



# INDIANA

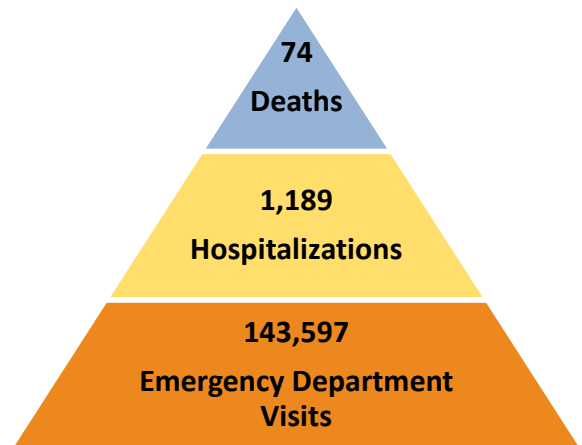
## Special Emphasis Report: Injuries Among School-Age Children 6-11, 2011- 2013

### Injury is a Leading Cause of Death in Children

Injuries are a major public health problem across the United States and in Indiana. Injuries are not random chance events, but follow a predictable sequence of events, and can be prevented using specific strategies. Injuries are the number one killer of children over age 1 and contribute to significant morbidity. From 2011- 2013, 74 Indiana children ages 6-11 years died due to injury, at a rate of 4.62 per 100,000.

In addition to these injury deaths, there were 1,189 injury-related hospitalizations and 143,597 emergency department (ED) visits. These numbers do not include children who received treatment in physician offices or at home.

Figure 1: Annual Injuries\* among Children Ages 6-11 Years, Indiana, 2011-2013



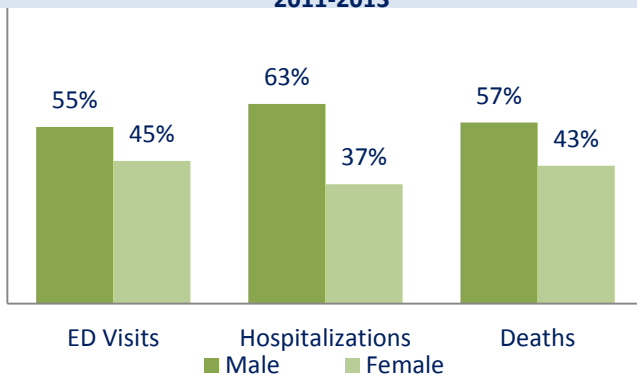
*For every child that died, 16 children were hospitalized and nearly 1,940 were treated in emergency departments.*

*Every day there were more than 131 injury-related ED visits among children 6-11 year old.*

### 2011-2013 Indiana Injury Facts

- 74 children ages 6-11 died due to injury
  - Leading causes were transport-related injuries, homicide and drowning
- 1,189 child injury-related hospitalizations
- 143,597 child-injury ED visits
  - Falls and transport-related circumstances were the leading causes of hospitalizations and ED visits
- More male children were injured, treated in emergency departments, hospitalized and died than female children

Figure 2: Percent of Injury Deaths, Hospitalizations and Emergency Department Visits among Children Ages 6-11 Years, by Sex, Indiana, 2011-2013



\*Hospitalizations and emergency department visit data are based on ICD-9 primary diagnostic code of injuries and poisoning.

### Child Injury by Gender

Males accounted for a greater number of injuries and had higher rates of injury-related medical treatment in Indiana among children ages 6-11 years compared to females. More male children ages 6-11 years were treated in emergency departments, hospitalized, and died due to injury compared to females of the same age.





