

## INDIANA STATEWIDE CHILD FATALITY REVIEW COMMITTEE 2015 REPORT ON CHILD DEATHS

#### **SUBMITTED TO:**

The Honorable Eric J. Holcomb, Governor, State of Indiana
Indiana State Senate
Indiana House of Representatives
Department of Child Services
Commission on Improving the Status of Children in Indiana
Dr. Jerome M. Adams, Commissioner, Indiana State Department of Health
Indiana Local Child Fatality Review Teams

#### Vision

Understanding the circumstances causing a child's death will help prevent other deaths, poor health outcomes, and injury or disability in other children.

#### **Mission Statement**

The Statewide Child Fatality Review Committee will work to support the Local Child Fatality Review Teams by providing guidance, expertise, and consultation in analyzing and understanding the causes, trends, and system responses to child fatalities, and to make recommendations in law, policy and practice to prevent child deaths in Indiana.

#### **Function**

Advise the governor, legislature, state agencies and the public on changes in law, policy and practice to prevent deaths to children and improve the overall health and safety of Indiana's children.

Recommend improvements in protocols and procedures for/to the Indiana Child Fatality Review Program.

Recommend systems improvements in policy and practice for state and local agencies in order to improve their effectiveness in identifying, investigating, responding to and preventing child fatalities.

Provide support and expert consultation to the Local Child Fatality Review Teams.

Review Indiana's child mortality data and Local Child Fatality Review Team reports to identify causes, risk factors and trends in child fatalities.

Provide an annual report on child fatalities, to include mortality data, Statewide Child Fatality Review Committee recommendations and an overview of the Indiana Child Fatality Review Program.

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#### **INTRODUCTION**

Death rates for infants, children and teens are widely recognized as valuable measures of the overall well-being of a state's children. Identifying the key risk factors associated with child deaths provides the basis for responding in ways that help protect our children and keep them safe. More than 25 years of research has proven that prevention or significant reductions of child abuse and neglect fatalities, as well as other serious and fatal injuries, cannot be achieved without more complete information about how and why children are dying. Without such information, many child deaths go under-reported and are often misclassified. Scholars, professionals and other officials agree that a system of comprehensive child fatality review is the best way to better understand why our children die and how we can prevent deaths and improve the health and safety of our children.

The 2015 Statewide Child Fatality Review Committee Annual Report presents information on the changes to Indiana law over the last several years, the activities of the Statewide Child Fatality Review Committee, and the reviews of child deaths that occurred during calendar year 2014.

# EXECUTIVE SUMMARY Indiana Statewide Child Fatality Review Committee Annual Report on Child Deaths for Calendar Year 2015 December 31, 2016

Report Section Page Reference

Introduction Pg. 6

Every child's death is a tragic loss for the family and community. Sadly, a total of 243 Indiana children died from injury in 2014. Through careful review of these deaths, we are better prepared to prevent future injury and death and keep our children safe. Child Fatality Review is a public health strategy to understand a child's death through multidisciplinary review. Data from local review teams are collected and analyzed to best understand risks to children. The lessons learned from the reviews inform local and statewide activities to improve policies and practice and prevent child deaths. Child Fatality Review is practiced in every U.S. state and in other countries.

Background Pg. 10

Child Fatality Review was established by legislation in Indiana in 2006, in response to the need to better understand why children die. Participation in Child Fatality Review was voluntary until 2012, when changes to Indiana law mandated regional teams. In 2013, changes in statute required that local Child Fatality Review teams in each Indiana county review the deaths of children younger than 18. The multi-disciplinary teams are required by statute to review all child deaths that are sudden, unexpected or unexplained, the result of homicide, suicide, accident or undetermined. Indiana statute also placed Child Fatality Review under the auspices of the Indiana State Department of Health (ISDH), and required a State Child Fatality Review coordinator be hired to provide support and technical assistance for the Indiana Statewide Child Fatality Review Committee and the local teams.

This report outlines the work Child Fatality Review teams are doing to make a difference in communities across Indiana. Prevention initiatives and collaborations are presented, as well as improvements for educational and capacity-building opportunities for local teams. Findings and data are highlighted throughout the report and exemplify that knowledge of the facts about the death of a child is not sufficient to prevent future deaths. The knowledge must be put into action. The Child Fatality Review process has raised awareness in Indiana communities and has led to a clearer understanding of agency and systemic responsibilities and possibilities for collaboration on efforts addressing child health and safety.

#### The Public Health Child Fatality Review Process

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Child Fatality Review teams consist of individuals representing agencies responsible for responding to child deaths or for protecting children's health and/or safety. Team members include representatives from law enforcement, child protective services, local prosecuting attorneys, coroner, local health department, EMS, fire department, school, and a pathologist. Ad hoc members from other agencies involved in protecting children's health and safety are also asked to

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serve on teams as needed. Most reviews are conducted at the local level, and all reviews conclude with the question: Was this death preventable? If so, how? The information collected during the review process helps augment vital records data and provides valuable insight into the causes and circumstances surrounding child fatalities in Indiana. Local teams monitor child death trends in the community, share the lessons learned, and spearhead or participate in local prevention activities. This information can then be used to drive the development of quality preventive measures.

Local review teams may serve county or regional jurisdictions, and the agency coordinating the local teams varies. These teams are asked to submit case review reports to the ISDH State Child Fatality Review Program coordinator. The Statewide Child Fatality Review Committee reviews the aggregate or individual findings of local teams and makes recommendations for prevention and improvements to state policies and practices.

#### **Current Status of Local Teams**

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By the end of 2015, 89 of Indiana's 92 counties had either implemented, or were in the process of implementing, their local review team. The 2015 Indiana State Child Fatality Review Annual Report highlights the activities of the Indiana State Child Fatality Review Program and local teams throughout 2015.

#### **Indiana Child Fatality Review Program Activities**

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In 2015, Indiana Statewide Child Fatality Review Committee members dedicated their efforts to providing training opportunities to the local teams and their communities. Sudden Unexplained Infant Death Investigation (SUIDI) trainings were conducted across the state, and a large statewide Child Fatality Review Conference gave new and existing teams an opportunity to learn about child fatality review and injury prevention. The statewide committee also hosted a training class for communities, conducting both child fatality review and fetal and infant mortality review (FIMR), with national experts teaching best practice for collaboration.

The statewide committee and the state coordinator also worked to improve the capacity of the Indiana Child Fatality Review Program through legislative updates and improved access to vital records data. Prevention efforts focused on safe infant sleep and water safety education.

#### **Indiana Child Fatality Review Program Recommendations**

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Based on Local Child Fatality Review team input and aggregate child death data, the Indiana State Child Fatality Review Program issues the following recommendations:

- Indiana Child Fatality Review Teams
  - o Establish collaborative relationships with local health departments.
  - O Ensure that representatives from local schools, fire departments and emergency response agencies are included on the child fatality review team.
  - O During the child fatality review, appoint a representative to enter data and discussion points into the National Child Death Review Case Reporting System.

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- o Research and connect with local injury prevention and child advocacy agents in your community.
- Sudden Unexplained Infant Death
  - O Increase knowledge in caregivers about the preventable risk factors.
  - o Increase knowledge in professionals about appropriate prevention techniques for these deaths.
  - o Create a standardized reporting process and nomenclature.
- Suicide
  - o Improve collaboration between school systems, juvenile justice programs and mental health clinicians to ensure a continuum of care.
- Motor Vehicle Collisions
  - o Improve community awareness about child passenger safety.
  - o Improve community awareness about the dangers of impaired or distracted driving.
- Prematurity and Infant Deaths
  - o Improve knowledge in young men and young women, health care providers and communities about the importance of preconception and prenatal health.
  - o Increase access to appropriate health care for women of childbearing age.
- Indiana State Child Fatality Review Program
  - o Increase capacity of the program by continuing to engage new local teams.
  - o Improve knowledge of best practices by providing continuing education opportunities.
  - O Improve timeliness and quality for data collection in the National Child Death Review Case Reporting System.

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#### **BACKGROUND**

In 2006, Indiana legislation initiated a child death review system, designed to produce an accurate picture of each child death, identify the risk factors involved, and to inform injury prevention efforts. While the program has evolved and adapted to meet new challenges, the objectives have remained the same. The program identifies the risk factors involved in child deaths and responds with multi-level prevention strategies.

Through continued evolution, including a 2012 legislative update that attempted to standardize and coordinate the process in response to state need, the Indiana Child Fatality Review Program grows increasingly more effective, relevant and sustainable. Changes to IC 31-33-24 and IC 31-33-25 mandated that the Indiana Department of Child Services (DCS) establish a multidisciplinary Local Child Fatality Review team in each of the DCS geographical regions. This legislation required that every Indiana county maintain a multidisciplinary panel, at a minimum comprised of a coroner, law enforcement, a pathologist, fire or emergency medical responders, a school representative, a physician, a prosecutor, public health representatives and DCS, to examine the non-natural deaths of all children under the age of 18. This legislation also allowed the teams to include optional members at the discretion of the panel. The teams did not act as an investigative body. Their purpose was to enhance the knowledge base of the mandated investigators, evaluate and address potential service needs, identify and implement prevention interventions for the family and community, and enhance multidisciplinary communications and coordination.

