



Special Emphasis Report: Injury Among Middle and High School Teens, 2019



Injury is a Leading Cause of Death in Children

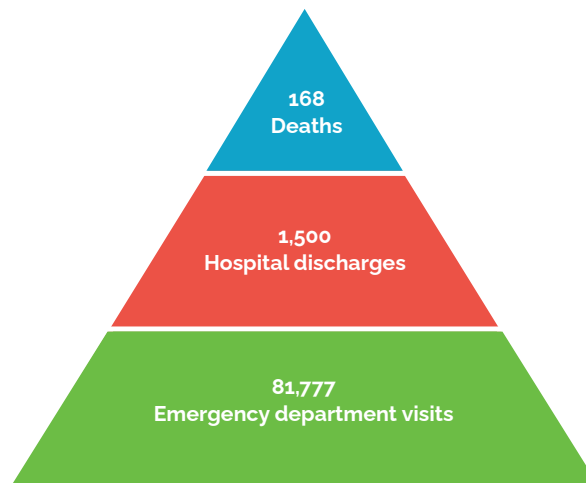


By the Numbers

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 2019, there were 168 injury-related deaths of Indiana children ages 12-18.

In addition to injury-related mortality, there were 1,500 hospitalizations and 81,777 emergency department (ED) visits. Children who received treatment in a physician's office or at home were not included in this frequency report.

Figure 1: Annual Injuries among Children Ages 12-18 Years, Indiana, 2019

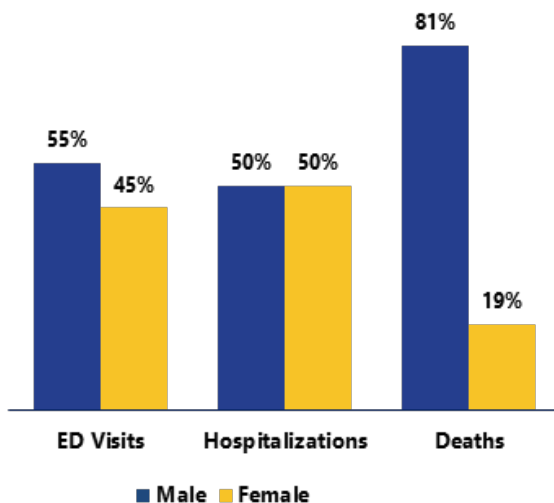


For every child who died, nine children were hospitalized and 487 were treated in emergency departments.

Childhood Injuries by Sex

Indiana males ages 12-18 had higher numbers of injury-related ED visits and deaths than females, accounting for a larger overall number of injuries. The largest difference between males and females was observed in injury-related deaths. Males were more than four times as likely to die from injury than females.

Figure 2: Percent of Injury Deaths, Hospitalizations, and Emergency Department Visits among Children Ages 12-18 Years, by Sex, Indiana, 2019



**ED visits, hospitalizations, and mortality data are all based on ICD-10-CM diagnosis codes or ICD-10 underlying cause codes of unintentional and intentional injury for the calendar year 2019. This document was produced in conjunction with CDC's Core Violence and Injury Prevention Program under Cooperative Agreement 11-1101.*

Injury Deaths in Children Ages 12-14

There were 33 deaths in children ages 12-14 years old that resulted from injury. Sixteen were suicides, three were homicides, one was unintentional, and none were undetermined.

The leading cause (54%) of injury death was suicide. The next two resulted from transport-related injuries at 17% and drowning at 13%.

Suicide death was more prevalent among males and contributed to 68% of total suicides for this age category.

Figure 3: Injury Deaths among Children Ages 12-14 Years, Indiana, 2019

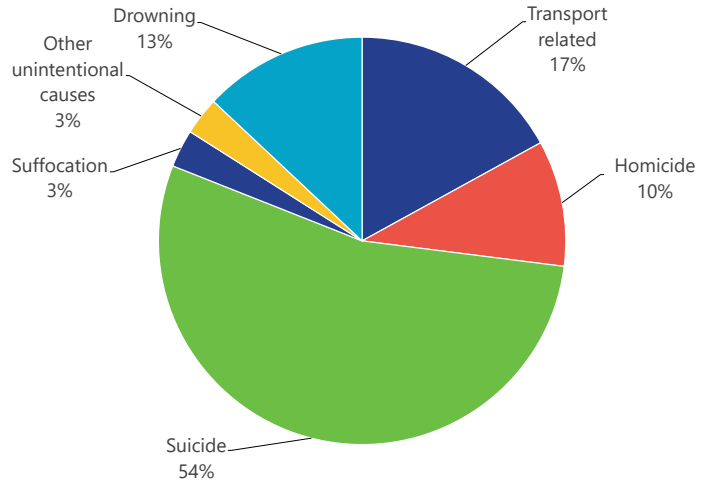
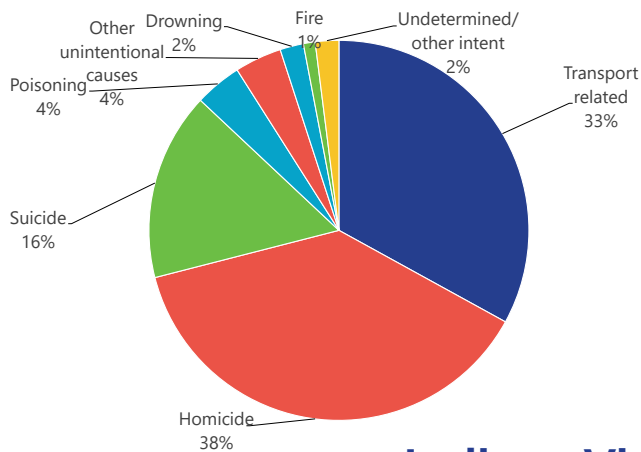


Figure 4: Injury Deaths in Teens Ages 15-18 Years, Indiana, 2019



Injury Deaths in Young Children

There were 54 deaths in children ages 1-5 that resulted from injury. Forty-five were unintentional, six were homicides, and three were undetermined or unspecified.

