



Arkansas Infant and Child Death Review Program

Annual Report

December 2015

Compiled by:

Arkansas Infant and Child Death Review Program

Injury Prevention Center at Arkansas Children's Hospital

Funding provided by:



Table of Contents

2015 Annual Report Summary	Page 3
Infant and Child Death Review Teams	Page 4
2015 Data Overview	Page 5
Local ICDR Teams Summaries	Page 6
AR Infant Mortality Team	Page 7
Central AR ICDR Team	Page 8
Delta Region ICDR Team	Page 9
Northeast AR ICDR Team	Page 10
Northwest AR ICDR Team	Page 11
Ozark Mountain ICDR Team	Page 12
Pulaski County ICDR Team	Page 13
River Valley ICDR Team	Page 14
South Central ICDR Team	Page 15
Cumulative Program Data	Page 16
Additional Review Findings	Page 17
Sleep-Related Deaths of Infants	Page 17
Demographic of Parents	Page 18
Omission/Commission	Page 18
Direct/Indirect Factors in Death	Page 19
Preventability	Page 19
ICDR Team Recommendations and Activities	Page 20
Team Recommendations for Prevention of Sleep-Related Infant Deaths	Page 20
Other Team Recommendations	Page 21
Local Team Activities in 2015	Page 21
ICDR Program Educational and Other Activities in 2015	Page 22
Media	Page 22
Publications	Page 22
Trainings Presented	Page 23
Educational Activities for ICDR Staff	Page 23
Boards and Committees	Page 24
Moving Forward	Page 24
New Teams for 2016	Page 24
Other ICDR Activities Planned for 2016	Page 24



2015 Annual Report Summary

Infant and Child Death Review Teams	AIM (Infants Only) Central AR Delta Region Northeast AR Northwest AR Ozark Mountain Pulaski County South Central AR River Valley			
	2015 Data		Since Program Inception (2011 – 2015)	
Total Cases Reviewed	77		196	
	Infants (<1 year old)	1 – 17 year olds	Infants (<1 year old)	1 – 17 year olds
Top 3 Causes of Death	1. Sudden Unexplained Infant Death (SUID) 2. Asphyxia 3. Fire, Burn or Electrocution	1. Motor Vehicle Collisions 2. Weapon 3. Drowning	1. Sudden Unexplained Infant Death (SUID) 2. Asphyxia 3. Motor Vehicle Collisions/Weapon	1. Motor Vehicle Collisions 2. Drowning/ Weapon 3. Fire, Burn or Electrocution
Reviewed Cases Determined Preventable	94%	85%	87%	80%
Reviewed Cases Listing Acts of Omission/Commission	89%	86%	75%	66%
ICDR Program Website	http://www.archildrens.org/Services/Injury-Prevention-Center/Infant-Child-Death-Review.aspx			

Infant & Child Death Review Teams

The Arkansas Infant and child Death Review (ICDR) Program currently has 8 local level review teams that review the unexpected death of children in Arkansas ages birth to 17 years old. These 8 local teams cover 49 counties, which currently account for approximately 79% of all pediatric deaths in AR from years 2010 – 2014. Local teams were originally named based on county of contact; however, to better reflect the team's regional area, teams were renamed in 2015 (Figure 1). In addition, the ICDR Program has one state level team, the AR Infant Mortality (AIM) review team. The AIM Team reviews cases of unexpected death of infants only (<1 year old) in the remaining 26 counties. Infant deaths have accounted for 60% of all pediatric deaths in Arkansas and 48% of reviewable pediatric deaths from 2010 -2014 (Figure 2). With the introduction of the AIM Team in 2014, we now have the ability to review 100% of all reviewable infant deaths in the state.

