Injury is a Leading Cause of Death in Children in Maryland

In 2012, 46 Maryland children ages 5 years or younger died from injuries. Of these deaths, 12 (26.1%) were among children younger than 1 year old, and 34 (73.9%) were among children ages 1 to 5 years.

27 (58.7%) of the children who died were black, of whom 8 (17.4%) were < 1 year old and 19 (41.3%) were between 1 – 5 years old. 15 (32.6%) children were white and 4 (8.7%) were of other race. There were 38,031 emergency department visits among children ages 5 years and younger. 34,415 (90.5%) of these visits were for children who were 1 to 5 years of age, and 3,616 (9.5%) were younger than the age of 1 year.

For every child that died, 14 children were hospitalized and 827 were treated and released from an emergency department. Not included were children who received treatment in physician offices or at home.

Childhood Injury by Sex

- Males had a higher proportion of non-fatal injuries, compared to females for both emergency department visits (57% and 44%) and hospitalizations (60% and 40% respectively).
- There was a higher percentage of deaths among males (56%) compared to females (43%).

This document was produced in conjunction with CDC's Core Violence and Injury Prevention Program under Cooperative Agreement 11-1101.
Injury Deaths in Infants

- The leading cause of unintentional deaths among Maryland infants less than 1 year of age was unintentional suffocation (45%).
- Homicides accounted for just over half (55%) of infant deaths.

Figure 3: Injury Deaths among Maryland Infants Aged Less than 1 Year, 2012

Injury Deaths in Young Children

- Drowning (28%) was the leading cause of death among young children between ages 1-5 years.
- Homicides accounted for 28% of deaths among young children.

*Results for counts less than 5 are not reported.
Unintentional falls (35%) followed by foreign body (17%) and poisoning (14%) were the leading causes of injury for children 0-5 years of age.

Among the unintentional falls category, falling from furniture was highest (23%) followed by falling from playground equipment (18%).

For both age groups (<1 and 1-5 years) unintentional falls was the leading cause of injury. For children aged 1-5 years, foreign body and poisoning were both the second leading causes of injury at 14% respectively. For infants (<1 year) foreign body was the second leading cause of death.

42% (n=268) of the children who were hospitalized were black and 40% (n=256) were white. Among white children 78.5% of the hospitalized children were between 1-5 years of age and similarly for black children 75.4% were between 1-5 years.
Unintentional falls (44%) were the leading cause of injury related emergency department visits for children 0-5 years of age.

Among the unintentional falls category, falls from furniture such as a chair or bed were most common (20.4%) followed by slipping, tripping or stumbling (18.7%).

18,652 (49%) of children who visited emergency room were white and 13,862 (36.4%) of children were black.

Of the white children who visited emergency departments, 90.6% were between the ages of 1 to 5 years. Of the black children 90.3% were between the ages of 1 to 5 years.

Note: ‘The methodology used to identify Maryland residents in the hospital discharge and ED visits data files changed in 2014. Therefore, data reports released in 2014 and beyond may not be comparable to data reports released in earlier years.’
### Table 1: Injury-Related Hospital Discharges and Emergency Department (ED) Visits among Children Ages 0–5 Years, by Age Group, Maryland, 2012