Beginning in 2013, Indiana legislation moved the Statewide Child Fatality Review Committee and the Local Child Fatality Review Teams from the Department of Child Services in Title 31 to Title 16, under the auspices of the Indiana State Department of Health (ISDH). This new law, IC 16-49, required multidisciplinary Child Fatality Review teams to be implemented at the local level, with coordination and support for the local teams and statewide committee to be provided by the ISDH. It also required that the ISDH create a coordinator position to help support the local teams and statewide committee.

<u>IC 16-49</u> made the prosecuting attorney in each county responsible for establishing a Child Fatality Review Committee whose membership includes the prosecuting attorney or their representative, the county coroner or deputy coroner, and representatives from the local health department, DCS, and law enforcement. The Child Fatality Review Committee then selected members to serve on the Local Child Fatality Review Team and determined whether to establish a county Child Fatality Review team or enter into an agreement with another county or counties to form a regional Child Fatality Review team. The prosecuting attorney is responsible for filing a report with the state coordinator outlining the type of team selected, the membership of the local team and any assistance required by the coordinator.

While the local teams' criteria for selecting which cases to review remained unchanged with the move from Title 31 to Title 16, <u>IC 16-49-3-4</u> requires local health officers in each county to provide all death certificates for children under 18 years of age to their local team so the team can determine which cases meet the criteria for review.

The local teams gather as much information as possible to determine the most accurate manner and cause of a child's death, with a focus on potential prevention for the future. Team members have the opportunity to share information, discuss and prioritize child health and risk factors and promote local education and community-based prevention

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programs. The goal of the program is to have local teams in every county so that local initiatives for injury prevention can be implemented. As of December 2015, 89 counties had an active Local Child Fatality Review team or were in the process of implementation. The statewide committee was tasked with reviewing case information, submitted by the local teams, to identify statewide injury trends and develop strategies to help inform injury prevention efforts.

Of the average 700 child deaths that occur annually in Indiana, approximately 30 percent merit review by the committee. To come under review, the cause of death must be unclear, unexplained, or of a suspicious circumstance, to include all accident, homicide, suicide or undetermined deaths plus any death assessed by DCS. This also includes Sudden Infant Death Syndrome (SIDS) cases, even if the death is classified as natural. The team may review any case, including a natural death, if team members are concerned that the death was unexpected or unexplained by the cause and manner of death.

Since 2012, the Indiana Child Fatality Review Program has used the web-based National Center for the Review and Prevention of Child Deaths (NCRPCD) – Child Death Case Reporting System (CDR). The system allows for standardized data collection and reporting by local and state users. Utilizing consistent data collection and reporting practices will further enhance knowledge and identification of trends and patterns of risk, and lead to improved child death investigations. This practice will also help identify gaps in community-based services and improve the implementation of prevention practices on the local, state and national level. The success of this process of data collection and reporting is due in large part to the support of the county-based team members, who volunteer for this difficult work. Their hard work is a true expression of their dedication and commitment to helping improve the health and safety of Indiana's children.

#### THE PUBLIC HEALTH CHILD FATALITY REVIEW PROCESS

According to the National Center for the Review and Prevention of Child Deaths, there are six steps to a quality review of a child's death:

- Share, question, and clarify all case information.
- Discuss the investigation that occurred.
- Discuss the delivery of services (to family, friends, schoolmates, community).
- Identify risk factors (preventable factors or contributing factors).
- Recommend systems improvements (based on any identified gaps in policy or procedure).
- Identify and take action to implement prevention recommendations.

The goal of the Indiana Child Fatality Review Program is to ultimately decrease child injury and death through prevention efforts. This is done by monitoring data, identifying trends, injuries, and deaths that may be preventable in Indiana and reviewing and learning from the reported deaths. In collaboration with key partners, this learning is applied to developing recommendations and community interventions that may help prevent injuries and future child deaths.

#### Indiana death certificates identify deaths by manner and cause

After a person dies, the county coroner or other appointed reporting authority will determine both a cause and manner of death to be recorded on the decedent's death certificate. This is important to note since, as a result of the Child Fatality Review team review of the death, the team's determination of cause and manner of death may differ from those recorded on the death certificate.

#### Manner of death

The manner of death describes how the death occurred and falls into one of five categories:

- 1) Homicide,
- 2) Suicide,
- 3) Accidental,
- 4) Natural causes, or
- 5) Undetermined.

**Natural** deaths include medically related deaths from illnesses such as cancer, prematurity or congenital defects.

Accidental deaths include types of unintentional deaths such as fire, falls, auto/pedestrian fatalities and drowning.

**Homicides** are deaths of one human being at the hands of another. The term homicide is used regardless of the perpetrator's intent and describes events ranging in scope from accidents without clear intention to the opposite extreme, an act of violence.

**Suicide** is the deliberate taking of one's own life. There may be a wide variety of circumstances surrounding suicide deaths, including contributing factors such as behavioral health issues, substance abuse, bullying or terminal illness.

**Undetermined** deaths are those situations where the pathologist and/or coroner are unable to pinpoint a final manner of death. These types of cases typically involve information from the investigation that is either incomplete or conflicting, which impedes the pathologist's/coroner's ability to make a final determination. It may also include cases whereby, after a complete investigation, the intent surrounding the death is unclear and it cannot be determined if the death was due to an accident or intentional circumstance. For example, it may not be clear when a firearm death is due to an accident, suicide or homicide.

#### Cause of death

The cause of death refers to what specifically killed the person (drowning, overdose, car crash, suffocation, etc.). For example, the cause of death may be determined to be from drowning, but the manner of death then describes the intent surrounding the death (homicide, accident, or undetermined).

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While manner and cause of death are separate, the combination of the two defines how the death occurred. For Child Fatality Review, knowing if the injury was unintentional, intentional or undetermined will allow for a better understanding of how the child died. Most Child Fatality Review findings coincide with the death certificate manner of death, but there may be instances where they do not. This can occur when other factors gleaned from the review process were not readily available at the time the death certificate was completed.

#### **Preventability**

Injury prevention is a critical component to ensuring public health and safety. The World Health Organization (WHO) Public Health Approach to Injury Prevention consists of four steps:

- 1) Define the problem through the systematic collection of information about the magnitude, scope, characteristics and consequences of injury;
- 2) Establish why these injuries occur, using research to determine the causes and correlates of injury, the factors that increase or decrease the risk for injury, and the factors that could be modified through interventions;
- 3) Find out what works to prevent injury by designing, implementing and evaluating interventions;
- 4) Implement effective and promising interventions in a wide range of settings. The effects of these interventions on risk factors and the target outcome should be monitored, and their impact and cost-effectiveness should be evaluated.

Child Fatality Review is a public health injury prevention process that examines the preventability of the circumstances and risk factors involved in a child's death. The overall goal is to improve the health and safety of all children by identifying and understanding the factors that place a child at risk for illness or injury.

Most review meetings are held as *retrospective reviews*. These usually take place after the investigation is mostly completed and case information is readily available. Some teams may have *immediate response reviews* that typically occur shortly after a death, usually one that is unexpected or unexplained. Using this method, the team is able to discuss case information immediately, thereby affecting the processes and procedures used during the active investigation of a child's death. This type of review may also assist the DCS in its work to protect other children involved. If a team chooses an immediate response review but has standing meeting dates for retrospective reviews as well, then it is likely that the case will go through both types of review. In this way, the Child Fatality Review process acts as a tool for coordinating death investigations and delivery of services, as well as a source of information for identification of risk factors and prevention of other deaths in the future.

Child Fatality Review teams may define a death as preventable when some reasonable action could have prevented the death. Team members may determine that the risk factors or circumstances that caused or contributed to a death were preventable, but they may not know, at the time of review, how it could have been prevented. Teams will often revisit the prevention discussion when additional information provides further insight.

Even if a particular case is deemed "probably not preventable," the Child Fatality Review process is valuable in improving interagency collaboration, investigation practices, and identifying gaps in community services or access to resources. For this reason, many local teams make recommendations and initiate changes even when a particular death is not deemed preventable.

#### **CURRENT STATUS OF LOCAL TEAMS**

Since IC 16-49 became effective in July 2013, the statewide committee has continued to work to support the new local teams during the transition and provide guidance and expertise where needed. The maps below (Figures 1-3) show the progression of the development of the local teams through December 2015. Official teams are those teams that have submitted Fatality Committee Reports to the state coordinator, non-official teams are those teams that have been implemented but have yet to submit their Fatality Committee Report to the state coordinator, and unverified teams are those teams that have made contact with the coordinator and are in the process of team implementation.