Figure 1

ICDR Team Locations

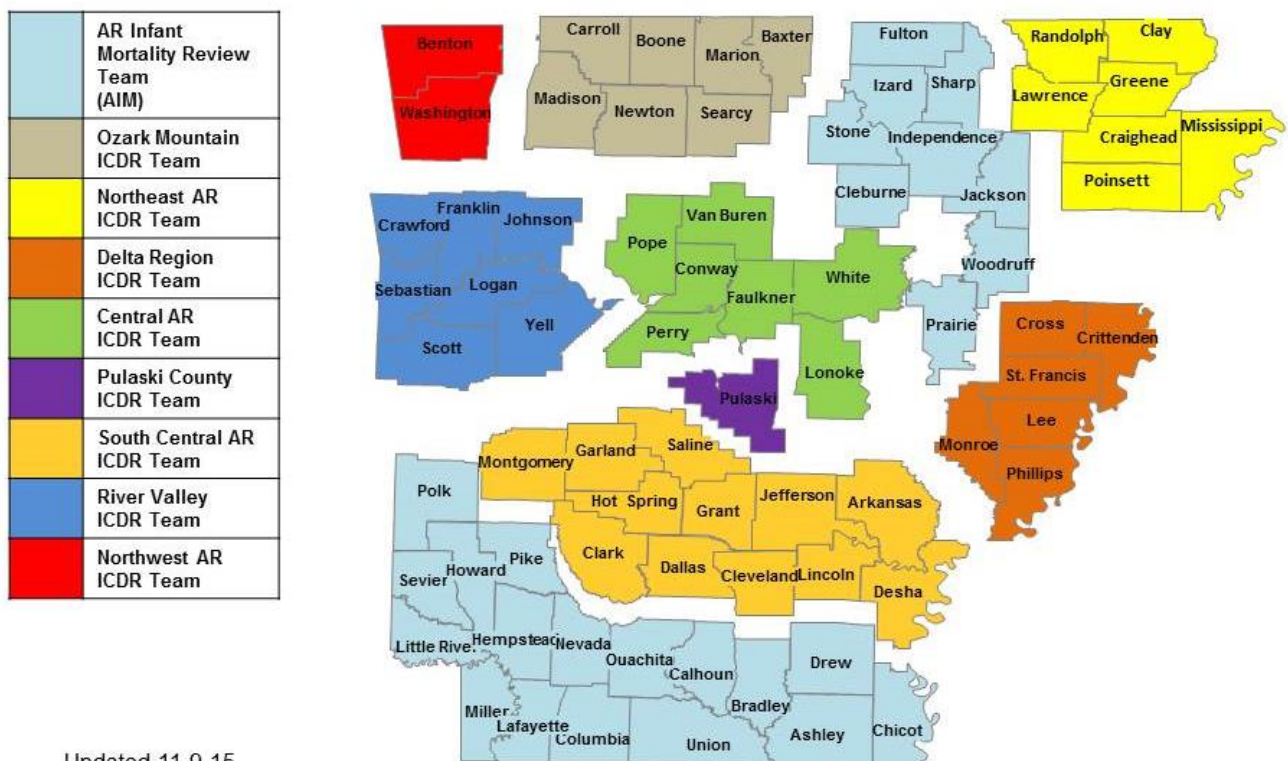
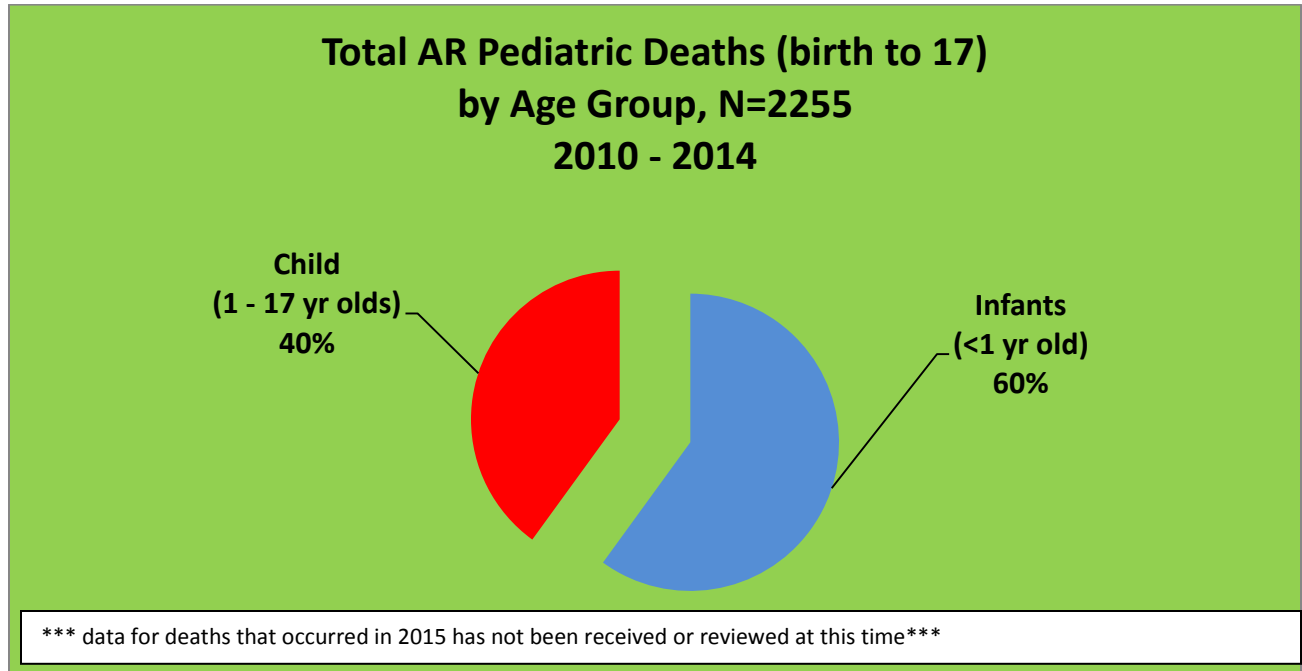


Figure 2



2015 Data Overview

In 2015, ICDR Teams reviewed 77 cases, with infant deaths making up 49% of the reviewed cases (Figure 3). This brings the total cases reviewed since program inception to 196 (Figure 4).

