



# INDIANA

## Special Emphasis Report: Injury Among Middle and High School Teens, 2016

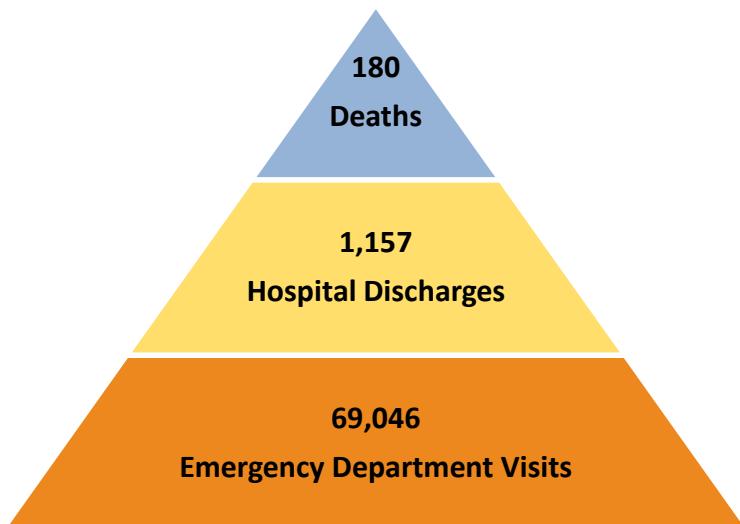
### Injury is a Leading Cause of Death in Children

#### By the numbers

Injuries are a major public health problem across the United States and in Indiana. Injuries are not random events. They follow a predictable sequence of events and can be prevented using specific injury prevention strategies. In 2016, there were 180 injury-related deaths of Indiana children ages 12-18.

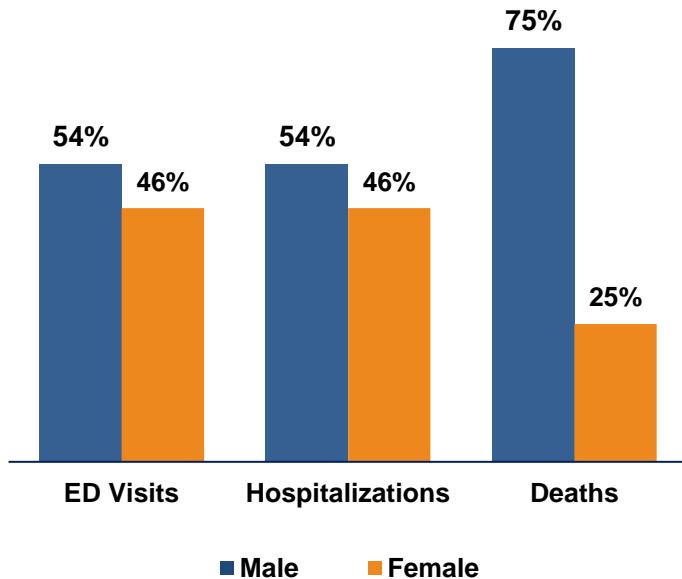
In addition to injury-related mortality, there were 869 hospitalizations and 48,260 emergency department (ED) visits. Children who received treatment in physician offices or at home were not included in this frequency report.

Figure 1: Injury Deaths among Children  
Ages 12-18 years, Indiana, 2016



For every child who died from injury, 6 were hospitalized, and nearly 384 were treated in emergency departments.

Figure 2: Percent of Injury Deaths, Hospitalizations and Emergency Department Visits Among Children  
Ages 12-18 Years, by Sex, Indiana, 2016



#### Childhood Injury by Sex

Indiana Males ages 12-18 were consistently higher in all three categories (deaths, hospitalizations and ED visits) than females, accounting for a larger overall number of injuries. The largest difference between males and females were observed in injury-related deaths. Males died from injury three times more than females in this age category.

\*ED visits, hospitalizations and mortality data are all based on ICD-10-CM external cause codes or ICD-10 underlying cause codes of unintentional and intentional injury for the calendar year 2016. This document was produced in conjunction with CDC's Core Violence and Injury Prevention Program under Cooperative Agreement 11-1101.



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### Injury Deaths in Indiana Teens

#### Injury Deaths in Children Ages 12-14

There were 23 deaths in children ages 12-14 years old that resulted from injury. 11 were unintentional, 9 were suicides, 2 were homicides, and 1 was undetermined.

The leading cause (39%) of injury death was suicide. The next two resulted from drowning at 17% and transport-related injuries at 13%.