<table>
<thead>
<tr>
<th></th>
<th>Infants less than 1 Year</th>
<th>Children Ages 1-5 Years</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Hospital Discharges</td>
<td>ED Visits</td>
</tr>
<tr>
<td><strong>Unintentional Injuries</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cut/pierce</td>
<td>1</td>
<td>94</td>
</tr>
<tr>
<td>Drowning/submersion</td>
<td>2</td>
<td>4</td>
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<tr>
<td>Falls (off/from):</td>
<td>39</td>
<td>1,985</td>
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<tr>
<td>Furniture</td>
<td>16</td>
<td>866</td>
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<tr>
<td>Steps/stairs</td>
<td>7</td>
<td>184</td>
</tr>
<tr>
<td>With strike against object</td>
<td>2</td>
<td>204</td>
</tr>
<tr>
<td>Slipping/tripping/stumbling</td>
<td>2</td>
<td>146</td>
</tr>
<tr>
<td>Playground equipment</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Building</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Other fall from one level to another</td>
<td>5</td>
<td>291</td>
</tr>
<tr>
<td>Other/unspecified</td>
<td>7</td>
<td>286</td>
</tr>
<tr>
<td>Fire/Burn</td>
<td>14</td>
<td>134</td>
</tr>
<tr>
<td>Foreign Body</td>
<td>17</td>
<td>179</td>
</tr>
<tr>
<td>Natural and Environmental</td>
<td>12</td>
<td>190</td>
</tr>
<tr>
<td>Excessive heat</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Dog bites</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Other bites/stings/animal injury</td>
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<td>157</td>
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<tr>
<td>All other natural/environmental</td>
<td>10</td>
<td>22</td>
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<tr>
<td>Poisoning</td>
<td>5</td>
<td>115</td>
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<tr>
<td>Struck-by/against object</td>
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<td>414</td>
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<tr>
<td>Suffocation</td>
<td>2</td>
<td>15</td>
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<tr>
<td>Transport-related</td>
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<td>66</td>
</tr>
<tr>
<td>Motor vehicle (MV)-occupant</td>
<td>1</td>
<td>55</td>
</tr>
<tr>
<td>Bicycle/tricycle (MV &amp; non-MV)</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Pedestrian (MV &amp; non-MV)</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Other transport</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>All other unintentional causes</td>
<td>12</td>
<td>386</td>
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<tr>
<td><strong>Assault/Abuse</strong></td>
<td>14</td>
<td>22</td>
</tr>
<tr>
<td><strong>Undetermined/Other Intent</strong></td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td><strong>Total Injury-Related Cases</strong></td>
<td>133</td>
<td>3,616</td>
</tr>
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</table>
Maryland Child Injury Prevention Activities:

Maryland Kids In Safety Seats (KISS) Program:

- **Prevention**
  - Promotes the proper and consistent use of car seats or booster seats by providing technical assistance through presentations/trainings, car seat check-up events, Skype video chat service and car seat inspection site referrals.
  - Answers questions about Maryland’s child passenger safety laws and safe transportation recommendations by serving as MD's child passenger safety clearinghouse via educational mailings, 800 Helpline, dedicated e-mail and website.
  - Coordinates statewide Car Seat Assistance Programs that provide car and booster seats, at a minimal cost, to families unable to afford to purchase them. Program volunteers provide appropriate child safety seats and ensure the family knows the correct way to use the seats. In addition, short-term special needs car seats are available for children with certain medical conditions.

- **Surveillance**
  KISS summarizes car seat inspection forms to determine the State's general misuse rate. Maryland's annual misuse rate averages about 75% and may include: wrong car seat for the child, incorrect installation, incorrect harness or the seat is recalled, broken, expired or has been in a crash.

- **Partnerships**
  Statewide partners include childcare providers/schools, social service and family support organizations, medical and health professionals, law enforcement and fire/rescue professionals, safety advocates and injury prevention coalition members and anyone who transports young children.

- **Accomplishments/Successes**
  Legislative bill (S887) was passed and went into effect 10/1/13. The new law increases the citation fine to $50 and removed a citation exemption from the law. Previously, law enforcement was unable to ticket for “floaters”, that is, an extra child or children in the vehicle that were unable to buckle up in an appropriate car or booster seat or in a seat belt because seat belts were already in use by child passengers. With the removal of the exemption, every child must be buckled up, and if there is an extra unrestrained child or children, law enforcement may issue a citation to the driver.
Maryland Home Visiting Program
Maryland Maternal, Infant and Early Childhood Home Visiting Program (MIECHV)

- Description
  - The Patient Protection and Affordable Care Act established a Maternal, Infant, and Early Childhood Home Visiting (MIECHV) Program that provides funding to states to establish home visiting programs for at-risk pregnant women and children from birth to age 5.
  - This program will use evidence-based home visiting strategies that help families create a safe and healthy environment for young children and help connect them to a range of services including, but not limited to health, early education, and early intervention.
  - The project goals include improving maternal, infant and childhood health; improving outcomes for families in at-risk communities; strengthening and improving programs for families receiving home visiting services; strengthening parent-child relationships and ensuring an early childhood system of care that is coordinated and meets Maryland’s family and child needs.
  - As part of the federal home visiting grant, Maryland is required to collect and submit data on legislatively-mandated benchmarks which encompass the program’s goals. By the end of three funding years, programs are expected to show improvement in at least half of the constructs under each benchmark area.