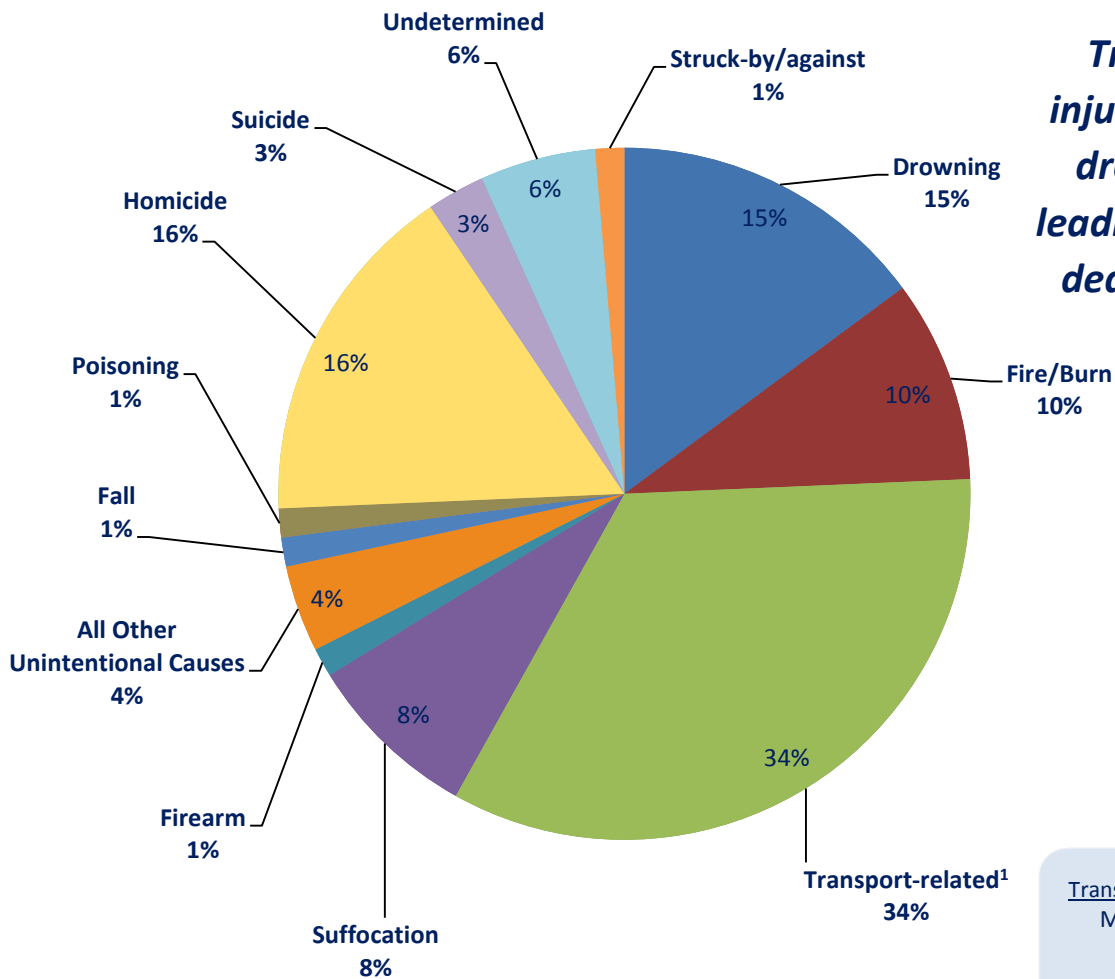
# INDIANA

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### Injury Deaths in Children 6-11 Years

Figure 3: Injury Deaths in Children Ages 6 – 11 Years, Indiana, 2011- 2013 (N=74)

- From 2011-2013, there were 74 injury deaths of Indiana children ages 6-11 years, with 43 deaths among children ages 6-8 years among 31 children ages 9-11 years.
- The highest injury death rate was in 2011 with 5.4 per 100,000 and highest count of 29.
- Most injury deaths were unintentional in nature (75.7%, n=56). There were 12 homicide deaths.
- The leading cause of injury death was transport-related (n=25), followed by homicide and drownings.
- The American Academy of Pediatrics recommends using a booster seat age 5 up to when the seat belt fits properly, which is when the child is at least 57 inches tall. Kids 12 years and under should ride in the back seat using a seat belt.



**Transport-related injuries, homicide and drowning were the leading causes of injury death for school-age children.**

Transport-related Circumstances:  
 Motor Vehicle Occupant: 36%  
 Bicycle/Tricycle: 24%  
 Other Transport: 40%

Injury Deaths are based on ICD-10 underlying cause codes.

1. Transport-related includes motor vehicle occupant, bicycle/tricycle (MV & non-MV), pedestrian (MV & non-MV), and other transport.