Figure 1: Status of Child Fatality Review Teams in February 2015



Figure 2: Status of Child Fatality Review Teams in



July 2015

#### **ESTABLISHING A LOCAL CHILD FATALITY REVIEW NETWORK IN INDIANA**

Increasing Indiana State Child Fatality Review Staff

In 2015, the ISDH and Division of Child Fatality Review created a position for and added a full-time contractor to assist the state coordinator with Child Fatality Review and Injury Prevention program activities. This position provides administrative support and helps develop programs and training opportunities for local teams and community members. During the fall of 2015, the state coordinator also agreed to mentor an epidemiology intern through Indiana University's Richard M. Fairbanks School of Public Health. Along with the movement of the Indiana Safe Sleep Program to the Division of Child Fatality Review, the capacity for program improvement and data collection was greatly improved.

#### Local Teams

The state coordinator and statewide committee conducted several conference calls and attended the meetings of many local teams in an effort to guide them with best-practice suggestions.

Teams assisted with site visits during 2015 include:

Boone County	Fountain/Warren Counties	Kosciusko County	St. Joseph County					
Brown County	Greene County	Lake County	Tippecanoe County					
Clay County	Hamilton County	Marion County	Warrick County					
Crawford County	Howard County	Marshall County	Whitley County					
Daviess County	Jasper County	Morgan County	Dubois County					
Scott County	Vanderburgh Regional Team							
DCS Region 7 – Grant, Blackford, Jay, Randolph and Delaware counties								
DCS Region 8 – Clay, Vigo, Sullivan, Parke and Vermillion counties								
DCS Region 12 – Henry, Wayne, Rush, Fayette, Union and Franklin counties								
DCS Region 15 Decatur, Ripley, Dearborn, Ohio, Switzerland and Jefferson counties								

#### FINDINGS: PEDIATRIC MORTALITY DATA

The statewide committee reviews pediatric mortality data, as provided by the ISDH and DCS, to determine how Indiana children are dying. Understanding the trends, especially at a community level, is necessary to suggest proper prevention activities. While the statewide committee did not review all deaths discussed in this section, the knowledge gained from

discussing the data helped formulate recommendations. Deaths occurring in 2014 represent the most recent data for reporting.

#### Leading Causes of Death

Unintentional injuries are the leading cause of death for Indiana's children. Figures 3-6 outline the leading causes of death and injury for children in Indiana. The highlighted cells are injury-related causes of death, and the cells without color are causes of death related to risk factors associated with health.

Figure 3 Leading Causes of Death, Indiana 2014, All Races, Both Sexes

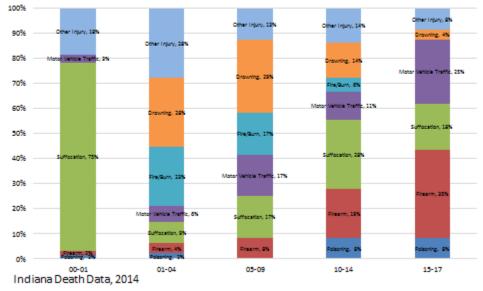
		Age Groups									
Rank	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	All Ages
1	Congenital Anomalies 4,746	Unintentio nal Injury 1,216	Unintentio nal Injury 730	Unintentio nal Injury 750	Unintentio nal Injury 11,836	Unintentio nal Injury 17,357	Unintentio nal Injury 16,048	Malignant Neoplasm s 44,834	Malignant Neoplasm s 115,282	Heart Disease 489,722	Heart Disease 614,348
2	Short Gestation 4,173	Congenita I Anomalie s 399	Malignant Neoplasm s 436	Suicide 425	Suicide 5,079	Suicide 6,569	Malignant Neoplasm s 11,267	Heart Disease 34,791	Heart Disease 74,473	Malignant Neoplasm s 413,885	Malignant Neoplasm s 591,699
3	Maternal Pregnancy Comp. 1,574	Homicide 364	Congenita I Anomalie s 192	Malignant Neoplasm s 416	Homicide 4,144	Homicide 4,159	Heart Disease 10,368	Unintentio nal Injury 20,610	Unintentio nal Injury 18,030	Chronic Low. Respirato ry Disease 124,693	Chronic Low. Respirator y Disease 147,101

4	SIDS 1,545	Malignant Neoplasm s 321	Homicide 123	Congenita I Anomalie s 156	Malignant Neoplasm s 1,569	Malignant Neoplasm s 3,624	Suicide 6,706	Suicide 8,767	Chronic Low. Respirator y Disease 16,492	Cerebro- vascular 113,308	Unintentio nal Injury 136,053
5	Unintention al Injury 1,161	Heart Disease 149	Heart Disease 69	Homicide 156	Heart Disease 953	Heart Disease 3,341	Homicide 2,588	Liver Disease 8,627	Diabetes Mellitus 13,342	Alzheimer 's Disease 92,604	Cerebro- vascular 133,103

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Figure 4.. Leading Causes of Injury Death by Pediatric Age Group, Indiana 2014

## Top Causes of Injury Deaths by Pediatric Age Group, Indiana, 2014



#### **Injury Deaths**

In 2014, 243 Indiana children age 17 and under died from injury. Of those, 157 deaths were unintentional and 75 were intentional in nature. There were 11 undetermined child deaths.

Most of these deaths are preventable. For every childhood injury death, many more children are hospitalized and hundreds are seen in emergency departments. Through the Child Fatality Review process, local Child Fatality Review teams can help identify the risk factors and characteristics involved in injury deaths so that effective efforts can be implemented and future injury, disability, and death among Indiana's children can be prevented.

Figure 5: Injuries in Childhood



Data on injury-related deaths for children up to age 17 were identified from death certificates maintained by the ISDH Vital Records Division and analyzed by ISDH Trauma and Injury Prevention staff. The state coordinator assisted the Trauma and Injury Prevention staff in the development of documents to share this information with the public, injury prevention specialists, and stakeholders. The resulting Special Emphasis Reports utilize conventional classification of injury deaths:

- Unintentional Injury An injury that was not deliberate, and occurred without intent to harm or cause death. This type of injury is described as accidental.
  - O Transportation accident Fatal injury in which the victim was a passenger in or injured by a motorized vehicle or as a pedal cyclist on a roadway
  - Non-transportation accident Fatal injury caused by external factors such as falls, fires, or drowning.
- Intentional Injury Injury resulting from intentional use of force or purposeful action against oneself or others.
  - O Homicide Fatality resulting from injuries sustained through an act of criminal negligence or violence committed by another person with the intention to cause fear, harm or death.
  - o Suicide Fatality from an intentional, self-inflicted act with the intent to cause harm or death to self

• Undetermined – The classification of a death when all available information is insufficient to point to any one manner of death. In some cases, both cause and manner of death may remain undetermined.

#### **COMMITTEE-REVIEWED FATALITY DATA**

Although the number and causes of child deaths can be determined from death certificates and vital records data, we must look closer at the "who, what, where, when, why, and how" details involved in these deaths if we hope to understand how to prevent them in the future. The statewide committee conducted individual child fatality case reviews, as well as an examination of pediatric fatality data gleaned from the ISDH Vital Records Division. Topics of discussion centered on both child death trends and data reliability.

#### Case Review Data

The statewide committee was unable to use case review data from the National Child Death Review Case Reporting System (CDR) to inform prevention or identify trends in 2015 due to incomplete data fields and missing cases. Efforts to increase consistent use of the CDR system will be a priority moving forward.

The individual case report should be completed on all deaths reviewed by a team. It should include information on the child, caregivers, supervisors, circumstances of the event leading to the death and team findings related to services and prevention. When completed following case reviews, tabulations of and analysis of the data from the case reports will provide:

- Comprehensive information on the child, family and supervisor.
- Risk factors in the child deaths reviewed.
- Descriptions of the investigation activities conducted as a result of this death.
- Descriptions of the services provided or needed as a result of the deaths reviewed, and the review teams' recommendations for new services or referrals.
- The team's recommendations and actions taken to prevent other deaths.
- Factors affecting the quality of the case review meetings.

While the individual case review of a child's death can often catalyze local and state action to prevent other deaths, it is important to systematically collect data and report on the findings from reviews over time. When data from a series or cluster of case reviews are analyzed collectively, significant risk factors or patterns in child injury and safety can be identified. The accumulation of findings from case reviews and the subsequent reporting on these findings can help:

- Local child fatality review teams gain support for local interventions.
- State child fatality review teams examine local findings to identify trends, major risk factors and to develop recommendations and action plans for state policy and practice improvements.
- State teams match review findings with vital records and other sources of mortality data to identify gaps in the reporting of deaths.
- State and local teams use the findings as a quality assurance tool for their review processes.

- Local teams and their states use the reports to demonstrate the effectiveness of their reviews and advocate for funding and support for their child fatality review program.
- National groups use state and local child fatality review data for national policy and practice changes.

While some local teams enter data from their review meetings on a regular basis, this has not become a standard process for all teams. For this reason, not enough data was entered into the CDR for the statewide committee to identify trends or inform prevention activities. The statewide committee and Indiana Child Fatality Review staff will work over the coming years to improve the quality and consistency of the data entered into the CDR at the local level. Improving the usefulness of the data at the local and state levels will help identify prevention strategies and monitor the effectiveness of prevention measures that have been implemented.