Suicide death was more prevalent among boys and contributed to 77.8% of total suicides for this age category.

Figure 3: Percent of Injury Deaths, Hospitalizations and Emergency Department Visits Among Children Ages 12-18 Years, by Sex, Indiana, 2016

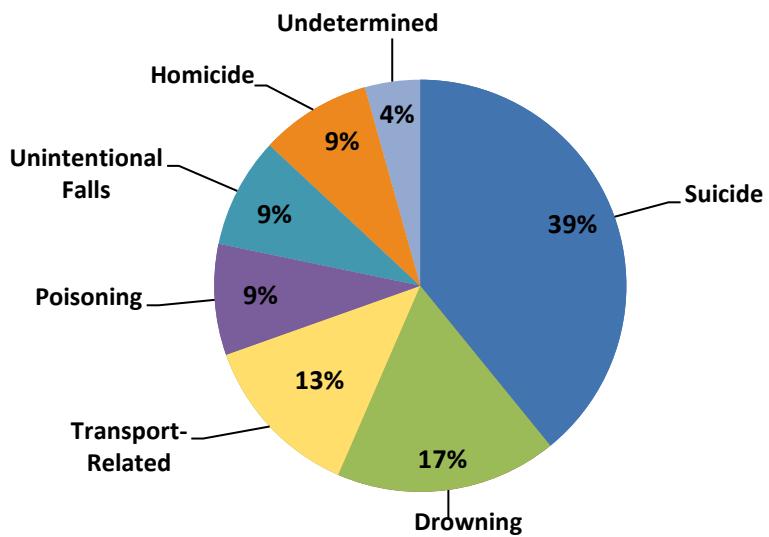
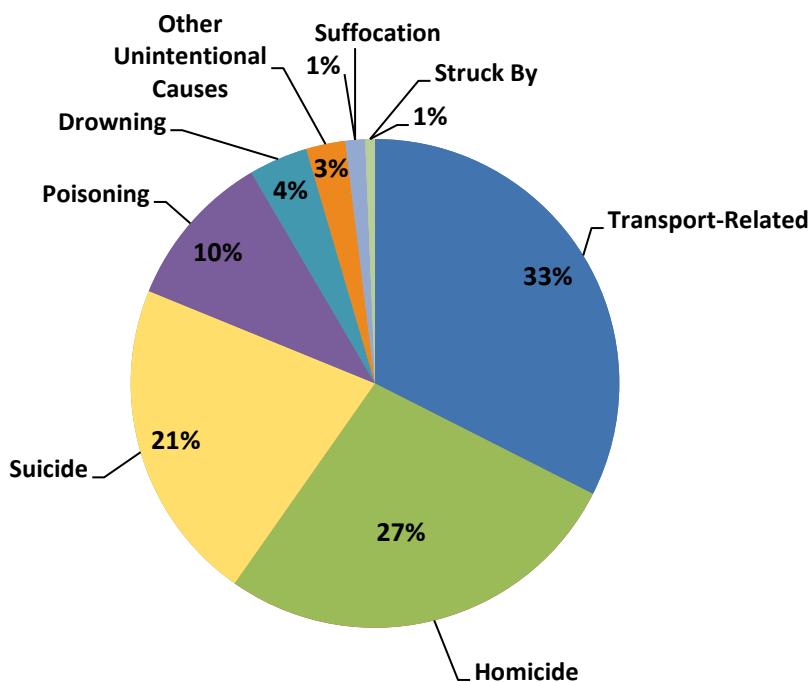


Figure 4: Injury Deaths in Teens  
Ages 15-18 Years, Indiana, 2016



#### Injury Deaths in Teens Ages 15-18

There were 157 deaths in teens ages 15-18 years old that resulted from injury and nearly 75% were males. 82 were unintentional, 42 were homicides, and 33 were suicides.

The leading cause (33%) of injury death was transport-related. Males accounted for 62% of all transport-related injury deaths.

The second leading cause (27%) was homicide. Males accounted for 92.9% of all homicides deaths.

The third (21%) was suicide. These three categories together comprised more than 80% of all teen injury-related deaths.



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### Indiana Child Injury Prevention Activities

Because injury is the leading cause of death for Hoosiers ages 1 – 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.

Division Mission: To develop, implement and provide oversight of a statewide comprehensive trauma care system that:

- Prevents injuries
- Saves lives
- Improves the care and outcomes of trauma patients

Division Vision: Prevent injuries in Indiana

**Preventing Injuries in Indiana:** Injury Prevention Resource Guide provides easily accessible and understandable information and data on the size and scope of specific injuries in Indiana while highlighting effective evidence-based solutions to the injury problem.