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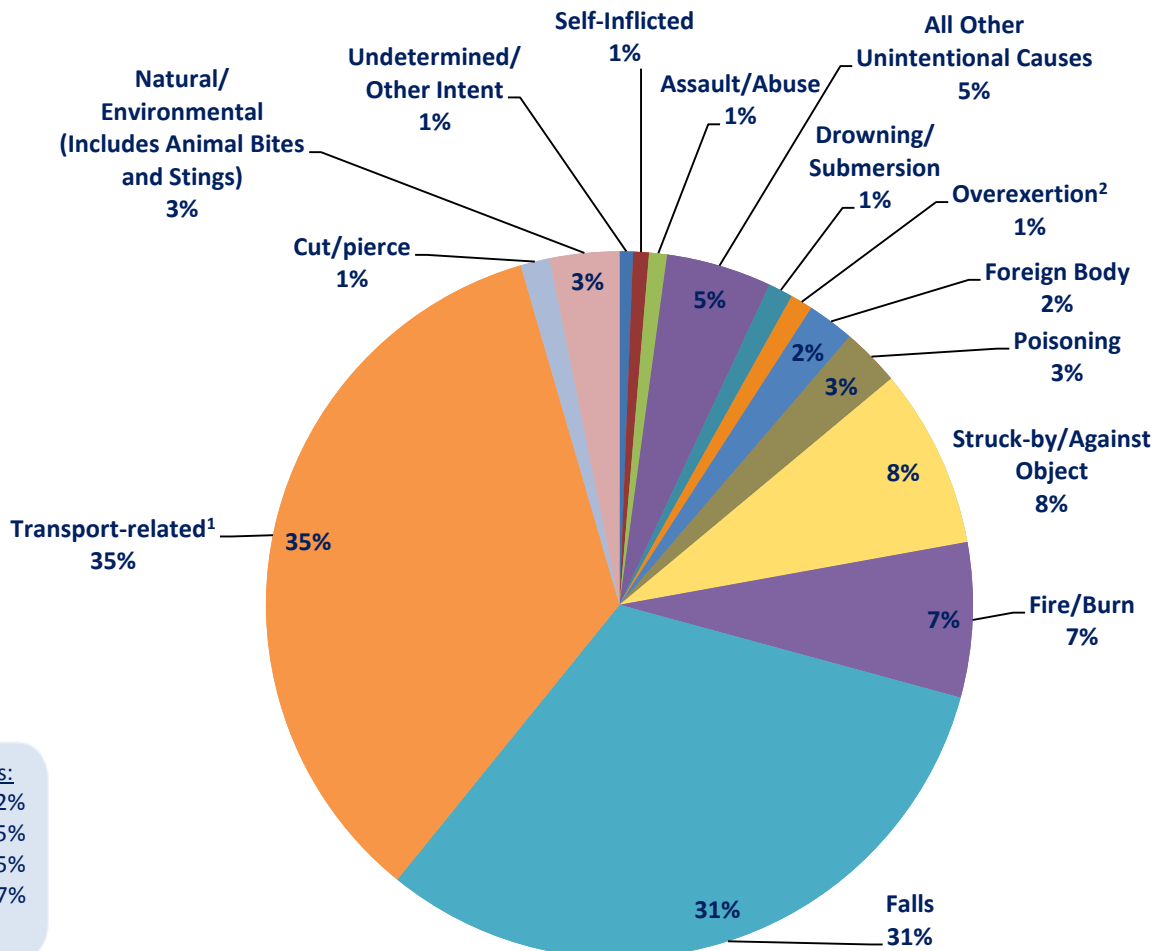
## Special Emphasis Report: Injuries Among School-Age Children 6-11, 2011- 2013

### Injury-Related Hospitalizations

Figure 5: Injury-Related Hospitalizations\*\* among Children Ages 6-11 Years, Indiana, 2011-2013 (N= 975)

- During 2011-2013, there were 975 injury-related hospitalizations of Indiana children ages 6-11 years. The peak year for injury-related hospitalizations was 2012 with 367 for children ages 6-11. There were 339 hospitalizations in 2011 and 269 in 2013.
- Most injury-related hospitalizations were unintentional in nature (97.8%, n=954). Intentional injuries contributed to a total of 15 hospitalizations.
- Transport-related injuries were the leading cause of injury-related hospitalizations (34.7%, N=338). The next leading cause of hospitalizations was falls (31.6%, n=308), struck by/against object (8.2%, n =80) and fire/burn (7.1%, n =69).
- Of the 338 hospitalizations of children ages 6-11 years for traffic-related injuries, 32% involved motor vehicle occupants (n=109) and one quarter involved bicycles or tricycles (n = 86).
- Falls on the playground are a common cause of injury for school aged kids. Surfaces under playground equipment should be safe, soft, such as wood chips or sand, but not dirt or grass. Ensure the equipment is also well-maintained.

