



# INDIANA

## Special Emphasis Report: Middle & High School Teen Injury, 2015

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

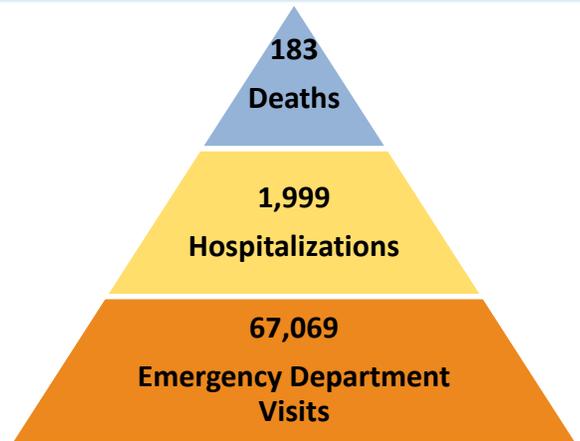
Injuries are a major public health problem across the United States and in Indiana. Injuries are not random chance events, but follow a predictable sequence of events and can be prevented using specific strategies. In 2015, 183 Indiana children ages 12 – 18 years died due to injury. There were 28 deaths among 12- to 14-year-olds and 155 deaths among 15- to 18-year-olds. Forty-seven of the injury deaths were suicides, of which nearly 51% were due to discharge of firearms. Thirty-nine of the injury deaths were due to homicide/assault.

In addition to these injury deaths, there were 1,999 injury-related hospitalizations, of which 1,132 were among 12- to 14-year-olds and 867 were among 15 – 18 years. There also were 67,069 emergency department (ED) visits. These numbers do not include teens who received treatment in physician offices or at home.

#### 2015 Indiana Injury Facts

- 183 teens aged 12 – 18 died due to injury.
- There were 1,999 teen injury-related hospitalizations.
- 67,069 teen ED visits were made due to injury.
- More male teens were injured, treated in EDs, hospitalized and died than female teens.
  - 2 in 3 injury deaths were boys.
  - 2 in 3 suicide deaths were boys.

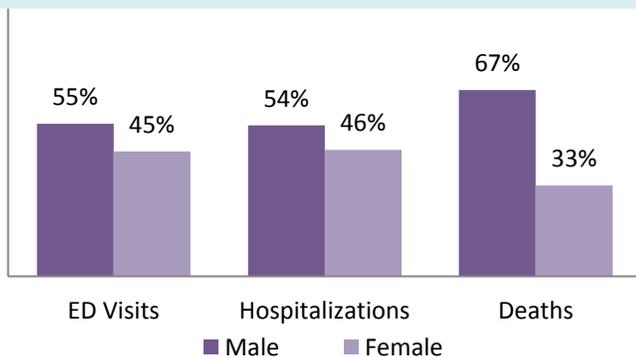
Figure 1: Annual Injuries\* among Children Ages 12-18 Years, Indiana, 2015



*For every teen who died, 11 teens were hospitalized and nearly 366 were treated in EDs.*

*Every day there were more than 189 injury-related ED visits and hospitalizations among teens.*

Figure 2: Percent of Injury Deaths, Hospitalizations and Emergency Department Visits among Teens Ages 12-18 Years, by Sex, Indiana, 2015



### Child Injury by Sex

Males accounted for a greater number of injuries and had higher rates of injury-related medical treatment in Indiana among teens ages 12 – 18 years compared to females. More male teens aged 12 – 18 years were treated in EDs, were hospitalized and died due to injury compared to females of the same age.

\*Hospitalizations and ED visit data are based on ICD-9-CM primary diagnostic code of injuries and poisoning for federal fiscal year Oct. 1, 2014 – Sept. 30, 2015. Death data are based on ICD-10 codes and are for calendar year 2015.