Figure 3

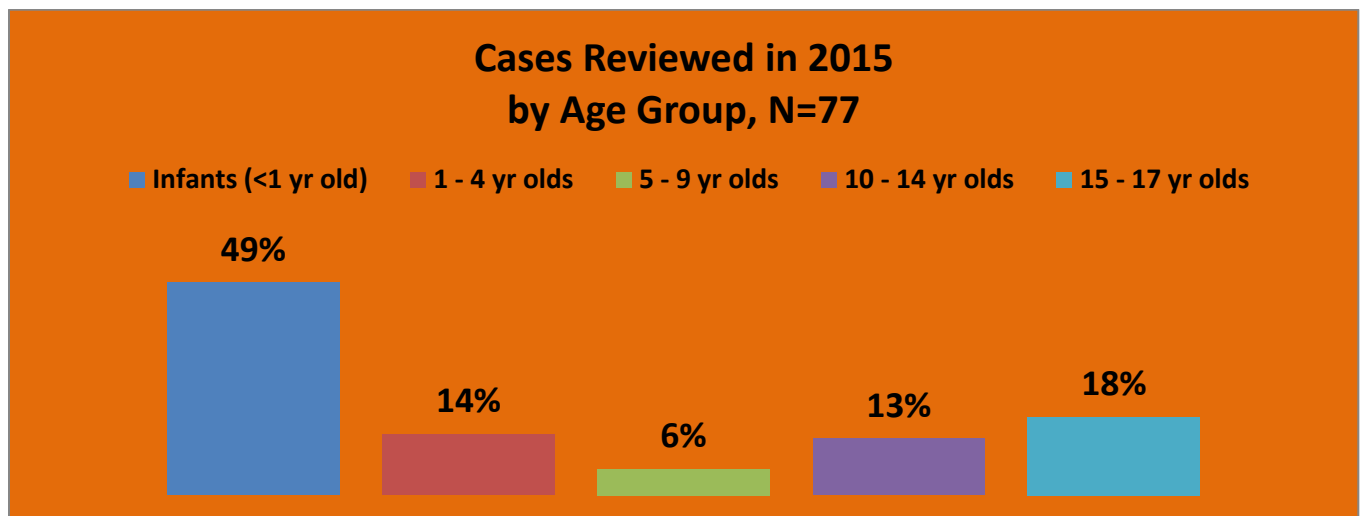
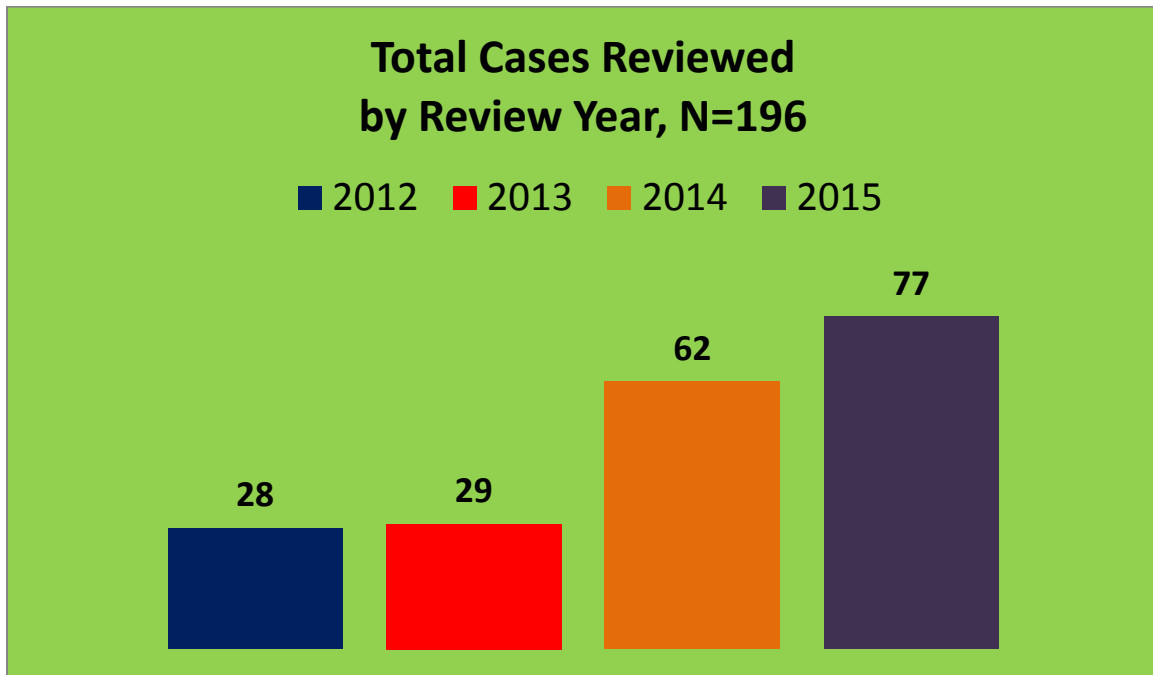



Figure 4

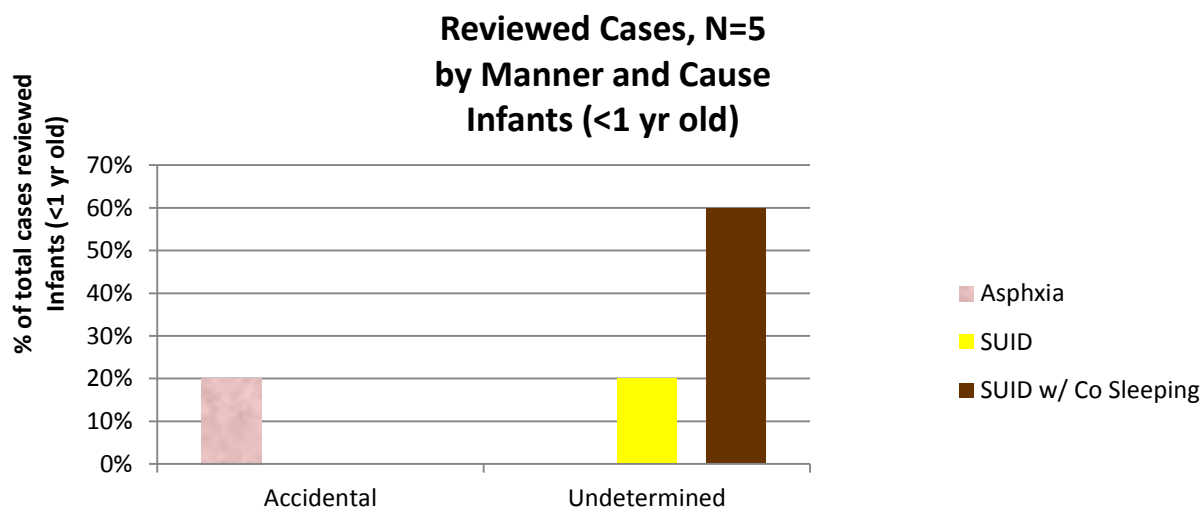


Local ICDR Team Summaries

Our local review teams give us the ability to look at the death of a child through the eyes of the community and its members. All of our local team members work and/or reside in the area of the team they serve, which gives us firsthand insight into the needs of the community. Local teams have expanded their role from reviewing cases to leading prevention efforts within their respective disciplines, agencies and counties. Following are summaries of the cases reviewed to date by local teams, for both the infant and 1 – 17 year old age group, and the percentage of reviewed deaths determined to have been preventable. Finally, we report local team recommendations related to sleep related incidents to illustrate the potential to prevent future deaths in this manner.