**Falls, burns, and transport-related injuries led to 715 hospitalizations among children.**



Transport-related Circumstances:  
 Motor Vehicle Occupant: 32%  
 Bicycle/Tricycle: 25%  
 Pedestrian: 15%  
 Other Transport: 27%

\*\*Injury-related Hospitalization cases selected based on ICD-9 primary diagnosis codes with external cause of injury codes.

1. Transport-related includes motor vehicle occupant, bicycle/tricycle (MV & non-MV), pedestrian (MV & non-MV), and other transport.

2. Overexertion: Injury from working the body or parts of the body too hard, resulting in damage to muscle, tendon, ligament, cartilage, joint, or peripheral nerve. This category represents the common causes of strains, sprains, and twisted ankles resulting from overexertion due to lifting, pushing, or pulling. ICD-9 external cause of injury codes: E927.0-.4,.8-.9.



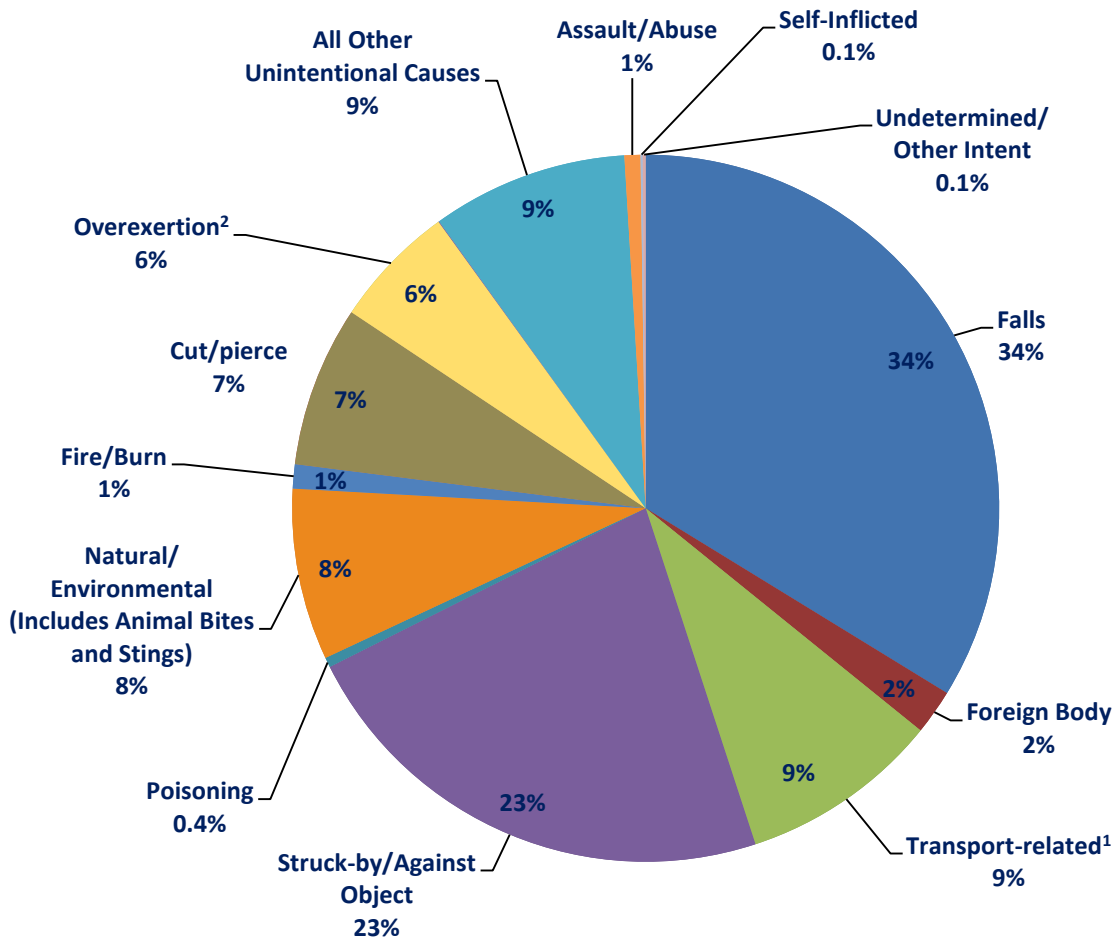
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## Special Emphasis Report: Injuries Among School-Age Children 6-11, 2011- 2013

### Injury-Related Emergency Department Visits

**Figure 5: Injury-Related Emergency Department Visits\*\* among Children Ages 6-11 Years, Indiana, 2011-2013 (N=108,559)**