#### **ISSUES AND REVIEW REQUESTS FROM LOCAL TEAMS**

Local Child Fatality Review teams are encouraged to escalate concerns about individual cases, investigations, or policies for the statewide committee to address. A number of teams reached out for assistance with multiple issues. They included:

Standardizing death certificate data in SUID cases and increasing caregiver knowledge about safe sleep practices through hospital and prenatal care provider education

According to the Centers for Disease Control and Prevention (CDC), sudden unexpected infant deaths (SUID) are those fatalities occurring abruptly and unexpectedly in an infant younger than one year of age. Cause of death is not immediately detectable prior to investigation. After conducting a complete autopsy, an examination of the death scene, and a review of the clinical history, a determination of a SUID may occur. Most SUIDs are reported as one of three types:

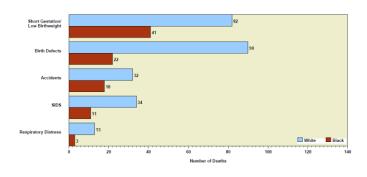
1) Sudden Infant Death Syndrome (SIDS)

SIDS is defined as the sudden death of an infant less than 1 year of age that cannot be explained after a thorough investigation is conducted, including a complete autopsy, examination of the death scene, and a review of the clinical history. SIDS is the leading cause of death in infants 1 to 12 months old.

Figure 6: Leading Causes of Death, Under Age 1, By Race 2014

Indiana Mortality Report, 2014 Figure 6

#### Leading Causes of Death Under Age 1 by Race: Indiana Residents, 2014



This figure was run on January 14, 2016.

#### 2) Unknown Cause

The sudden death of an infant less than 1 year old that remains undetermined because part of the investigation was not completed.

#### 3) Accidental Suffocation and Strangulation in Bed

The sudden death of an infant less than 1 year of age that can happen because of:

- Suffocation by soft bedding for example, when a pillow or waterbed covers an infant's nose and mouth.
- Overlay when another person rolls on top of or against the infant while sleeping.
- Wedging or entrapment when an infant is wedged between two objects, such as a mattress and wall, bed frame, or furniture.
- Strangulation for example, when infants become tangled in blankets, bedding or other objects that could be wrapped around the neck.

Even after a thorough investigation, it can be hard to distinguish SIDS from other sleep-related infant deaths, such as overlay or suffocation by soft bedding. This is because these deaths are often unwitnessed and there are no tests to tell SIDS from suffocation. To complicate matters, people who investigate SUIDs may report cause of death in different ways and may not include enough information about the circumstances of the event from the death scene.

Many local teams voiced concern over the lack of standardized identification and classification protocol for cause and manner of death. For example, many positional asphyxia cases were classified as natural deaths on death certificates.

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The Indiana Coroners' Training Board was invited to participate in an IPQIC SUID subcommittee where one of the primary recommendations was determined to be the need for consistent identification and coding. This will involve the training of coroners in all 92 counties to adopt a consistent classification. In conjunction with the Indiana Coroners' Training Board, as well as local health officers in each county, the statewide committee will work to facilitate training opportunities in 2016.

Establishing a protocol for Child Fatality Review when the injury and death occur in different counties

Child Fatality Review teams are often faced with complicated case reviews. Child injury and death often involve many factors and multiple agencies in multiple jurisdictions. Prompt notification of the death, sharing of case information, and collaboration in the investigation are often challenging. Several child fatality reviews in 2014 and 2015 involved more than one jurisdiction, sometimes even across state lines. These collaborations are still in their infancy, and local team members could not conduct comprehensive reviews. With the legislative updates specifying the roles of both the county of incident and county of death, the state coordinator has begun working with the local teams to make certain the appropriate reviews are being conducted.

Collaborating Child Fatality Review and Fetal and Infant Mortality Review (FIMR) efforts

As the need to directly address the infant mortality rate in Indiana has been emphasized, many regional FIMR teams are being formed and existing FIMR teams are increasing their activity. While the review processes are not identical, they are similar enough to warrant collaborative and crossover efforts. With grants awarded in early 2015, capacity for FIMR team formation and prevention activities increased. This means that existing local teams have begun to also act as FIMR teams and new FIMR teams are being formed statewide. The state coordinator attended many of these meetings in 2015 to provide technical assistance and advise leadership in best practices. Efforts continue to guide teams toward action in their communities.

#### **INITIATIVES ADDRESSING OUR MISSION**

Prevention is the overarching goal of the Indiana Child Fatality Review program. In order to reduce risk factors, promote the protective factors, and improve outcomes for Indiana's children, everyone needs to participate. Many people might not consider themselves prevention agents, but they contribute a great deal to prevention strategies and programming. Some examples of these contributions include physicians who speak with young female patients about preconception health, law enforcement officers who train as car seat safety technicians, social workers who have insight into the signs and symptoms of abuse and neglect, and parents who take the time to speak with their children about their lives and daily stresses. The combined contributions of these individuals can positively affect the community and help prevent future fatalities.

The Indiana Child Fatality Review program helps further these efforts by learning about the needs of local teams, offering training in prevention activities and organizing the individuals, agencies and communities working to keep Indiana children safe.

#### Knowledge Gained

During 2015, the state coordinator attended several national child fatality and injury prevention meetings to gather information and develop a strategic plan to help build a robust child fatality/injury prevention network. The statewide committee also hosted presenters at its monthly meetings to directly address the concerns and challenges of the child fatality review process in Indiana and increase the team's capacity to address them. They included:

Luke Britt - Indiana Public Access Counselor, June 2015

Mr. Britt attended the June 2015 statewide committee meeting to guide discussion surrounding the use of social media for injury prevention efforts. Many communities and local teams expressed interest in using social media outlets (Twitter, Facebook, etc.) to inform their constituents about topics such as suicide prevention, safe infant sleep and teen driver safety. The statewide committee also wanted to investigate the possibility of using private online groups and list serves to share information with and between local teams.

Mr. Britt advised on Health Insurance Portability and Accountability Act (HIPAA) statutes involved in the sharing of such information online, as well as what could be construed as a public record and what might be a violation of privacy. The statewide committee emphasized that identifiable case information should not and would not be shared through these channels. It was decided that more training and guidance would be necessary to move forward with social media as a communication tool for this purpose. The state coordinator will work with Mr. Britt to create training for local teams to guide them in these activities.

• Jodi Yoder - Safe Kids, August 2015

Ms. Yoder began attending statewide committee meetings in August 2015 as a resource for child injury prevention programming. Safe Kids has 15 coalition locations in Indiana and can act as a partner in prevention activities for local teams in those regions. Ms. Yoder advised on the mission, goals and activities of Safe Kids Worldwide and noted that the coalition can provide some financial support to child safety advocates. The statewide committee unanimously agreed to include Safe Kids representatives as permanent members.

Anne Reynolds – ISDH Vital Records Epidemiologist; Kendra Ham – ISDH Infant Mortality Epidemiologist,
 December 2015

Ms. Reynolds and Ms. Ham attended multiple statewide committee meetings in 2015 to help explain vital records reporting and data. With the updated ICD-10 coding, reporting of the causes and manner of infant death has changed. Ms. Reynolds provided detailed guidance on the completion of death records, both at a state and local level, and discussed the responsible parties at each step in the process. The statewide committee then used this information to discuss training opportunities for the various disciplines included in the process.

• Captain Jerry Richert - Indianapolis Fire Department, December 2015

Captain Richert was one of the original creators of the Water Safety in Residential Neighborhoods (WARN) program and attended a meeting of the statewide committee to present it. WARN places an emphasis on home water hazards, including retention ponds. The statewide committee agreed with the education and format of the program and supported updating the materials for dissemination.

#### Knowledge Shared

The state coordinator worked to create awareness about the Indiana Child Fatality Review program and provide opportunities to network with organizations that could assist in program efforts.

Presentations were made at conferences, hosted by or for the agencies whose members serve on local teams, including the Indiana Emergency Response Conference, Children's Justice Act Conference, the Indiana Coroner's Annual Conference, and the Indiana Public Health Nurses' Conference. The state coordinator provided information to the Indiana Perinatal Quality Improvement Collaborative (IPQIC) Governing Council, the Commission on Improving the Status of Children, and the Indiana Injury Prevention Advisory Council. Cribs for Kids hosts a biennial conference on safe infant sleep, education and interventions. The state coordinator presented about the Indiana Safe Sleep Program there as a collaboration between the Department of Child Services (DCS) and the ISDH.

The ISDH Trauma and Injury Prevention staff also collected injury prevention and safe sleep information from Indiana Child Fatality Review staff, the statewide committee and the Safe Sleep Program for inclusion in an Injury Prevention Resource Guide. This resource, due for publication in early 2016, will be available as an online application and updated in real time for use by injury prevention professionals across the state.