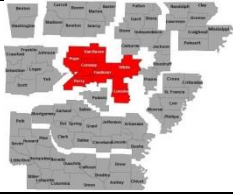
Arkansas Infant Mortality Team Summary	
 <p>*** Infant Reviews Only ***</p>	<p>Counties covered:</p> <p>Ashley, Bradley, Calhoun, Chicot, Cleburne, Columbia, Drew, Fulton, Hempstead, Howard, Independence, Izard, Jackson, Lafayette, Little River, Miller, Nevada, Ouachita, Pike, Polk, Prairie, Sevier, Sharp, Stone, Union and Woodruff</p>



% of Total Reviewed Cases Determined Preventable	100%
% of Total Reviewed Cases Related to the Sleep Environment	100%



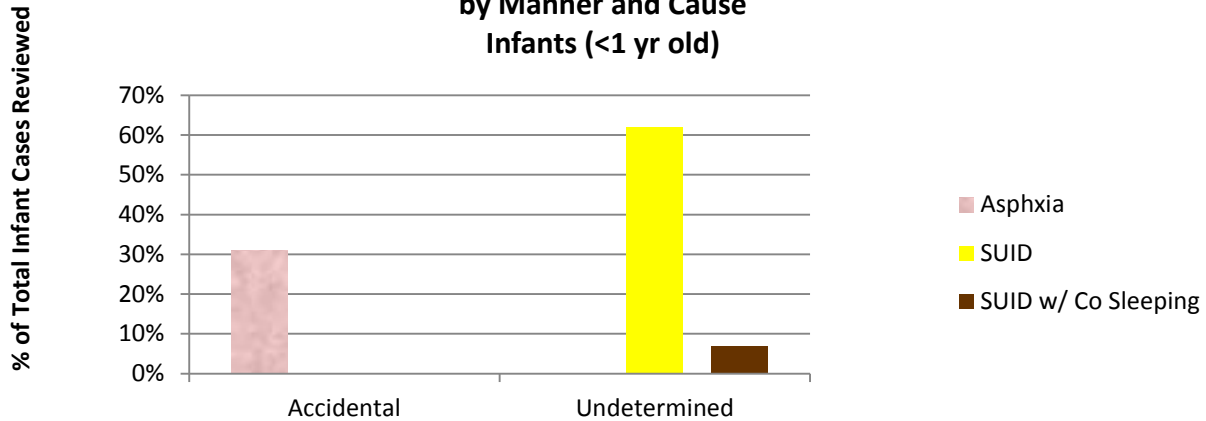
Central AR ICDR Team Summary



Counties Covered:

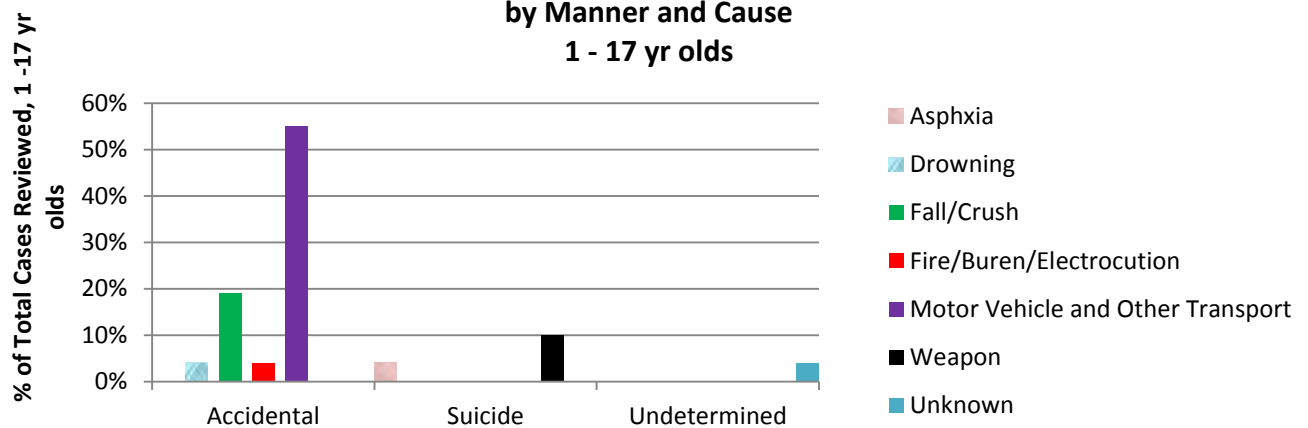
Conway, Faulkner, Lonoke, Perry, Pope, Van Buren and White

Reviewed Cases, N=13 by Manner and Cause Infants (<1 yr old)




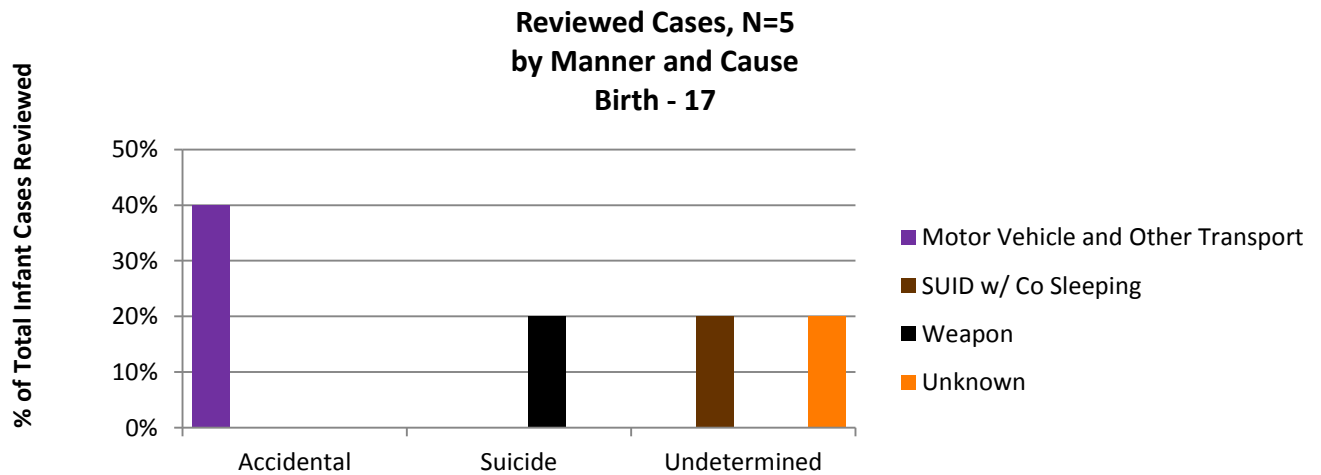
% of Total Reviewed Cases Determined Preventable	77%
% of Total Reviewed Cases Related to the Sleep Environment	85%