- From 2011-2013, there were 108,559 injury-related emergency department (ED) visits of Indiana children ages 6-11 years, with the peak number of visits in 2012 with 37,815 ED visits.
- The majority of ED visits were due to unintentional injury (99.0%, n=107,514), followed by assault/abuse (0.7%, n=792), undetermined or other intent (0.1%, n=109), and self-inflicted (0.1%, n=109).
- The leading causes of injury-related ED visits in children ages 6-11 were falls (34%, n = 36,647), striking against or being struck by an object or person, (23%, n = 24,551) and natural or environmental causes, including insect stings and dog bites (9.2%, n = 9,937).
- Of the 9,937 ED visits of children ages 6-11 years for traffic-related injuries, one-half involved bicycles or tricycles (51.4%, n= 5,111) and 25% involved motor vehicle occupants (n=2,518).
- There were 10,173 ED visits due to traumatic brain injuries, which may have been sustained through sports and recreation, motor vehicle collisions, or other mechanisms.



**Injuries result in more than 108,500 Emergency Department visits among school-age children\*\***

Transport-related Circumstances:

- Motor Vehicle (MV)-Occupant: 25.3%
- Bicycle/Tricycle (MV & non-MV): 51.4%
- Pedestrian (MV & non-MV): 3.3%
- Other transport: 19.0%
- Unspecified: 0.9%

\*\*Injury-related emergency department cases selected based on IC-9 primary diagnosis codes with external cause of injury codes.

1. Transport-related includes motor vehicle occupant, bicycle/tricycle (MV & non-MV), pedestrian (MV & non-MV), and other transport.

2. Overexertion: Injury from working the body or parts of the body too hard, resulting in damage to muscle, tendon, ligament, cartilage, joint, or peripheral nerve. This category represents the common causes of strains, sprains, and twisted ankles resulting from overexertion due to lifting, pushing, or pulling. ICD-9 external cause of injury codes: E927.0-4,.8-.9.



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## Special Emphasis Report: Injuries Among School-Age Children 6-11, 2011- 2013

**Table 1: Injury-Related Deaths, Hospitalizations and Emergency Department (ED) Visits\*\* among Children Ages 6-11 Years, by Age Group, Indiana, 2011-2013**

	Children Ages 6-11		
	Deaths	Hospitalizations	ED Visits
<b>Unintentional Injuries</b>	<b>56</b>	<b>263</b>	<b>107,514</b>
Cut/pierce	U	13	7,991
Drowning/submersion	11	11	35
Falls	U	308	36,647
Fire/Burn	7	69	1,199
Foreign Body	U	21	2,238
Natural and Environmental	U	31	8,520
<i>Excessive heat</i>	U	U	93
<i>Dog bites</i>	U	19	3,028
<i>Other bites/stings/animal injury</i>	U	12	5,356
<i>All other natural/environmental</i>	U	U	41
Overexertion	U	10	6,170
Poisoning	U	26	489
Struck-by/against object	U	80	24,551
Suffocation	6	U	25
Transport-related	26	338	9,937
<i>Motor vehicle (MV)-occupant</i>	9	109	2,518
<i>Bicycle/tricycle (MV &amp; non-MV)</i>	U	86	5,111
<i>Pedestrian (MV &amp; non-MV)</i>	6	51	323
<i>Other transport</i>	U	106	1,891
All other unintentional causes	U	46	9,712
<b>Assault/Abuse</b>	<b>12</b>	<b>8</b>	<b>792</b>
<b>Suicide/Self-inflicted</b>	<b>U</b>	<b>7</b>	<b>109</b>
<b>Undetermined/Other Intent</b>	<b>U</b>	<b>6</b>	<b>144</b>
<b>Total Injury-Related Cases</b>	<b>74</b>	<b>975</b>	<b>108,559</b>

Counts fewer than 5 are suppressed (U)

\*\*Injury-related hospitalization cases selected based on ICD-9 primary diagnosis codes with external cause of injury codes. Injury-related emergency department cases selected based on ICD-9 primary diagnosis codes with external cause of injury codes.

Details of cause categories are in Appendix A and B of Gabella BA, Proescholdbell SK, Hume B, et. al. State Special Emphasis Report: Instructions for Preparing Infant and Early Childhood Injury Data. Atlanta (GA): Centers for Disease Control and Prevention, National Center for Injury Prevention and Control; 2012.