#### Updates to the Indiana Code

In late 2014, the statewide committee proposed updates for the 2015 legislative session. Among the suggested updates that were codified:

#### IC 16-49-3-3

- 1) Inclusion of a provision for the review of near fatalities and serious injuries;
- 2) Revision of the code to require the county of incident to conduct the child fatality review and to allow the county of death to do so, if it chooses;

#### IC 16-49-3-7

1) Requirement that before July 1 of each year, the local team shall submit to the statewide committee a report containing a summary of the data collected by the team in the previous calendar year, along with prevention recommendations and suggestions to resolve system inadequacies.

The goal of these changes was to provide the local Child Fatality Review teams an opportunity to more accurately assess the injury trends in their jurisdictions, create more targeted prevention programs aimed at protecting the children in

their respective communities and ensure trends, recommendations and prevention activities are shared with the statewide committee. These legislative actions were adopted and implemented in 2015.

#### **Program Improvements**

In late 2015, a Memorandum of Understanding (MOU) between the Indiana Child Fatality Review Program and ISDH Vital Records Division was fully executed. The MOU allows Indiana Child Fatality Review staff access to pediatric death and birth certificates and vital records data as needed. Often, a Child Fatality Review is initiated when a death certificate is received through the health department. The statewide committee's access to this information provides the ability to pull records and data for child death cases requiring its review and also to verify that all applicable cases are being reviewed by local teams in a timely fashion.

The MOU also authorizes the state coordinator to share vital records data with Child Fatality Review programs in other states when the death and incident causing death cross state lines.

Access to Indiana vital records data will also allow Indiana Child Fatality Review staff to initiate case formation in the CDR on behalf of the local teams. This will assist local team members with the data-entry process and also help to ensure accuracy of demographic information therein. Further, vital records data makes available crucial baseline information to evaluate the quality of data being entered at the local level. A baseline review of completed SUID cases for the entire state will be conducted in 2016 to assess risk factors and circumstances surrounding SUID cases, as well as evaluate the practices of local child fatality review teams for case review and data entry.

#### Indiana Safe Sleep Program

SUID and SIDS are leading causes of death of infants in Indiana. To help prevent these deaths, the state coordinator helped facilitate a partnership between ISDH and DCS that has evolved into the Indiana Safe Sleep Collaborative Program. The Indiana Safe Sleep Program establishes partnerships with agencies in the State of Indiana to provide safe sleep education and Infant Survival Kits (one infant portable crib, fitted sheet with safe sleep message imprinted on it, wearable blanket, pacifier and safe sleep recommendations) for families who do not have safe places for their infants to sleep. The kit also includes educational messages that focus on three key risk-reduction recommendations from the American Academy of Pediatrics (AAP) and National Institutes of Health (NIH): infants sleep safest alone, on their backs, and in a separate, safe sleep environment. The accompanying education, with emphasis on the importance of prenatal care, breastfeeding, room-sharing, and smoking cessation in pregnancy and around infants, is intended to help families understand the risk factors associated with SIDS and infant death.

The Indiana Safe Sleep Program has benefited local teams and communities in all 92 counties with the availability of resources and education needed to provide a safe place for infants to sleep. DCS provided these Infant Survival Kits for several years prior to the collaboration with ISDH. With ISDH becoming a partner, the program has the ability to collect demographic information from all Infant Survival Kit recipients so outcomes associated with this endeavor can be evaluated.

In 2015, the Indiana Safe Sleep Program was brought under the supervision of the state coordinator. Housing both programs within one department encourages collaboration between local teams and regional crib distribution sites across the state maximizes the efforts to decrease the number of infant deaths due to unsafe sleep environments.

Throughout 2015, the Safe Sleep coordinator worked to improve guidance on best practices for distribution, education and the collection of reportable information. This work to provide uniform guidance improved accountability for both the distribution sites and the program coordinators. It also helped track recipients of kits and determine whether they had also received appropriate education. This systemic improvement helps gather evidence-based data to determine the greatest areas of need in Indiana.

In an effort to standardize the messaging that caregivers were receiving with their kits, a "Train the Trainer" webinar was developed to instruct distribution sites on what education components they should be offering to each kit recipient. These components include teaching the caregivers safe sleep practices for their infants and about the importance of early and adequate prenatal care and avoiding tobacco and drug use while pregnant and/or caring for an infant. This webinar was expected to be fully completed and live in early 2016.

As the number of crib distribution locations increases in Indiana, the partnership possibilities between local teams and injury prevention educators increases. New safe sleep educators are encouraged to connect with their local Child Fatality Review teams to create awareness about program availability in their jurisdictions. The Safe Sleep coordinator also updates the crib distribution sites with the activities of Child Fatality Review teams, thereby establishing an information loop where communities can begin to connect their prevention efforts for maximum impact.

Indiana Perinatal Quality Improvement Collaborative (IPQIC)

The Safe Sleep coordinator and Indiana Child Fatality Review staff have become active members in the Indiana Perinatal Quality Improvement Collaborative (IPQIC). The goal of IPQIC is to encourage efforts to lower the infant mortality rate in Indiana. In 2015, IPQIC chose to focus, in part, on lowering the number of infant deaths due to unsafe sleep factors and improving the education provided to families. A survey of Indiana hospitals' activities was conducted and best practices for education provided by other states were researched. The activities of the Indiana Safe Sleep Program were presented to IPQIC to increase awareness about the program's benefits to Indiana infants and provide guidance for potential hospital certification programs aimed at safe sleep education.

IPQIC sub-committees also worked to standardize the classification and coding of SUID cases, and the Indiana Child Fatality Review staff actively participated. Only through the improvement of the data collection surrounding SUIDs and infant death can the true burden be established and prevention efforts be implemented.

Meeting the Local Teams' Needs - SUIDI Training

The Indiana Child Fatality Review program began to analyze the immediate needs of local teams and their communities and, in early 2014, determined a focus on the prevention of SUID and SIDS was a priority for many agencies in Indiana.

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There exists a marked need for standardization of investigation techniques and cause and manner of death identification and classification. To this end, and with Preventive Health and Human Services Block Grant funding, we were able to offer Sudden Unexplained Infant Death Investigation (SUIDI) training opportunities across the state.

SUIDI, created by the Centers for Disease Control and Prevention (CDC) in 2006, aims to standardize and improve data collected at infant death scenes and to promote consistent classification and reporting of SUID cases (CDC, 2014). It also encourages the inclusion of all appropriate local agencies on the death scene in order to facilitate an emphasis on approaching all investigations as a team. First introduced in Indiana in 2007, the training for first responders was most recently offered here in 2010. With a goal of educating approximately 500 first responders representing each of the 92 Indiana counties, the statewide committee began in 2014 to take steps toward conducting multiple regional trainings. In order to assist trained agencies in conducting effective SUIDI protocol, the statewide committee offered the necessary equipment to each agency as a supplement to the class. This would include bound train-the-trainer textbooks and a SUIDI Scene Re-enactment newborn doll.

An online survey of local teams and death investigation professionals throughout Indiana was conducted in January 2015. This survey helped determine a baseline level of knowledge of the SUIDI protocol across Indiana and helped assess the program material needs of each local team and trainee. The statewide committee received 82 responses from 24 counties.

#### Among respondents:

- 64% had not received any previous SUIDI training.
- · Only 17% had previously received a SUIDI re-enactment doll.
- 14% were utilizing dolls in their investigations.

After conferring with experts in SUIDI protocol, as well as analyzing survey results, it was determined that a lifelike newborn doll would be the most appropriate tool to provide investigators. These were then procured from a distributor of medical training equipment.

In order to increase accessibility to the training sites and encourage attendance, the state was divided into five regions in which to conduct the SUIDI classes. Figure (7) shows the planned training map and locations of the classes.



Figure 7: SUIDI Training Event region map

Recognizing the importance of this training opportunity for their investigators, local venues graciously donated the space within which to conduct the classes. The sites were:

- 1) Tell City Junior-Senior High School Perry County
- 2) Public Safety Academy Allen County
- 3) Plainfield High School Hendricks County
- 4) Ivy Tech Lafayette Tippecanoe County
- 5) Mid-America Science Park Scott County

The SUIDI Training team consisted of both professionals trained through the original CDC Train-the-Trainer class in 2007 and those added in subsequent years. In order to most effectively communicate the need for SUIDI protocol in Indiana and also instruct on the necessary skills, the trainers each were subject matter experts in their respective fields. Among them were a national expert in SIDS prevention, a forensic pathologist, a coroner and law enforcement professional and a social worker trained in interview technique.

Invitations were sent through local teams and by directly contacting each county's law enforcement agencies, DCS staff, death scene investigators, pathologists, coroners and prosecutors. Each agency was encouraged to register multiple learners. By the completion of the fifth training, more than 430 professionals representing 79 counties were trained in SUIDI protocol.

As Child Fatality Review efforts have gained momentum in Indiana, a common occurrence noted in review is the miscommunication or even non-communication about death cases between disciplines within the same jurisdiction. By localizing the training sites, the SUIDI training team was able to, if needed, introduce professionals from interconnected jurisdictions and encourage them to collaborate.