Selected Communities
- A needs assessment was carried out by the home visiting team to prioritize funding. The Maryland Home Visiting Needs Assessment looked at 15 indicators that put children and families at-risk: prematurity, low-birth-weight, late or no prenatal care, teen birth and infant mortality rates; poverty; crime; domestic violence; high-school drop-outs; low school readiness rates; substance abuse treatment; unemployment; WIC and Medicaid participation; and/or child maltreatment. The state was divided into 368 potential “communities” (including 55 neighborhoods in Baltimore City and census tracts in the rest of the state). Maryland then used a ZIP code/Community Statistical Area (CSA) analysis to identify risk (having at least one elevated indicator) in the 368 communities.
- Background information on Maryland’s Home Visiting Needs Assessment can also be found on the Maryland Home Visiting website at: http://phpa.dhmh.maryland.gov/mch/SitePages/hv-needs-assess.aspx.
- Priority consideration for funding was given to the six areas ranked as “Tier one communities” on the needs assessment. These included Baltimore City (1), Dorchester County (2), Washington County (3), Wicomico County (4), Prince George’s County (5) and Somerset County (6).
**Programs and Partnerships**

Home Visiting Models
The evidence-based programs currently receiving MIECHV funding in the aforementioned at-risk counties/communities are listed below:

*Healthy Families America (HFA)* (Baltimore City, Dorchester County, Washington County, Wicomico County, Prince George’s County and Somerset County)

Population served: HFA is designed for parents facing challenges such as single parenthood, low income, childhood history of abuse, substance abuse, mental health issues, and/or domestic violence. Individual programs select the specific characteristics of the target population they plan to serve. Families must be enrolled prenatally or within the first three months after a child’s birth. Once enrolled, services are provided to families until the child enters kindergarten.

Program focus: HFA aims to (1) reduce child maltreatment; (2) increase use of prenatal care; (3) improve parent-child interactions and school readiness; (4) ensure healthy child development; (5) promote positive parenting; (6) promote family self-sufficiency and decrease dependency on welfare and other social services; (7) increase access to primary care medical services; and (8) increase immunization rates.

*Nurse-Family Partnership (NFP)* (Baltimore City)

Population served: The Nurse-Family Partnership (NFP) is designed for first-time, low-income mothers and their children. It includes one-on-one home visits by a trained public health nurse to participating clients. The visits begin early in the woman’s pregnancy (with program enrollment no later than the 28th week of gestation) and conclude when the woman’s child turns two years old. During visits, nurses work to reinforce maternal behaviors that are consistent with program goals and that encourage positive behaviors and accomplishments. Topics of the visits include: prenatal care; caring for an infant; and encouraging the emotional, physical, and cognitive development of young children.

Program focus: The Nurse-Family Partnership program aims to improve maternal health and child health; improve pregnancy outcomes; improve child development; and improve economic self-sufficiency of the family.

*Early Head Start – Home-Based Option* (Washington County)

Population served: Early Head Start (EHS) targets low-income pregnant women and families with children birth to age three years, most of whom are at or below the Federal poverty level or who are eligible for Part C services under the Individuals with Disabilities Education Act in their State.

Program focus: The program focuses on providing high quality, flexible, and culturally competent child development and parent support services with an emphasis on the role of the parent as the child’s first, and most important, relationship. EHS programs include home- or center-based services, a combination of home- and center-based programs, and family child care services (services provided in family child care homes).
**Surveillance (Maryland MIECHV Benchmarks)**

**BENCHMARK 1:**
IMPROVED MATERNAL AND NEWBORN HEALTH include indicators from: Prenatal Care, Parental Use of Alcohol, Tobacco, or Illicit Drugs, Preconception Care, Inter-birth intervals, Screening for depressive maternal symptoms, Breastfeeding, Well-child visits, and Maternal and Child Health Insurance Status.

**BENCHMARK 2:**
CHILD INJURIES, CHILD ABUSE, NEGLECT, OR MALTREATMENT AND REDUCTION OF EMERGENCY DEPARTMENT VISITS include: Visits for children to the emergency department from all causes, Visits for mothers to the emergency department from all causes, Information provided or training on prevention of child injuries, Incidence of child injuries requiring medical care, Reported suspected (unsubstantiated) maltreatment for children in the program, Reported substantiated (indicated) maltreatment for children in the program, First-time victims of maltreatment.