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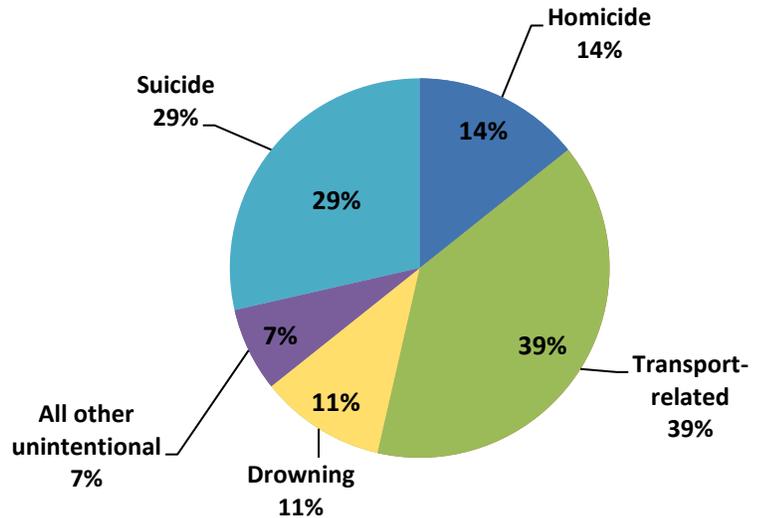
## Special Emphasis Report: Middle & High School Teen Injury, 2015

### Injury Deaths in Middle School Teens 12 – 14 Years

#### Age 12 – 14 Injury Facts

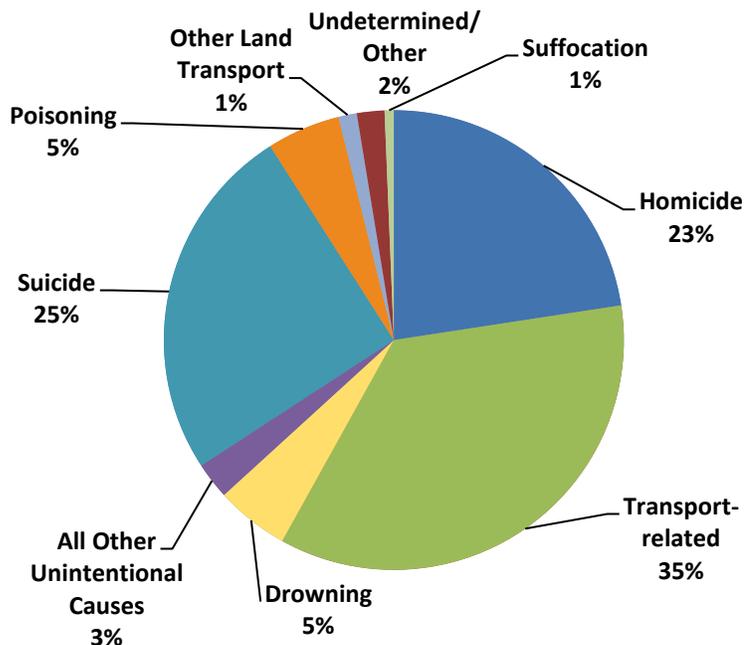
- 28 deaths among middle school kids.
- 16 unintentional deaths, 8 suicides and 4 homicides.
- Nearly 2 in 5 injury deaths among middle school kids were due to motor vehicle collisions.
  - 36.4% of motor vehicle decedents were occupants.
- Nearly 1 in 3 injury deaths were due to suicide (29%).
  - 62.5% of suicide deaths were among boys.

Figure 3: Injury Deaths among Teens Ages 12 – 14 Years, Indiana, 2015



### Injury Deaths in High School Teens 15 – 18 Years

Figure 4: Injury Deaths in Teens Ages 15 – 18 Years, Indiana, 2015



#### Age 15 – 18 Injury Facts

- 155 deaths among older teens.
- 78 unintentional deaths, 39 suicides and 35 homicides.
- Motor vehicle traffic-related injuries were the leading cause of injury death.
  - 29.1% of motor vehicle decedents were occupants.
- One in four older teen injury deaths were suicides.
  - Of the 39 suicides, 21 involved firearms and 15 involved suffocation.



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### Indiana Teen 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.

**Actions:** The **Indiana Statewide Trauma System Injury Prevention Plan** is currently being drafted and will include opportunities for collaborative injury prevention efforts in traffic safety, poisoning and traumatic brain injury.

**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 Twitter @INDTrauma, utilizing the hashtag #SafetyIN to deliver up-to-date safety and injury prevention information.



### Indiana Violent Death Reporting System



Indiana is one of 42 states to receive funding for the Centers for Disease Control and Prevention (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 state, local and national efforts.
- Contributes de-identified data to the National Violent Death Reporting System (NVDRS) funded by the CDC, National Center for Injury Prevention and Control.