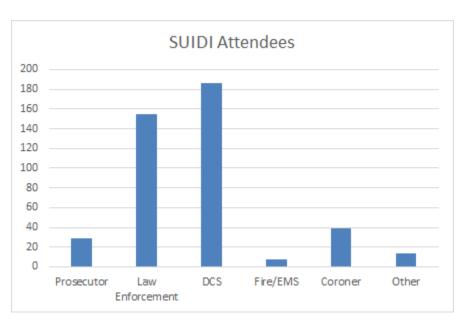


Figure 8: SUIDI Attendees by discipline

At the conclusion of the SUIDI training process in Indiana, the Indiana Prosecuting Attorneys' Council (IPAC) began working with the statewide committee to develop a pocket guide. This C-POD (Collaboration, Preservation, Observation and Documentation) guidebook, modeled after a similar resource in Washington, will provide investigators from all disciplines a reference tool for use during infant and child death and serious injury investigations. It emphasizes not only using proper investigative techniques for correct cause and manner of death determination, but also collaborating with other local resources and investigators within the jurisdiction. The state coordinator is managing the process of collecting the most up-to-date and relevant resource information for use in the guidebook and expects the draft to go to print in early 2016. Figure 9 shows a screenshot of a page from the guidebook.

Figure 9: Sample of C-POD Pocket Guide

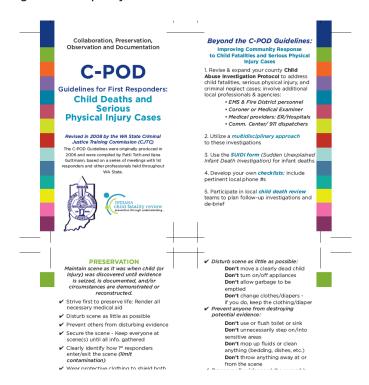


Figure 10: Doll Re-Enactment training in Fort Wayne



Throughout the SUIDI training process, learners and professionals were polled on their desire for and willingness to utilize a mobile device application for SUIDI and child death investigation protocol. In June, the state coordinator began working with ISDH program developers to design and create this resource. Projected for completion in 2016, the application will contain information from the C-POD Pocket Guide. It also will link to other resources for investigators and their clients, including information about investigating serious injury, safe infant sleep, appropriate child Indiana Statewide Child Fatality Review Committee Annual Report

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development milestones and important phone numbers. This app will be available for both Android and Apple devices and will be offered at no cost.

Meeting the Local Teams' Needs - Child Fatality Review Conference

With an emphasis on building local Child Fatality Review teams and increasing their capacity to effectively review cases and collect comprehensive data, the statewide committee hosted the first Indiana State Child Fatality Review Conference during the summer of 2015. Invitations were extended to all appropriate agencies and local Child Fatality Review teams in each of the 92 counties.

More than 160 people attended the June 12 conference to hear from national experts on child fatality review, injury prevention, coalition building, and the issues affecting our communities. Presenters emphasized the need for building partnerships, identifying champions in local communities and developing sustainable action plans to help prevent child injury and death and keep children healthy and safe. Collaboration among local agencies and self-care within the team were also pervasive themes.



Figure 12: Table Setting and event information, Indiana Child Fatality Review Conference



Figure 13: Indiana Child Fatality Review Conference, venue

Speakers included:

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- 1) **Teresa Covington, MPH** Executive director for the National Center for the Review and Prevention of Child Deaths
- 2) Gary Hanke Board of Directors, Charlie's Kids Foundation
- 3) Maura Hanke -- Board of Directors, Charlie's Kids Foundation
- 4) **Roberta A. Hibbard, M.D.** -- Professor of pediatrics and director, Section of Child Protection Programs, at Indiana University School of Medicine and Riley Hospital for Children at Indiana University Health
- 5) Kristina Korobov, J.D. -- Director of Prosecutor Education at the Marion County Prosecutor's Office
- 6) Bradley J. Russ Director of the National Criminal Justice Training Center (NCJTC)
- 7) Sarah Renner -- Indiana State Department of Health Women, Infants and Children (WIC) director
- 8) **Jennifer Walthall, M.D., M.P.H.** -- Indiana State Department of Health deputy state health commissioner and director for health outcomes; associate professor of emergency medicine and pediatrics at Indiana University School of Medicine; division chief for pediatric emergency medicine and program director for the Emergency Medicine and Pediatrics Residency.

#### Fetal and Infant Mortality Review Expansion

For Indiana children less than 1 year of age, congenital anomalies and perinatal conditions, such as prematurity and low birth weight, are the primary causes of death. For this reason, local Child Fatality Review teams in Indiana may need to expand their review of the health risks associated with infant mortality and associated prevention efforts, such as smoking cessation and reducing obesity rates. Some local teams have decided to address these risk factors by reviewing all infant deaths in order to improve access and quality of health care services for mothers and children. Some regions have also begun addressing these risk factors through Fetal Infant Mortality Review (FIMR) teams.

FIMR is utilized as an action-oriented community process that continually assesses, monitors, and works to improve service systems and community resources for women, infants, and families. Because FIMR follows the Maternal Mortality Review (MMR) model, it implements a case review process focused on infant deaths in a community context. Counties conducting FIMR meetings in 2015 included Marion County and the Vanderburgh County regional team (Vanderburgh, Gibson, Warrick, and Posey counties).

To promote the expansion of FIMR in Indiana, the ISDH provided funding in 2014 to help implement additional FIMR teams in several counties, including Allen, St. Joseph and Elkhart counties, the East Central region (Grant, Blackford, Jay, Delaware, and Randolph counties) and the continued work of the Vanderburgh County regional team.

In December 2015, representatives from the National Center for the Review and Prevention of Child Deaths and FIMR experts and professionals from the American Congress of Obstetricians and Gynecologists (ACOG) came to Indiana to provide a joint training for those counties with both child fatality review and FIMR teams. More than 60 FIMR and child

death review team members were trained over two days. The training, focused on collaborative partnerships between FIMR and child death review, included sessions on best practices for both disciplines and a mock review.





Youth Water Safety & Drowning Prevention Committee (YWSDPC)

In early 2015, members of the Marion County Child Fatality Review Team noticed a trend of water-related fatalities and assembled a group of professionals for whom water safety and drowning prevention are a focus. Membership includes Prevent Child Abuse, Safe Kids, local firefighters, the Indiana Department of Natural Resources (DNR), injury prevention epidemiologists and the local health department. This Youth Water Safety & Drowning Prevention Committee (YWSDPC) began meeting monthly to examine the burden and incidence of childhood injury and death due to water hazards in Indiana, with a specific focus on pool safety and retention ponds. Discussions surrounded what specific water hazards are most dangerous for children and how to best reduce the associated risks, as well as current state and local regulations and statutes governing pool barriers, boating safety, retention pond construction, boating and water safety lessons and personal flotation devices.

In August, the statewide committee accepted the YWSDPC as a sub-committee. This affiliation aids in the capacity of the YWSDPC to access vital records data in order to better understand the causes and circumstances of accidental water-related death in Indiana children. The mission of the YWDSPC was then set as follows:

"The YWSDPC is a collaborative effort to assist the Statewide Child Fatality Review Committee in their effort to increase public awareness and promote water safety and prevent drowning and near drowning incidents among our youth."

At the 2015 Indiana Emergency Response Conference (IERC), an Indianapolis firefighter introduced the state coordinator to the Water Awareness in Residential Neighborhoods (WARN) program. WARN, the only water safety education program that places a strong emphasis on retention pond hazards, was created in 2002 by a water safety expert and first responder in Indiana after several young children drowned. WARN was designed as a package that any community Indiana Statewide Child Fatality Review Committee Annual Report

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educator could easily adopt and implement for adult and youth audiences. It includes a coloring book and other age-appropriate discussion for younger participants and was branded with a mascot and supplemental materials to reinforce the messages. The adult version of the WARN education shares hazards in the home and neighborhood and how caregivers can avoid them and teach their children how to stay safe around bodies of water. Figure (X) shows the front page of the original WARN coloring book.

Figure 14: WARN Coloring Book



# Water Safety Awareness Activity Book

The program creator, Capt. Jerry Richert of the Indianapolis Fire Department, was invited to the statewide committee to share the content and program. The YWSDPC then researched and discussed the utility of WARN and agreed to update and reinvigorate the content and offer it to local first responders as a tool for their public education departments. Research has been done on which agency can and will house the WARN program and the YWSDPC agreed to reintroduce the updated WARN program at the 2016 IERC.

#### DOSE Program Initiative in Indiana

During a 2015 Cribs for Kids Conference in Philadelphia, the state coordinator was introduced to Direct On-Scene Education (DOSE) as a primary prevention program for unsafe infant sleep factors. DOSE is an innovative train-the-trainer program to help eliminate sleep-related infant death due to suffocation, strangulation or positional asphyxia by using first responders to identify and remove hazards while delivering education on-scene during emergency and non-emergency runs. Created by fire Captain James Carroll and NICU nurse Jennifer Combs in Broward County, Fla., DOSE has been adopted as an initiative of emergency response agencies in Tennessee, New Jersey, Michigan and Louisiana, often in conjunction with the Cops & Cribs Program.