Reviewed Cases, N=22 by Manner and Cause 1 - 17 yr olds



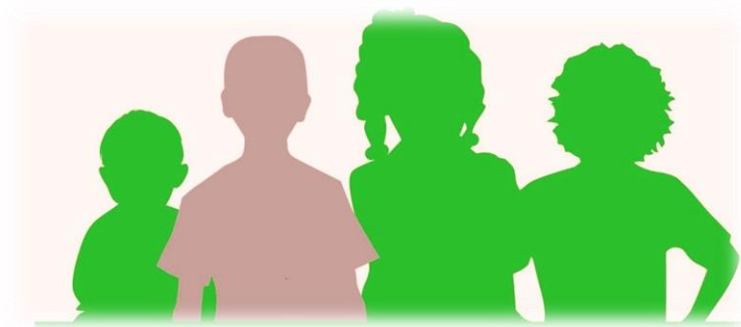
% Total Reviewed Cases Determined Preventable	68%
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Delta Region ICDR Team Summary	
	<p>Counties Covered:</p> <p>Crittenden, Cross, Lee, Monroe, Phillips and St. Francis</p>



*** Both age groups combined because team is new and individual totals are low ***

% of Total Reviewed Cases Determined Preventable	100%
% of Total Reviewed Cases Related to the Sleep Environment	40%



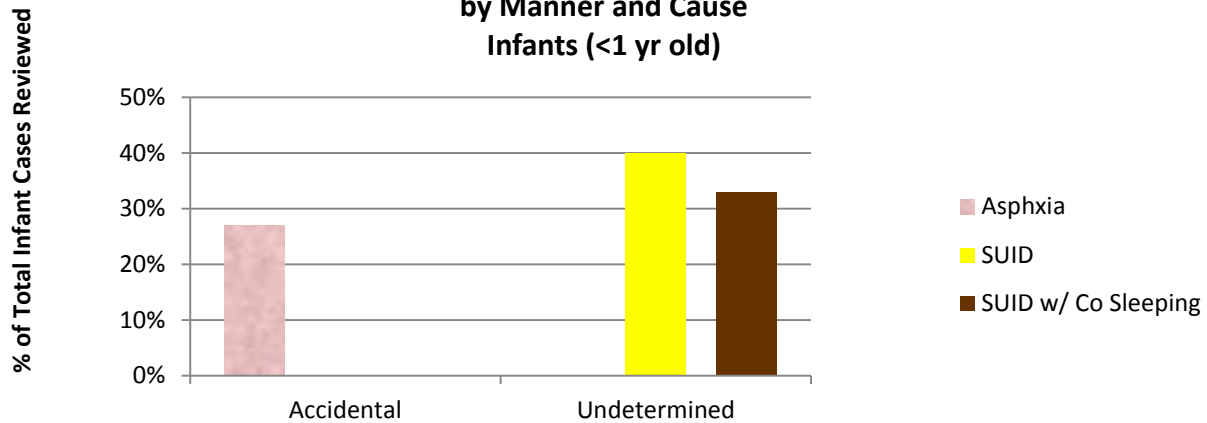
Northeast AR ICDR Team Summary



Counties Covered:

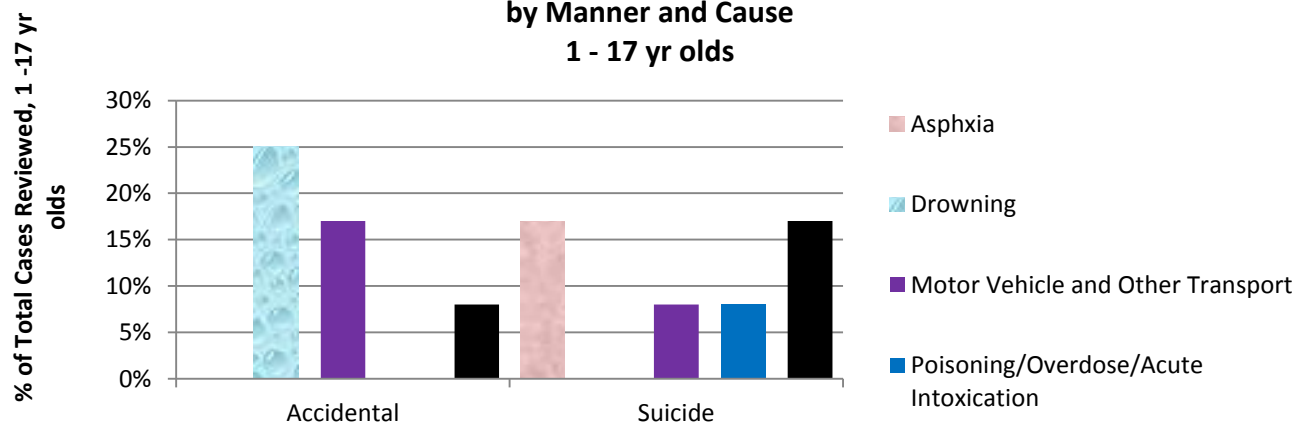
Clay, Craighead, Greene, Lawrence, Mississippi,
Poinsett and Randolph