# INDIANA

## Special Emphasis Report: Injuries Among School-Age Children 6-11, 2011- 2013

### Indiana Child Injury Prevention Activities

Because injury is the leading cause of death for Hoosiers ages 1 to 44 years, the Division of Trauma and Injury Prevention at the Indiana State Department of Health (ISDH) works to prevent injuries and create a healthier and safer Indiana.

**Actions:** The **Indiana Statewide Trauma System Injury Prevention Plan** is currently being drafted and will include statewide direction and focus for child injury prevention, specifically, child passenger safety and bullying.

**Surveillance:** The Division of Trauma and Injury Prevention conducts statewide injury surveillance through death certificates, hospitalizations, and ED visits. The Indiana Trauma Registry captures statewide trauma data for all seriously injured for the purposes of identifying the trauma population, statewide process improvement activities, and research.

**Partnerships:** The **Indiana Injury Prevention Advisory Council**, made up of members working in injury and violence prevention, works to reduce the number and severity of preventable injuries in Indiana through leadership and advocacy.

**Communications:** The Division of Trauma and Injury Prevention is active on the State Department of Health’s social media pages, utilizing the hashtag #SafetyIN to deliver up-to-date safety and injury prevention information.



### Indiana Violent Death Reporting System



Indiana is one of 32 states to receive funding for the Centers for Disease Control (CDC) Collecting Violent Death Data Using the National Violent Death Reporting System. The purpose of the funding is to improve the planning, implementation, and evaluation of violence prevention programs. The INVDRS will monitor and assess the magnitude, trends, and characteristics of violent deaths through collecting comprehensive data from various existing data sources. The grant will be administered by the State Department of Health’s Division of Trauma and Injury Prevention.

The INVDRS will:

- Collect comprehensive, objective, and accurate population-based information on victims, suspects, weapons, and circumstances related to homicides, suicides, unintentional firearm injuries, legal intervention deaths, deaths of undetermined intent, and terrorism deaths.
- Combine data from multiple sources, including death certificates, coroner records, law enforcement reports, and other additional data to increase scientific understanding of violent injury to be translated into prevention strategies for state, local, and national efforts.
- Contribute de-identified data to the National Violent Death Reporting System (NVDRS) funded by the Centers for Disease Control and Prevention, National Center for Injury Prevention and Control.

The Indiana Violent Death Reporting System (INVDRS) will capture 100% of violent death incidents among children in Indiana beginning January 1, 2015.



# INDIANA

## Special Emphasis Report: Injuries Among School-Age Children 6-11, 2011- 2013

### Indiana Child Fatality Review Program

#### Mission

The Indiana Child Fatality Review (CFR) Program attempts to better understand how and why children die, take action to prevent other deaths, and improve the health and safety of our children.

#### Operating Principles

- The death of a child is a community responsibility and should motivate community members into action to prevent future injury and death.
- Review requires multidisciplinary participation and should lead to an understanding of the risk factors involved in the death.
- Reviews should focus on prevention and lead to effective recommendations and action steps to keep children safe and protected.

#### Objectives

- Ensure the accurate identification and uniform, consistent reporting of cause and manner of death of every child
- Improve agency responses in the investigation of child deaths
- Identify significant risk factors and trends in child deaths
- Identify and advocate for needed changes in legislation, policy, and practice to prevent child deaths
- Increase public awareness of the issues that affect the health and safety of our children

#### Overview of the Program

CFR is a collaborative process that can help us better understand why children and teens die within the community, and help us identify how we can prevent future deaths. On July 1, 2013, a new Indiana law (IC 16-49) went into effect, requiring CFR teams in each county, with coordination and support for these teams to be provided by the Indiana State Department of Health (ISDH). IC 16-49 also required that a coordinator position be created under the ISDH to help support and coordinate the local teams and Statewide Child Fatality Review Committee, whose members are appointed by the Governor.

CFR teams are multidisciplinary, professional teams which conduct a comprehensive, in-depth review of a child’s death and the circumstances and risk factors involved, and then seek to understand how and why the child died to prevent future injury and death. Each local CFR team is required to have representation from the coroner/deputy coroner, pathologist, pediatrician or family practice physician, and local representatives from law enforcement, health department, Department of Child Services (DCS), emergency medical services, a school district within the region, fire responders, the prosecuting attorney’s office, and the mental-health community. The teams are required to review all deaths of children under the age of 18 that are sudden, unexpected or unexplained, all deaths that are assessed by DCS, and all deaths that are determined to be the result of homicide, suicide, accident, or are undetermined. The local teams provide data collected from their reviews to the Statewide Child Fatality Review Committee, which then classifies the details of these deaths, identifies trends, and informs efforts to implement effective statewide prevention strategies.