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The statewide committee plans to bring Captain Carroll to Indiana in 2016 to train first responders at the IERC. Through Preventive Block Grant funds, session attendees will be offered the train-the-trainer education and the accompanying materials for their communities. IERC representatives are also planning to utilize Captain Carroll as a keynote address for the conference. They are hopeful that increasing awareness about the role first responders play in infant and child safety will help communities lessen the burden of those injuries and deaths.

Indiana Child Fatality Review staff will continue to research best practices for DOSE and data collection. As universal data collection methods for fire departments, emergency medical services and other pre-hospital care does not seem to be the norm, processes and data collection tools may need to be created. DOSE edification in the home is also often accompanied by the distribution of supplemental educational materials for caregivers; therefore, it will also be necessary to evaluate existing tools and determine which will be most appropriate for use in Indiana communities. Considerations will include cost-effectiveness, space on emergency response vehicles, willingness of emergency response professionals to use the materials and sustainability.

Invitations to attend the train-the-trainer session will be sent through local Child Fatality Review teams, professionals trained in SUIDI, hospital-based trauma and EMS, IERC distribution lists, local health departments, Safe Sleep crib distribution sites, Indiana Homeland Security distribution lists and direct contact with events hosted by or catering to first responders.

#### SPOTLIGHT ON PREVENTION: LOCAL TEAM ACTIVITIES & SUCCESSES

St. Joseph County Fetal and Infant Mortality Report, 2015

In 2015, St. Joseph County, Ind., reported a fetal mortality rate of 5.8 per 1,000 (19 deaths) and an infant mortality rate of 5.5 per 1,000 (18 deaths). The St. Joseph County Child Fatality Review Team met regularly and was able to review some of the infant deaths, resulting in press releases to the media regarding the importance of infant safe sleep practices. The Michiana Perinatal Collaborative – a team of health and social work professionals representing St. Joseph and Elkhart counties – continued to meet to discuss the resources in place and the needs that still existed to address infant mortality and healthy families. The Michiana Health Information Network (MHIN), a Health Information Exchange, studied the different types of prenatal care provider data collection workflows that they were receiving, with the goal of improving discrete data contribution of important prenatal health indicators.

The St. Joseph County Health Department applied for and received funding from the ISDH to implement a FIMR program. Planning for the program began in April 2015 with discussions between the St. Joseph County Health Department and Indiana University South Bend, and the program is set to launch in mid-2016 with the hiring of a FIMR program coordinator within the health department.

Lake County Case Trends, as reported by the Local Child Fatality Review Team

The Lake County Child Fatality Review Team presented the state coordinator with a comprehensive list of trends and circumstances noticed during case review.

- A knowledge deficit exists regarding respiratory distress. This is noted in cases where medical attention is not sought until the child is nearing respiratory arrest.
- Multiple deaths are related to congenital anomaly complications.
- Multiple deaths are related to physical abuse.
- Many cases exhibit a lack of prenatal care.
- There are many SIDS cases.

With the trend data available, the team was able to suggest possible prevention programming for its region.

- Introduce an education program for staff of schools/day cares to recognize signs of abuse in toddler/school-age children.
- Reinforce education with health care providers on signs and symptoms of abuse and mandatory reporting.
- Create and distribute public service announcements or fliers with information on respiratory distress in infants
  and children. Make material available in multiple languages, and use social media to propagate the messaging.
  Create a website or a link to information and resources.
- Improve access to child safety restraints and car seats. Research existing programming and create collaborative relationships.
- Reduce accidental ingestion injury by emphasizing proper storage of medications in all homes.

## Madison County Billboard Program

Madison County Child Fatality Review Team members responded to the need for a public education program for infant caregivers. They chose to focus on substance abuse in pregnancy and safe infant sleep. These billboards were placed in Hamilton, Hancock, Madison and Tipton counties.

Figure 15: Substance Abuse in pregnancy billboard

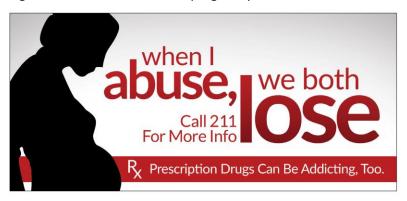


Figure 16: Safe Infant Sleep billboard



St. Joseph County Child Fatality Review Team Activity, as reported by the team chair

The St. Joseph County Child Fatality Team met eight times in 2015, for the review of 11 infant/child deaths. The team did not find any patterns of death that merited specific prevention work, but did make note of five teenage suicides, which is an increase from zero cases in 2014 and three in 2013.

The team was pleased to see improvement in the number and circumstances of infant sleep-related deaths. In 2014, St. Joseph County had seven sleep-related deaths, six of which were African-American infants. In 2015, there were two sleep-related deaths, one of which was African American. In early 2015, the St. Joseph Child Fatality Review Team

issued a press release about safe infant sleep and team members presented data and concerns to the local Black Ministerial Alliance and their wives. This effort may have helped, but data available at this time is not complete enough to determine the impact.

#### RECOMMENDATIONS

Through the work of the Indiana Child Fatality Review Program, the statewide committee was able to generate recommendations for stakeholders. Many of these recommendations involve removing risk factors common in child fatality cases.

## **Sudden Unexplained and Sleep-Related Infant Deaths**

While the Indiana Safe Sleep Program is helping caregivers provide their infants with a safe sleep environment, the education new parents receive varies from agency to agency. Prenatal clinics and hospital lactation consultants often provide conflicting messages. Information can also vary from that of pediatricians and other medical providers. Offering a standardized education protocol has been the goal of the Indiana Safe Sleep Program, and sharing that message in hospitals and clinics statewide would be beneficial.

A consistent Safe Sleep message should include the recommendations of the American Academy of Pediatrics (AAP), which states that babies should sleep alone, on their back, and in a crib. Further, empowering new parents to instruct all caregivers on safe sleep practices should be emphasized.

The Indiana Child Fatality Review Program supports the AAP recommendations to prevent SUID by ensuring safe sleep environments for infants, including:

## 1) Safe Sleep Practices

- Always place babies to sleep on their backs during naps and at nighttime. Because babies sleeping on their sides are more likely to accidentally roll onto their stomach, the side position is just as dangerous as the stomach position.
- Avoid letting the baby get too hot. The baby could be too hot if you notice sweating, damp hair, flushed cheeks, heat rash, and rapid breathing. Dress the baby lightly for sleep. Set the room temperature in a range that is comfortable for a lightly clothed adult.
- Consider using a pacifier at naptime and bedtime. The pacifier should not have cords or clips that might be a strangulation risk.

## 2) Safe Sleep Environment

- Place babies on a firm mattress, covered by a fitted sheet that meets current safety standards. For more about crib safety standards, visit the Consumer Product Safety Commission's web site at www.cpsc.gov.
- Place the crib in an area that is always smoke-free.
- Don't place babies to sleep on adult beds, chairs, sofas, waterbeds, pillows, or cushions.

• Toys and other soft bedding, including fluffy blankets, comforters, pillows, stuffed animals, bumper pads, and wedges, should not be placed in the crib with babies. Loose bedding, such as quilts and blankets, should not be used, as these items can impair the infant's ability to breathe if they are close to his face. Sleep clothing, such as sleepers, sleep sacks, and wearable blankets, are better alternatives to blankets.

## For Families & Community

- Families with infants should follow the AAP recommendations on safe sleep as listed above.
- Agencies tasked with health education should follow the AAP recommendations and teach communities safe sleep practices and provide services and education to new parents. This may include PSAs for safe sleep education, safe breastfeeding/sleep practices and safe sleep education in conjunction with car seat check-up events and other child safety fairs.
- Law enforcement and first responders should be trained to identify potential unsafe sleep environments, receive training on infant death scene investigations, and learn how to complete the infant death investigation checklists.
- Early childhood home visitors should educate families about and reinforce safe sleep practices.

## For Hospitals

- All Indiana hospitals caring for infants should model safe sleep practices using the AAP recommendations, including placing infants on their back to sleep and having cribs free of soft objects and loose bedding.
- All Indiana hospitals caring for infants should adopt the Cribs for Kids standard of practice and strive for a Gold level of certification.

### For Medical Providers

- OB-GYN providers should begin discussions on infant safe sleep during prenatal visits.
- Clinicians should become aware of and respect cultural beliefs and practices in infant care and be prepared to address safe sleep messaging appropriately.
- Pediatricians should continue safe sleep discussions during well-child visits.

#### For Childcare Providers

- Adhere to the AAP recommendations on safe sleep.
- Ensure all childcare workers/staff are educated on the AAP safe sleep recommendations.

## For Policymakers

• Encourage training of coroners to use a method for ensuring a standard identification and definition for all SUID deaths.

- Encourage pathologists to adopt a standard Pre-Autopsy Conference in all infant deaths, which includes a completed SUIDI form.
- To improve data accuracy, train local health departments on the proper completion of death certificate fields directly relating to the cause and manner of infant death.