**BENCHMARK 3:**
IMPROVEMENT IN SCHOOL READINESS AND ACHIEVEMENT includes: Parent support for children’s learning and development (e.g., having appropriate toys available, talking and reading with their child, Parent knowledge of child development and of their child’s developmental progress, Parenting behaviors and parent-child relationship (e.g., discipline strategies, play interactions), Parent emotional well-being or parenting stress, Child’s communication, language and emergent literacy, Child’s general cognitive skills, Child’s positive approaches to learning including attention, Child’s social behavior, emotion regulation, and emotional well-being, Child’s physical health and development.

**BENCHMARK 4:**
DOMESTIC VIOLENCE includes: Screening for domestic violence, Of families identified for the presence of domestic violence, number of referrals made to relevant domestic violence services (e.g., shelters, food pantries), of families identified for the presence of domestic violence, number of families for which a safety plan was completed.

**BENCHMARK 5:**
FAMILY ECONOMIC SUFFICIENCY includes: Household income and benefits, Education of adult members of the household, and Health Insurance status.

**BENCHMARK 6:**
COORDINATION/REFERRALS FOR OTHER COMMUNITY RESOURCES AND SUPPORT include: Number of families identified for necessary services, Number of families that were identified for necessary services and received referrals to available community resources, Number of Memoranda of Understanding (MOU) or other formal agreements with other social service agencies in the community, Number of agencies with which the home visiting provider has a clear point of contact, and Number of completed referrals.
Maryland State Child Fatality Review (CFR) Team

The Maryland Child Fatality Review (CFR) Team was established by the Maryland General Assembly in 1999. It’s comprised of at least 25 members from varied disciplines throughout the state, along with members of the general public, to provide a comprehensive and diverse Team that addresses child fatalities and unexpected death. The CFR’s purpose is to prevent child deaths by developing an understanding of the causes and incidence of child deaths. The CFR also uses data collected from Vital Statistics, Injury Prevention, Highway Safety and local reviews to guide the development of plans and implementation of changes within the agencies represented on the State CFR team to prevent child deaths, and to advise the Governor, General Assembly, and the public on changes to law, policy, and practice to prevent child death. The CFR Team meets regularly and submits an annual report to the Governor. For more information, please visit: http://phpa.dhmh.maryland.gov/mch/SitePages/cfr-home.aspx.

Maryland Fetal and Infant Mortality Review (FIMR) Program

The National Fetal and Infant Mortality Review (N FIMR) Program was established in the 1990s as a collaborative effort between the American College of Obstetricians and Gynecologists and the Maternal and Child Health Bureau, Health Resources and Services Administration. The Fetal and Infant Mortality Review Program began in Maryland in 1997. Its purpose is to prevent infant mortality and morbidity through the review of fetal and infant deaths in Maryland, assess how infant morbidity and mortality occurs in specific local communities, and create an action-oriented process for change. FIMR is used as a “warning system” and a method for improving birth outcomes and systems of care surrounding pregnancy, childbirth and infancy. The program’s process begins when a fetal or infant death occurs within the community, which triggers data review from Vital Statistics and medical records, identification of issues and recommendation for community change, prioritization of identified issues, and implementation of appropriate interventions to improve services and resources. There are 18 local FIMR programs in the state which represent all 24 Maryland jurisdictions. For more information, please visit: http://phpa.dhmh.maryland.gov/mch/SitePages/fimr_home.aspx.

Safe Kids Maryland

Safe Kids Maryland is led by Maryland Institute for Emergency Medical Services Systems (MIEMSS), which provides dedicated and caring staff, operation support and other resources to assist in achieving our common goal: keeping your kids safe. Based on the needs of the community, this coalition implements evidence-based programs, such as car-seat checkups, safety workshops and sports clinics, that help parents and caregivers prevent childhood injuries. For more information, please visit: http://www.safekids.org/coalition/safe-kids-maryland

Notes: Data sources
All injuries are considered unintentional unless specified otherwise. Reference to any commercial entity or product or service on this page should not be construed as an endorsement by the Government of the company or its products or services.