#### Overlap of Child Fatality Review and Indiana Violent Death Reporting System

The INVDRS will capture 100% of violent death incidents among children in Indiana beginning January 1, 2015 by utilizing and enhancing the work done through CFR.

CFR	CFR & INVDRS	INVDRS
<ul style="list-style-type: none"> <li>• Focuses on local community and statewide action</li> <li>• Represents at least 79 of Indiana’s 92 counties</li> <li>• Contributes data to National CDR Case Reporting System on a team by team basis</li> </ul>	<ul style="list-style-type: none"> <li>• Use discrete reporting system to compile data for analysis</li> <li>• Examine extensive background and circumstance information on victims, suspects, relationships, weapons, and life events related to the incident</li> <li>• Shared stakeholders, data providers and data users</li> <li>• Works to prevent future deaths by examining associated risk factors and warning signs</li> </ul>	<ul style="list-style-type: none"> <li>• Focuses on state-based data collection and dissemination</li> <li>• Captures death certificate data from 100% of Indiana counties</li> <li>• Contributes data to NVDRS in conjunction with 31 other states</li> </ul>



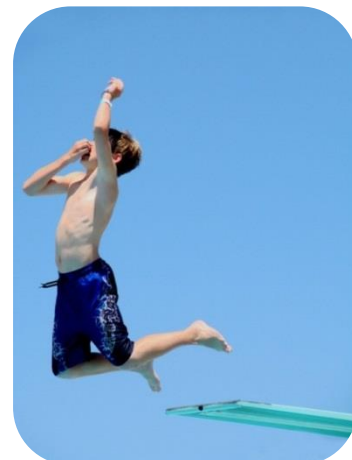
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## Special Emphasis Report: Injuries Among School-Age Children 6-11, 2011- 2013

### Child Injuries are Preventable: Prevention Tips

#### Poisoning:

- **Poison proof your home:** Keep medications and toxic products, such as household cleaning products, in their original containers or packaging and away from children.
  - Follow label directions and read all warnings when giving medication to children.
  - Dispose of unwanted or unneeded medications safely at prescription Drug Take-Back Events.
  - Call the **Indiana poison control center (1-800-222-1222)** if you think your child has been poisoned, but is alert and awake or if you have questions concerning poisoning.
  - Call **911** if you have a poison emergency and your child has collapsed or is not breathing.
- For more information, visit: <http://www.cdc.gov/safecild/Poisoning/index.html>



#### Fire, Burn & Scald:

- Young children are more likely to sustain injuries from scald burns caused by hot liquids or steam. **Check water heater temperature** and bath water temperatures.
- **Install working smoke alarms** and **carbon monoxide alarms** on every floor of your home and near all rooms where family sleep.
- Test smoke alarms once a month to ensure they are working properly, replace batteries every year and replace devices every 10 years.
- **Make an escape plan** and practice it with your family to be prepared should you have a house fire.
- Call **911** if you have a fire emergency.

For more information, visit:

<http://www.cdc.gov/safecild/Burns/index.html>

#### Water Safety & Drowning:

- **Supervise** children when they are in or near water, including bathtubs, lakes, and pools.
- Do not allow kids to run around the pool deck.
- Teach kids basic swimming skills and learn cardiopulmonary resuscitation (CPR).
- Make sure kids wear life jackets in and around natural bodies of water, even if they know how to swim.
- Install four-sided isolation fence with self-closing and self-latching gates around backyard swimming pools.
- Call **911** if you have a drowning emergency.

For more information, visit:

<http://www.cdc.gov/safecild/Drowning/index.html>

#### Motor Vehicle Collision:

- Children become more vulnerable to motor vehicle collision injuries as they age.
- Most deaths of children age 5-19 years are due to traffic injuries as occupants, pedestrians, bicyclists, and motorcyclists.<sup>1</sup>
- American Academy of Pediatrics recommends using a booster seat age 5 up to when the seat belt fits properly, which is when the child is at least 57 inches tall.
- **Kids 12 years and under should ride in the back seat** using a seat belt, no matter how short of the drive.
- Take action against distractions while driving, such as texting, loud radios, speeding, and reckless behaviors.