### **Deaths Due to Motor Vehicle Crashes**

While fatalities due to motor vehicle crashes have declined in recent years, crashes were still the leading cause of unintentional injury in children in 2015. More steps can be taken to protect Indiana children.

## For Parents & Caregivers

- Place children in the appropriate child safety restraints when operating a motor vehicle.
- Children should always wear properly fitted helmets when participating in any motorized or non-motorized wheeled activities, including the use of bicycles, skateboards, skates, scooters, ATVs, golf carts, etc.
- Children below the age of 16 should not operate or ride on an off-road vehicle without proper training and supervision.
- Ensure proper supervision of children at all times.
- Model good behavior by always wearing a seatbelt; never operate a vehicle when under the influence of alcohol and/or drugs.
- Avoid distracted driving, including texting and phone use while driving.

#### For the Community

- Law enforcement officers should continue primary enforcement of child restraint violations.
- Law enforcement officers should continue rigorous DUI enforcement and educate the community regarding the consequences of driving under the influence of alcohol and/or drugs.
- Communities and parents should collaborate with the ISDH and Safe Kids to promote awareness about child
  passenger and motorized vehicle safety and encourage participation in events such as car seat check-ups, safety
  workshops, and health fairs. They should connect families to organizations who can provide information on
  child safety seats for those in need.

#### **Suicide Deaths**

Child suicides are on the rise in Indiana, and tragically, the victims are getting younger. Understanding the circumstances and events leading up to the suicide can aid in developing appropriate interventions for prevention efforts.

## For Parents & Caregivers

- Watch children with known behavioral problems (substance abuse and delinquency) or possible mental disorders (depression or impulse control problems) for signs and symptoms of suicidal ideation and immediately seek early treatment and care.
- Talk with children about firearm safety and limit youth access to any lethal means.
- Monitor children's social media for any talk about suicide and take immediate action.

# For the Community

- Encourage Indiana schools to collaborate with the Indiana Suicide Prevention Coalition to support and implement school and community prevention programs teaching students how to address suicide and related behaviors. Promote implementation of a standardized approach to bereavement counseling within schools.
- Create partnerships between the juvenile justice system, mental health organizations and the school system to identify and assist children with a history of trauma.
- Encourage community leaders to hold appropriate events to provide education on gun safety and distribute gunlocks to families.
- Add education programs about suicide prevention to after-school clubs, the YMCA, and other youth-focused organizations.

## For Mental Health Clinicians

- Encourage mental health care providers to continue to work with the Department of Education (DOE) to ensure that children with mental health issues have appropriate discharge plans in place.
- Evaluate current practices surrounding the care and discharge of youth with a history of mental illness.
- Work to improve communication with parents, schools, and appropriate social work agencies so a continuum of care can be established.

#### **Infant Deaths Due to Prematurity**

A death due to prematurity is one in an infant born prior to 37 weeks gestation with no other underlying cause of death. While it is not always possible to determine if prematurity is preventable, many of the risk factors associated are preventable, such as a lack of prenatal care or smoking while pregnant. Lowering the infant mortality rate in Indiana will be dependent upon identifying resources aimed at reducing these risk factors, as well as addressing racial disparities.

### For Parents & Caregivers

- Learn and understand the importance of prenatal health and improve reproductive, nutritional, physical and mental health prior to pregnancy.
- See a doctor as soon as you know you are pregnant.
- If you are pregnant, do not smoke.

### For Medical Providers

- Work to ensure every interaction with women of childbearing age is an opportunity to discuss preconception or pregnancy health.
- Follow established guidelines to monitor and reach out to women known for higher-risk pregnancies, including women with substance use disorder.

### For the Community

- Understand and promote awareness about the importance of a woman's preconception health and the long-term impact it has on her health and the health of future children.
- Connect with local schools and advocacy centers to make every young woman aware of the prenatal clinics and assistance available in their region.
- Engage young men and fathers in parenting classes and health care information pertaining to infants and young children.
- Continue to engage and assist new Fetal and Infant Mortality Review Teams across the state.

## **Improving Indiana's Child Fatality Review Process**

The Indiana Statewide Child Fatality Review Committee learned many lessons and made vast improvements in the status of the child fatality review process in Indiana during 2015. By seeking education, establishing and connecting with local teams and placing an emphasis on information sharing and data collection, the committee's work has improved Indiana's capacity for examining child death trends. Per the Centers for Disease Control and Prevention (CDC) and the Healthy People 2020 initiative, 90 percent of all child deaths due to external causes should be reviewed by a Child Fatality Review team. While Indiana is making progress toward that goal, there is still work to be done.

## For Local Child Fatality Review Teams

With many local Child Fatality Review teams added to the Indiana Child Fatality Review Network through 2014 and 2015, emphasizing best practices for these dedicated injury prevention professionals is crucial for maximizing their efforts on behalf of Indiana children. Review teams should:

- Establish collaborative relationships with local health departments to more effectively create protocol through which the team members can be notified in a timely manner of reviewable child death cases.
- Ensure the inclusion of representatives from local schools, fire departments and emergency response agencies on the Child Fatality Review team. These professionals are often overlooked in the review process and are invaluable sources of information about the incident scenes and case history information.
- During the child fatality review, appoint a representative to enter data and discussion points into the National Child Death Review Case Reporting System (CDR). The collective data available during a review discussion are often difficult to duplicate retrospectively and can be critical to determining risk factors.

- Notify local hospitals and birthing centers when infants born under their care die in unsafe sleep environments.
   Encourage medical professionals and hospital administrators to evaluate their current safe sleep education processes and improve upon them as appropriate.
- Research and connect with local injury prevention and child advocacy agents in your community. Successful propagation of prevention programming and education is intensified through collaboration.

## For the Indiana Statewide Child Fatality Review Committee

- Provide continuous training and education opportunities for Local Child Fatality Review Teams and mentor, as needed.
- Present Direct On-Scene Education (DOSE) training to first responders across the state in an effort to promote the primary prevention of infant death due to unsafe sleep hazards.
- Oversee the improvement and implementation of the Water Awareness in Residential Neighborhoods (WARN) program across the state.
- Create a standardized communication network between the statewide committee and the local teams to establish a feedback loop.
- Train professionals in the appropriate investigative and data collecting techniques associated with infant and child death.
- Investigate options for more timely delivery of death certificates to local teams, as well as strategies for improved data collection and data entry of those child deaths reviewed by local teams.

## **RESOURCES**

For more information on ways to help your baby survive and thrive, visit:

First Candle www.firstcandle.org (443) 640-1049

For resources to assist with providing a safe sleep environment for your child, please contact:

Fausta Houzanme
Safe Sleep Coordinator
Child Fatality Review Division
(317) 233-7258
FHouzanme@isdh.in.gov

American Academy of Pediatrics Policy Statement on Safe Sleep

http://pediatrics.aappublications.org/content/early/2016/10/25/peds.2016-2938

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For information on infant crying, soothing, and coping, visit:

The Period of Purple Crying (801) 447-9360 PURPLEcrying.info

For more information on child injury prevention, please visit:

Child Fatality Review Program Indiana State Department of Health http://in.gov/isdh/26198.htm

Trauma & Injury Prevention Program Indiana State Department of Health Indianatrauma@isdh.in.gov http://in.gov/isdh/25394.htm

Safe Kids Worldwide http://www.safekids.org/

The Children's Safety Network http://www.childrenssafetynetwork.org/injurytopic

Automotive Safety Program – Indiana (800) KID-N-CAR (800) 543-6227 http://www.preventinjury.org/

If you suspect child abuse or neglect, please contact:

The Indiana Child Abuse and Neglect Hotline (800) 800-5556

Prevent Child Abuse Indiana Pcain.org

Poison Hotline (800) 222-1222

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

Baby & Me Tobacco Free http://www.babyandmetobaccofree.org/

Indiana Perinatal Quality Improvement Collaborative Report to the Governing Council https://secure.in.gov/isdh/files/Addressing\_Infant\_Mortality\_in\_Indiana.pdf

Tobacco Prevention & Cessation Indiana State Department of Health https://secure.in.gov/isdh/tpc/index.htm

Centers for Disease Control and Prevention Infant Mortality http://www.cdc.gov/reproductivehealth/MaternalInfantHealth/InfantMortality.htm

Labor of Love http://www.in.gov/laboroflove/index.htm

Tobacco Quit Line <a href="http://quitnowindiana.com/">http://quitnowindiana.com/</a>
(800) QUIT-NOW ((800-784-8669))

Injury Prevention Resource Guide http://www.in.gov/isdh/25396.htm

Maternal & Child Health Division Indiana State Department of Health http://www.in.gov/isdh/19571.htm

Maternal & Child Health MOMS Helpline http://www.in.gov/isdh/21047.htm 1-844-MCH MOMS (844-624-6667)

Trauma & Injury Prevention Division Indiana State Department of Health

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http://www.in.gov/isdh/19537.htm

Indiana Women, Infants & Children Program (WIC)
Indiana State Department of Health
http://www.in.gov/isdh/19691.htm

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- 7. MCCFRT, 2014