 and Urban-Rural Definition Classification System
IVP Health Status Indicators

The Maternal and Child Health Bureau requires every state to report on 12 Health Status Indicators. Six of the indicators are related to IVP. The two figures below reflect the data reported for the IVP Health Status Indicators by the state in their Maternal and Child Health Block Grant Application Form 17, 2011.

Figures 13 & 14 Source: HRSA, Title V Information System Multi-Year Report
State Specific Performance Measures and Priority Needs

Each state develops up to 7 – 10 State Performance Measures and priority needs. The following provides information about the states’ selected 2012 injury-related performance measures and priority needs.

State Performance Measures:
Michigan has the following injury-related State Performance Measures:
• To reduce the ratio between black and white children under 6 years of age with elevated blood lead levels.
• To reduce the percent of women physically abused during the 12 months prior to pregnancy.
• To reduce the percent of high school students who experienced dating violence.

Priority Needs:
Michigan has the following injury-related priority needs:
• Reduce intimate partner and sexual violence.
• Address environmental issues (asthma, lead, second-hand smoke) affecting children, youth, and pregnant women.

This fact sheet presents a cursory review of the injury morbidity and mortality data available for the state. The figures and tables in this fact sheet can help you understand the state’s progress in addressing motor vehicle traffic injuries and suicide. To target and address these and other injury issues, it is critical to understand this data. CSN can assist you in conducting detailed data analyses, utilizing surveillance systems, and undertaking needs assessments. For assistance, contact the Children’s Safety Network at csninfo@edc.org.

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EMSC Contact: Linda Nesbitt, nesbittl@michigan.gov and Robin Shivley, mshivl@michigan.gov
CDR Coordinator: Heidi Hilliard, hhilliar@mphi.org

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Register for the CSN newsletter: http://go.edc.org/csn-newsletter
Need TA? Have Questions? E-mail: csninfo@edc.org

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