The leading cause (28%) of injury-related death was due to drownings. The second leading cause (20%) of injury deaths were motor vehicle occupant.

Using car seats have been shown to reduce death in motor vehicle-related accidents.

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

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 Department of Health 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: The 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.

Overdose Data to Action: The IDOH has received federal funding from the Centers for Disease Control and Prevention (CDC) to help prevent overdose deaths in the state of Indiana, with a special focus on opioids and stimulants. Funding supports enhancements to the state's prescription drug monitoring program, prescription opioid messaging campaigns, prevention efforts at the state and community levels to address new and emerging problems related to drug overdoses, efforts to educate law enforcement on harm reduction practices, and more. Through this funding, the IDOH is further expanding the collection of overdose-related data to provide additional information to local- and state-level stakeholders and expand the use of data for public health surveillance.

Students, Teachers, and Officers Preventing (STOP) School Violence: The IDOH is requesting to receive federal funding from the Bureau of Justice Assistance (BJA) to train school personnel and educate students on preventing student violence against others and themselves to include anti-bullying training. This also includes specialized training for school officials to respond to mental health crises. By partnering with the Indiana Department of Education and the Division of Mental Health and Addiction, we can expand Youth Mental Health First Aid to three school systems in Indiana. This class focuses on identifying, understanding, and responding to the signs of addiction and mental health. The result of these trainings is to implement a procedure to aid schools in recognizing the needs of their student body when it comes to mental health resources.

Surveillance: The IDOH 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 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 IDOH. IC 16-49 also requires that a coordinator position be created at IDOH 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, 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 (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">• Focuses on local community and statewide action• Represents at least 90 of Indiana's 92 counties• Contributes data to National CDR Case Reporting System on a team-by-team basis	<ul style="list-style-type: none">• Use discrete reporting system to compile data for analysis• Examine extensive background and circumstance information on victims, suspects, relationships, weapons and life events related to the incident• Share stakeholders, data providers and data users• Work to prevent future deaths by examining associated risk factors and warning signs	<ul style="list-style-type: none">• Focuses on state-based data collection and dissemination• Captures death certificate data from 100% of Indiana counties• Contributes data to NVDRS in conjunction with 50 other states.

Indiana Child Fatality Review Program

Kids and teens become more vulnerable to motor vehicle injuries as they age. In 2019, 2,105 teens in the United States ages 16-19 were killed due to injuries sustained in motor vehicle crashes.¹ 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 higher than drivers ages 20 and older, and the motor vehicle death rate for male drivers ages 16-19 was two times that of their female counterparts.²

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 puts 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 and should be reported and that 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 and 24.¹ Boys are more likely to die from suicide compared to girls, although girls are more likely to report attempting suicide than boys.³

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

Resources

Indiana Department of Health

2 N. Meridian St.
Indianapolis, IN 46204
www.Health.IN.gov

Indiana Child Fatality Review and FIMR Programs

(317) 233-1240
GMartin1@isdh.IN.gov
www.in.gov/health/cfr/

Maternal and Child Health Division

(317) 233-7940
www.in.gov/health/mch/

Trauma and Injury Prevention Division

Indianatrauma@isdh.IN.gov
www.in.gov/health/trauma-system
Twitter: @INDTrauma

Indiana Department of Child Services

402 W. Washington St.
Indianapolis, IN 46204
(317) 234-KIDS
Communications@dcs.IN.gov
www.in.gov/dcs/2370.htm

Indiana Bureau of Motor Vehicles Guide for Parents and Teens

www.in.gov/bmv/files/Driver_Guide_for_Parents_and_Teens.pdf

Indiana Child Abuse/Neglect Hotline

1-800-800-5556

Indiana Poison Control

Phone: 1-800-222-1222
indianapoison.org/

American Academy of Pediatrics

www.aap.org/

Automotive Safety Program

www.preventinjury.org/

Children's Safety Network

www.childrenssafetynetwork.org/

Indiana Attorney General Prescription Abuse Task Force

www.in.gov/bitterpill

Automotive Safety Program

www.preventinjury.org

PACER's National Bullying Prevention Center for Teens

www.PACERTeensAgainstBullying.org

National Suicide Prevention Lifeline

1-800-273-TALK(8255)

Teen Suicide Hotline

1-800-SUICIDE(784-2433)

Indiana Criminal Justice Institute: Rule the Road

www.in.gov/cji/2382.htm

Safe Child Program

www.cdc.gov/safechild

National Domestic Violence Hotline

1-800-799-SAFE(7233)

Safe Kids Indiana/Safe Kids Worldwide

www.in.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 14 October 2020.
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 8 October 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/entertainmententips/SuicideYouth.html>. Accessed 8 October 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 2019. 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 Department of Health. Document prepared by IDOH Division of Trauma and Injury Prevention.