Reviewed Cases, N=15 by Manner and Cause Infants (<1 yr old)




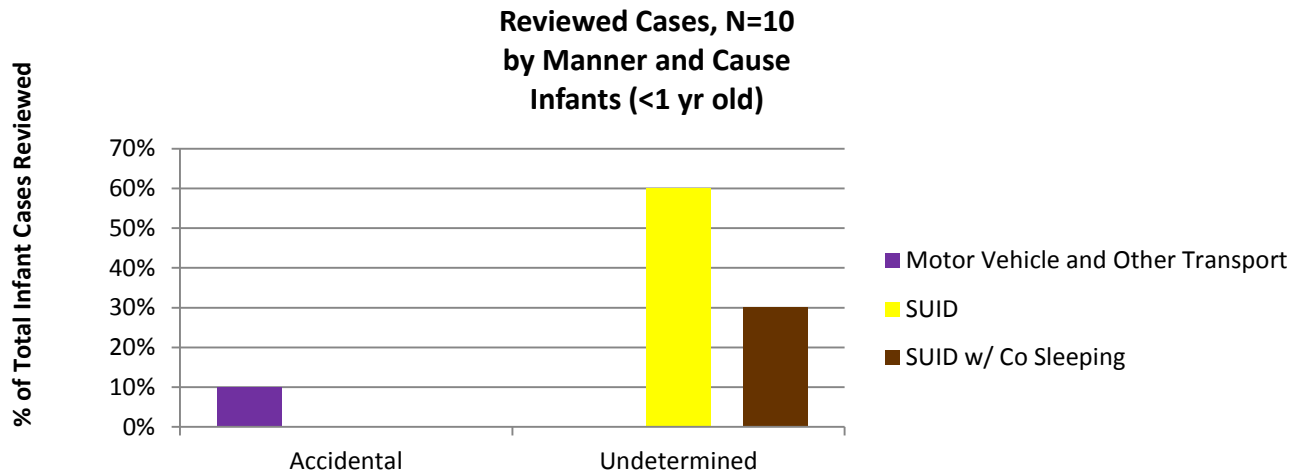
% of Total Reviewed Cases Determined Preventable	100%
% of Total Reviewed Cases Related to the Sleep Environment	100%

Reviewed Cases, N=12 by Manner and Cause 1 - 17 yr olds

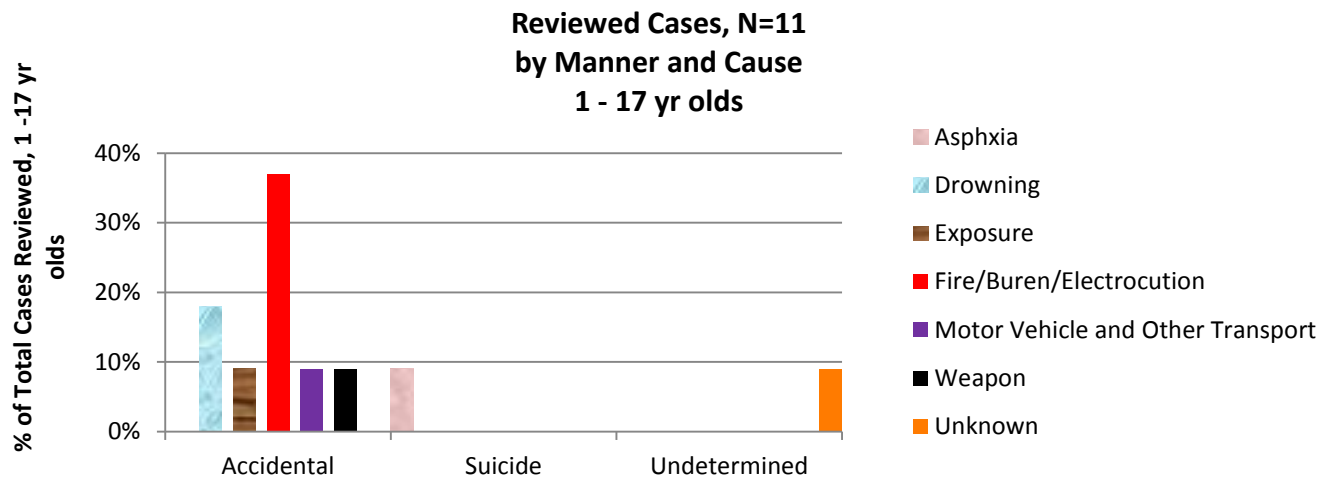


% Total Reviewed Cases Determined Preventable	92%
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Northwest AR ICDR Team Summary	
	Counties Covered:
	Benton and Washington



% of Total Reviewed Cases Determined Preventable	90%
% of Total Reviewed Cases Related to the Sleep Environment	90%