For more information, visit:

<http://www.cdc.gov/motorvehiclesafety/>

#### Sports & Recreation:

- Kids can suffer a wide range of injuries such as broken bones, bruises, lacerations, and concussions or traumatic brain injuries (TBI) from sports and recreation activities.
- Ensure that children use **age- and size- appropriate** playground equipment, and avoid playgrounds with non-impact absorbing surfaces, such as asphalt, concrete, or dirt.
- Wear the proper **protective gear** when playing active sports to prevent fall injuries, such as wrist guards, knee and elbow pads, and helmets. Make sure your child wears the right size helmet every time when riding, skating, and scooting.
- Ask your child's coaches if they have had concussion and sports safety training. Learn the signs and symptoms of TBI.

For more information, visit:

[http://www.cdc.gov/safecild/Sports\\_Injuries/index.html](http://www.cdc.gov/safecild/Sports_Injuries/index.html)

1) Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. National Action Plan for Child Injury Prevention. Atlanta (GA): CDC. NCIPC: 2012





# INDIANA

## Special Emphasis Report: Injuries Among School-Age Children 6-11, 2011- 2013

### Resources

**Indiana State Department of Health**  
2 North Meridian Street  
Indianapolis, Indiana 46204

**Indiana Child Fatality Review Program**

Phone: (317)233-1240  
Email: [GMartin1@isdh.IN.gov](mailto:GMartin1@isdh.IN.gov)  
Website: <http://www.in.gov/isdh/26349.htm>

**Maternal and Child Health Division**

Phone: (317)233-7940  
Email: [bfranklin@isdh.IN.gov](mailto:bfranklin@isdh.IN.gov)  
Website: <http://www.in.gov/isdh/19571.htm>

**Trauma and Injury Prevention Division**

Phone: (317)233-7716  
Email: [Indianatrauma@isdh.IN.gov](mailto:Indianatrauma@isdh.IN.gov)  
Website: <http://www.in.gov/isdh/19537.htm>

**Indiana Department of Child Services**

402 W. Washington Street  
Indianapolis, IN 46204  
Email: [Communciations@dcs.IN.gov](mailto:Communciations@dcs.IN.gov)  
Website: <http://www.in.gov/dcs/2869.htm>

**Indiana Child Abuse/ Neglect Hotline:**

Phone: 1-800-800-5556

**Indiana Family Helpline**

Phone: 1-855-HELP-1ST (1-855-435-7178)  
Website: <http://www.in.gov/isdh/21047.htm>

**Indiana Poison Center**

Poison Helpline: 1-800-222-1222  
<http://indianapoisson.org/>

**American Academy of Pediatrics**

[www.aap.org](http://www.aap.org)

**Automotive Safety Program**

<http://www.preventinjury.org/>

**Children’s Safety Network**

[www.childre.ssafetynetwork.org](http://www.childre.ssafetynetwork.org)

**PACER’s National Bullying Prevention Center**

Elementary School Students:  
[www.PACERKidsAgainstBullying.org](http://www.PACERKidsAgainstBullying.org)  
Parents and Professionals:  
[www.PACER.org/Bullying](http://www.PACER.org/Bullying)



**Safe Child Program**

[www.cdc.gov/safekids](http://www.cdc.gov/safekids)

**Safe Kids Indiana/ Safe Kids Worldwide**

<http://www.safekids.org/>

This report and other Indiana injury data reports are available on the ISDH website. Requests for data may also be submitted to the ISDH Trauma and Injury Prevention Division.

**Data Notes:** All data in this report are based on the CDC injury definition, whereby injury cases are based on ICD-10 underlying cause codes (deaths), ICD-9-CM primary diagnosis codes (hospitalizations), or either an ICD-9-CM primary diagnosis code or an external cause of injury code (E-codes) (ED visits). Not every injury case may be coded with an E-code, and because the analysis of the mechanism of injury is dependent upon the E-code, the aggregate numbers may be different. Deaths and transfers may be included in hospitalization and ED visit data. All data in this report are based on calendar years. *All injuries are considered unintentional unless otherwise specified.*

**Data Sources:** Indiana State Department of Health, Epidemiology Resource Team Data Analysis Team. Document prepared by ISDH Division of Trauma and Injury Prevention, Division of Maternal and Child Health, and Child Fatality Review Program.



### INDIANA STATE DEPARTMENT OF HEALTH

<http://www.indianatrauma.org>

Released March 2015