Contact: [INVDRS@isdh.in.gov](mailto:INVDRS@isdh.in.gov)

**Potential impact on Indiana youth:** Indiana students **were more likely than** students across the U.S. to attempt suicide, according to the 2015 Youth Behavior Risk Survey. In 2015, **19.8%** of Indiana high school students seriously considered attempting suicide and **9.9%** of Indiana high school students reported attempting suicide one or more times during the previous 12 months.<sup>1</sup> By examining the circumstances around suicide deaths and other forms of violence, Indiana can work toward preventing early death among youths.

1. Indiana State Department of Health (2016). Youth Risk Behavior Surveillance, 2015.



# INDIANA

## Special Emphasis Report: Middle & High School Teen Injury, 2015

### 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 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 ISDH. IC 16-49 also required that a coordinator position be created under 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 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; 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 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 or 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 captures 100% of violent death incidents among children in Indiana beginning 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 National Violent Death Reporting System in conjunction with 31 other states</li> </ul>



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### Teen Driver Safety

As kids and teens age, they become more vulnerable to motor vehicle injuries. The CDC estimates 3,000 teens lose their lives each year due to motor vehicle collisions-- **eight teens die each day**<sup>2</sup>. While teens drive less 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 four to six times the risk of older drivers (age 30 – 59 years), and the fatal crash risk is highest at age 16.<sup>3</sup>

**Parents are the Key** to safe teen drivers is an initiative by the CDC to reduce teen motor vehicle injury and death through teen parents by 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.

### CDC's Eight Danger Zones for Teen Driver:

- 1) Driver inexperience
- 2) Driving with teen riders
- 3) Nighttime driving
- 4) Not using seat belts
- 5) Distracted driving
- 6) Drowsy driving
- 7) Reckless driving
- 8) Impaired driving

### Concussion

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 health care professional.** To learn more, visit **CDC's Heads Up: Concussion** at <http://www.cdc.gov/concussion/headsup/>.

#### Symptoms reported by athlete:

- Headache
- Pressure in head
- Nausea or vomiting
- Balance problems or dizziness
- Blurred or double vision
- Sensitivity to light or noise
- Concentration or memory problems
- Confusion
- Feeling sluggish, hazy, foggy or groggy
- Just not "feeling right" or "feeling down"

#### Signs observed by parents and coaches:

- Appears dazed or stunned
- Is confused about the assignment or position
- Forgets an instruction
- Unsure of game, score or opponent
- Moves clumsily
- Answers questions slowly
- Loses consciousness, even if briefly
- Shows mood, behavior or personality changes

If you or someone you know is having thoughts of suicide, call the **National Suicide Prevention Lifeline: 1-800-273-TALK (1-800-273-8255)**

### Suicide Prevention

**Suicide is the third-leading cause of death for youth** between the ages of 10 and 24 years and results in approximately 4,600 youth lives lost per year in the United States.<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.

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

2. CDC, NCIPC. Web-based Injury Statistics Query and Reporting System (WISQARS) [online]. (20014). Available from [www.cdc.gov/injury/wisqars](http://www.cdc.gov/injury/wisqars)

3. Insurance Institute for Highway Safety. Fatality facts-teenagers. 2010. Available from <http://www.iihs.org/iihs/topics/t/teenagers/fatalityfacts/teenagers>



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### Resources

#### Indiana State Department of Health

2 N. Meridian St.  
Indianapolis, IN 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  
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: [Communciations@dcs.IN.gov](mailto:Communciations@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/DriverGuideforParentsandTeens.pdf)

#### Indiana Child Abuse/ Neglect Hotline

Phone: 1-800-800-5556

#### Indiana Criminal Justice Institute: Rule the Road

<http://www.in.gov/cji/2382.htm>  
Phone: (317) 232-1233

#### Indiana Poison Center

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

#### Indiana Attorney General Prescription Drug Abuse Task Force

<http://www.in.gov/bitterpill/>

#### American Academy of Pediatrics

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

#### Automotive Safety Program

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

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

#### Children's Safety Network

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

#### PACER's National Bullying Prevention Center for Teens

[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

#### Safe Child Program

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

#### Safe Kids Indiana/Safe Kids Worldwide

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

**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). Hospitalizations and ED visit data are based on ICD-9-CM primary diagnostic code of injuries and poisoning for federal fiscal year Oct. 1, 2014 – Sept. 30, 2015. 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. Death data are based on ICD-10 codes and are for calendar year 2015. Deaths and transfers may be included in hospitalization and ED visit data. *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. This document was supported by the Grant or Cooperative Agreement Number, 2 B01 OT 009019, funded by the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention or the Department of Health and Human Services.