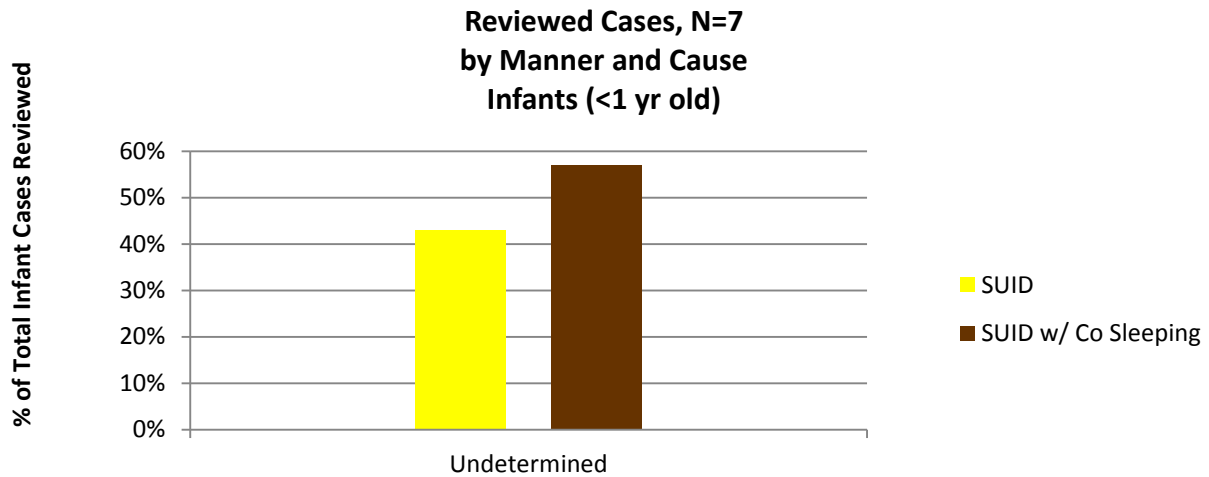
% of Total Reviewed Cases Determined Preventable	73%
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Ozark Mountain ICDR Team Summary

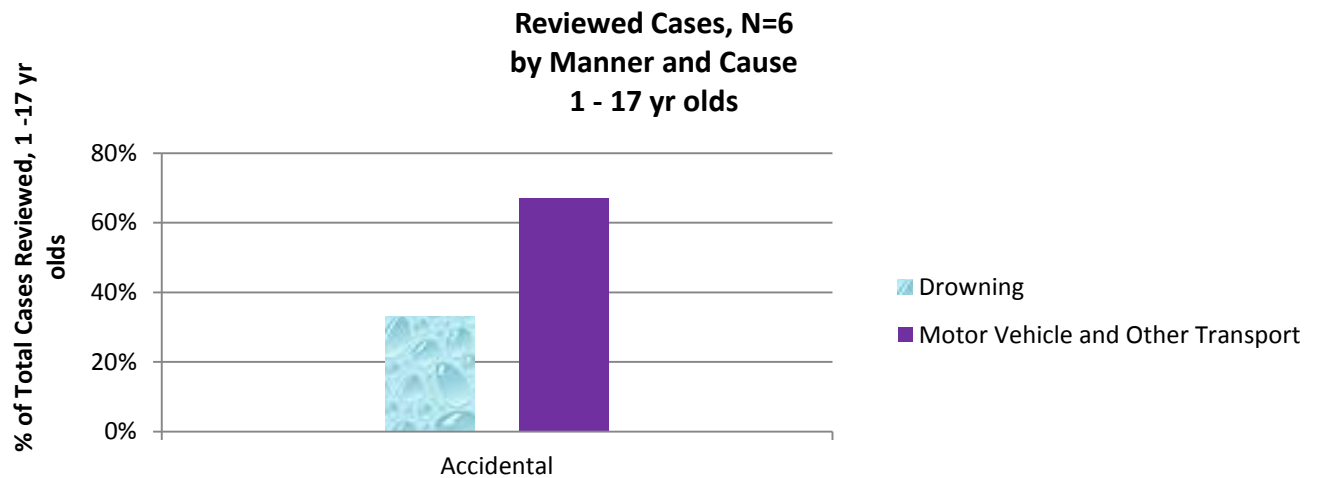


Counties Covered:


Baxter, Boone, Carroll, Madison, Marion, Newton and Searcy

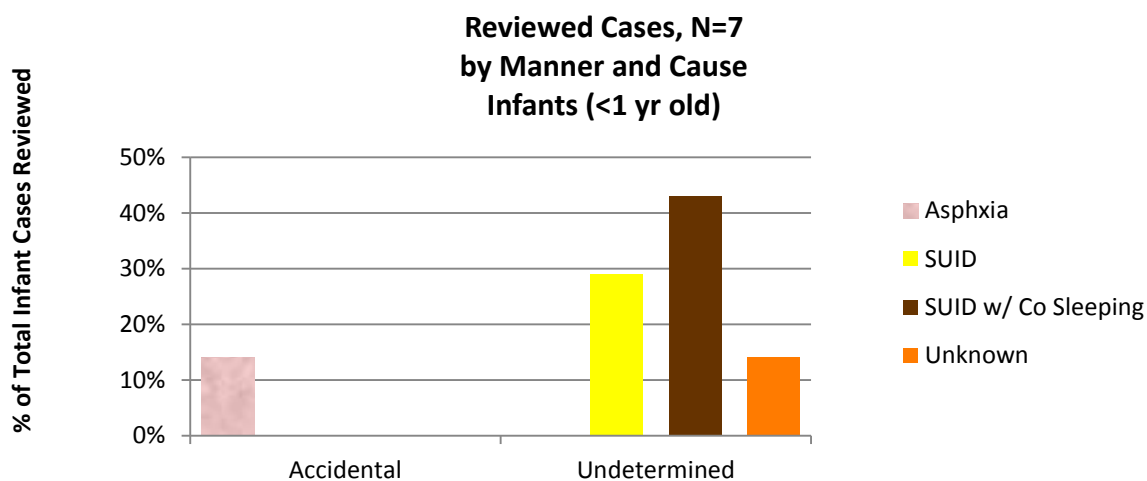


% of Total Reviewed Cases Determined Preventable	100%
% of Total Reviewed Cases Related to the Sleep Environment	100%