The **Indiana Statewide Trauma System Injury Prevention Plan** includes statewide direction and focus for child injury prevention, specifically safe sleep, child passenger safety and bullying.

**Prescription Drug Overdose Prevention for States:** ISDH has received funding to help prevent overdose deaths related to prescription opioids as part of the Centers for Disease Control and Prevention's (CDC's) Prescription Drug Overdose program. Funding supports enhancements to INSPECT, the state's prescription drug monitoring program; improvements to opioid prescribing practices; prevention efforts at the state and community levels to address new and emerging problems related to prescription drug overdoses; and a partnership with the IU Fairbanks School of Public Health to evaluate the state's opioid prescribing practices. ISDH expands the collection of overdose information to provide additional data regarding opioid overdose at the county level and will help inform prevention efforts and expand use of data for public health surveillance.

**Surveillance:** The ISDH Division of Trauma and Injury Prevention conducts statewide injury surveillance through death certificates, hospitalizations and emergency department visits. The Indiana Trauma Registry captures statewide trauma data for all seriously injuries to identify the trauma population, and for statewide process improvement activities and research.

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

**Communication:** The division is active on Twitter [@INDTrauma](#), with the hashtag [#SafetyIN](#) to deliver up-to-date safety and injury prevention information.

### Indiana Violent Death Reporting System

All 50 states receive funding for the 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 Indiana Violent Death Reporting System (INVDRS) monitors and assesses the magnitude, trends and characteristics of violent deaths by collecting comprehensive data from various existing data sources.

The INVDRS:

- Collects 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.
- Combines 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 local, state and national efforts.
- Contributes de-identified data to the National Violent Death Reporting System (NVDRS) funded by the CDC's National Center for Injury Prevention and Control.

Email: [INVDRS@isdh.IN.gov](mailto:INVDRS@isdh.IN.gov)



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### 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.

#### Program Overview

CFR is a collaborative process that can help us better understand why children and teens die within the community and how we can prevent future deaths. A new Indiana law (IC 16-49) went into effect July 1, 2013, that requires a CFR team in each county, with coordination and support provided by ISDH. IC 16-49 also required that a coordinator position be created at 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 that conduct comprehensive, in-depth reviews of a child's death and the circumstances and risk factors involved. The teams then work 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; a pathologist; a pediatrician or family practice physician; and local representatives from law enforcement, the 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 younger than age 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 (INVDRS)

The INVDRS has captured 100% of violent death incidents among children in Indiana since Jan. 1, 2015, by using and enhancing the work done through CFR.

CFR	CFR and INVDRS	INVDRS
<ul style="list-style-type: none"><li>• Focuses on local community and statewide action</li><li>• Represents at least 90 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>• Share stakeholders, data providers and data users</li><li>• Work 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 50 other states</li></ul>



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### Teen Driver Safety

Kids and teens become more vulnerable to motor vehicle injuries as they age. In 2016, 2,433 teens in the United States ages 16-19 were killed for injuries sustained in motor vehicle crashes.<sup>1</sup> Although teens drive less often than most others, they are involved in a disproportionately higher number of crashes. The fatal crash rate per mile driven for 16- to-19 year olds is nearly three times more likely than drivers ages 20 and older, and the motor vehicle death rate for male drivers ages 16 to 19 was two times that of their female counterparts.<sup>2</sup>

**Parents are the Key** is a CDC initiative to reduce teen motor vehicle injury and death through teen parents having conversations about safety, practicing safe driving together and leading by example. The Parent-Teen Driving Agreement to put in writing the expectations and limits for your teen driver.

### Concussions

A concussion is a type of traumatic brain injury caused by a bump, blow or jolt to the head. The sudden movement in the brain causes stretching, which damages the cells and creates chemical changes in the brain, leaving the brain susceptible to further injury until recovery is complete. Athletes who have ever had a concussion are at greater risk for another. In rare cases, repeat concussions can result in brain swelling, permanent brain damage or even death.

**Kids and teens are more likely to get a concussion and take longer to recover than adults.** Parents and coaches should teach kids and teens that all concussions are serious, they should be reported and it takes time to recover. Coaches who suspect a player has sustained a concussion should take him/her out of play and seek the advice of a healthcare professional. To learn more, visit CDC's Heads Up: Concussion at <http://www.cdc.gov/concussion/headsup/>.

### Suicide Prevention

Suicide is the third leading cause of death for youth in Indiana between the ages of 10 and 14 and the second leading cause of death in youth between the ages of 15-24.<sup>1</sup> Boys are more likely to die from suicide compared to girls, although girls are more likely to report attempting suicide than boys.<sup>3</sup>

There are several risk factors and warning signs for suicide. However, having risk factors for suicide does not always mean suicide will occur. The presence of resiliency factors can lessen the potential risk factors that lead to suicidal ideation and behaviors, including peer and family support, community connectedness, access to effective medical and mental health resources and adaptive coping skills.

#### Risk factors for suicide may include, but are not limited to:

- History of previous suicide attempts
- Family history of suicide
- History of depression or other mental illness
- Alcohol or drug abuse
- Stressful life event or loss
- Easy access to lethal methods
- Exposure to the suicidal behavior of others

#### Warning signs are more immediate signs of suicide risk and may include:

- Talks of killing oneself
- Collecting means of or planning death
- Changes in mood, including anxiety, irritability, loss of interest, depression or feelings of hopelessness



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### Resources

**Indiana State Department of Health**  
2 N. Meridian St. Indianapolis, IN 46204  
Website: [www.StateHealth.IN.gov](http://www.StateHealth.IN.gov)

**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  
Website: <http://www.in.gov/isdh/19571.htm>

**Trauma and Injury Prevention Division**  
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 St. Indianapolis, IN 46204  
Email: [Communications@dcs.IN.gov](mailto:Communications@dcs.IN.gov)  
Website: <http://www.in.gov/dcs/2869.htm>

**Indiana Bureau of Motor Vehicles Guide for Parents and Teens**  
[http://www.in.gov/bmv/files/Driver\\_Guide\\_for\\_Parents\\_and\\_Teens.pdf](http://www.in.gov/bmv/files/Driver_Guide_for_Parents_and_Teens.pdf)

**Indiana Child Abuse/Neglect Hotline**  
Phone: 1-800-800-5556

**Indiana Criminal Justice Institute: Rule the Road**  
Website: <http://www.in.gov/cji/2382.htm>  
Phone: (317) 232-1233

**Safe Child Program**  
Website: [www.cdc.gov/safecommunity](http://www.cdc.gov/safecommunity)

**Indiana Poison Control**  
Phone: 1-800-222-1222  
Website: <http://www.indianapoison.org/>

**Indiana Attorney General Prescription Drug Abuse Task Force**  
Website: <http://www.in.gov/bitterpill/>

**American Academy of Pediatrics**  
Website: <http://www.aap.org/>

**Automotive Safety Program**  
Website: <http://www.preventinjury.org/>

**Children's Safety Network**  
Website: <http://www.childrensafetynetwork.org/>

**PACER's National Bullying Prevention Center for Teens**  
Website: [www.PACERTeensAgainstBullying.org/](http://www.PACERTeensAgainstBullying.org/)

**National Suicide Prevention Lifeline**  
1-800-273-TALK (8255)

**Teen Suicide Hotline**  
1-800-SUICIDE (784-2433)

**National Domestic Violence Hotline**  
1-800-799-SAFE (7233)

**Safe Kids Indiana/Safe Kids Worldwide**  
Website: <http://www.safekids.org/>

1. Centers for Disease Control and Prevention. WISQARS (Web-based Injury Statistics Query and Reporting System) [Online] Atlanta, GA: U.S. Department of Health and Human Services, CDC; 2016. Available at <https://www.cdc.gov/injury/wisqars/index.html>. Accessed 30 January 2019.
2. Insurance Institute for Highway Safety (IIHS). Fatality Facts: Teenagers 2016. Arlington, VA: The Institute; 2017. Available at <http://www.iihs.org/iihs/topics/t/teenagers/fatalityfacts/teenagers>. Accessed 30 January 2019.
3. Centers for Disease Control and Prevention. Suicide Among Youth. Atlanta, GA: U.S. Department of Health and Human Services, CDC; 2017. Available at <https://www.cdc.gov/healthcommunication/toolstemplates/entertainmenttips/SuicideYouth.html>. Accessed 30 January 2019.
4. Gabella BA, Proescholdbell SK, Hume B, Hedin R, Johnson RL, Thomas KE. 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.

All data in this report are based on the CDC's definition of injury and are based on ICD-10 underlying cause codes (deaths) or ICD-10-CM external cause codes (hospitalizations and ED visits). All data in this report are for the calendar year 2016. All injuries are considered unintentional unless otherwise specified. 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.

Data sources: Indiana State Department of Health. Document prepared by ISDH Division of Trauma and Injury Prevention.