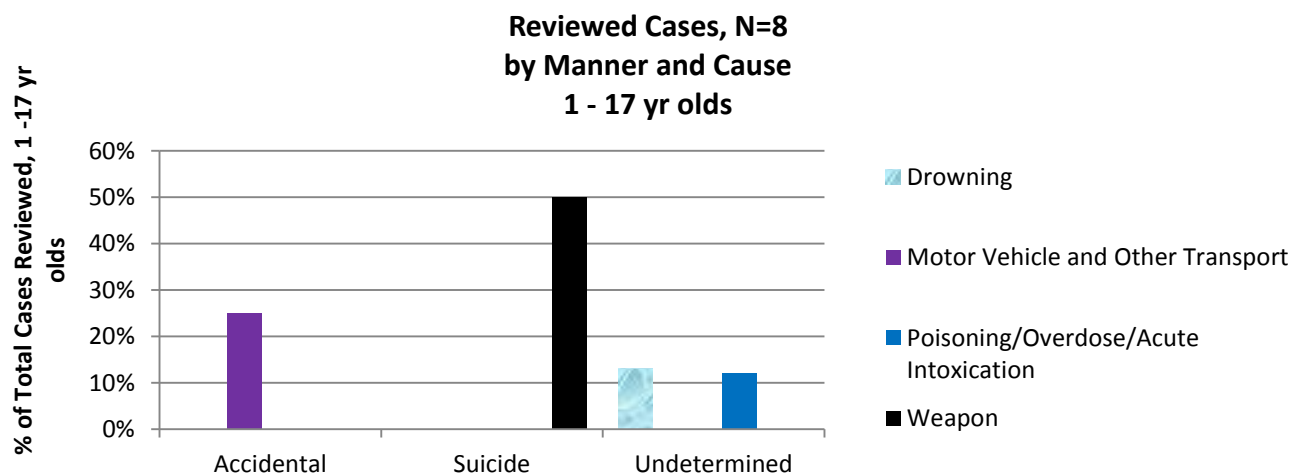


% of Total Reviewed Cases Determined Preventable	83%
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Pulaski County ICDR Team Summary	
	Counties Covered:
	Pulaski

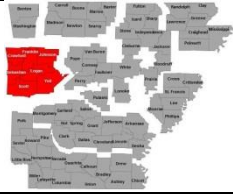


% of Total Reviewed Cases Determined Preventable	71%
% of Total Reviewed Cases Related to the Sleep Environment	86%



% of Total Reviewed Cases Determined Preventable	100%
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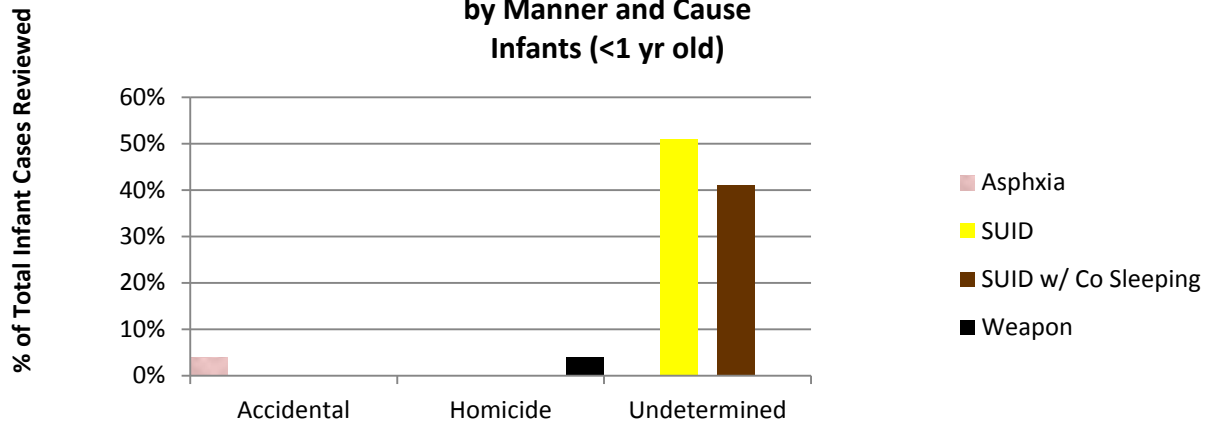
River Valley ICDR Team Summary



Counties Covered:

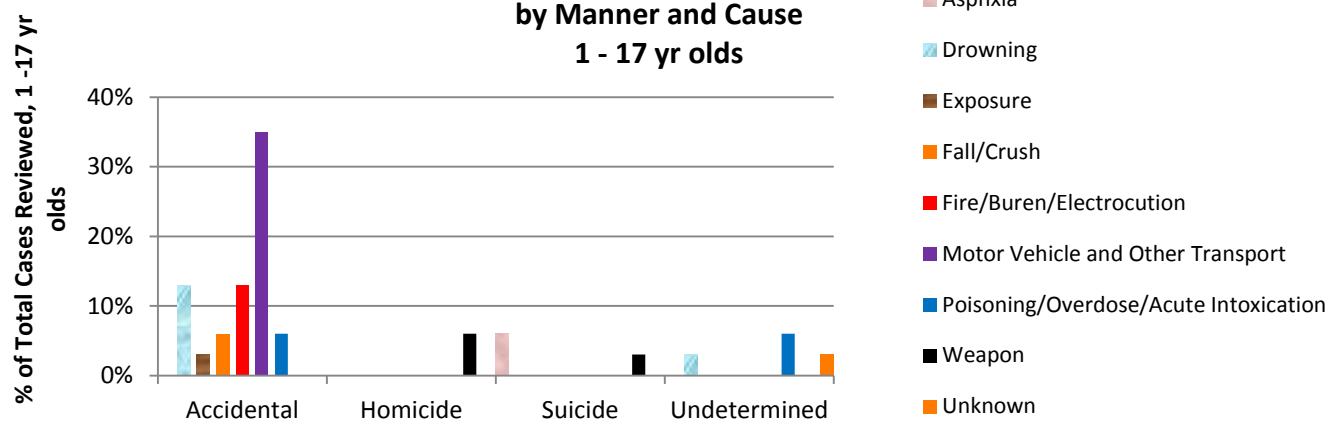
Crawford, Franklin, Johnson, Logan, Scott, Sebastian
and Yell

Reviewed Cases, N=29 by Manner and Cause Infants (<1 yr old)



% of Total Reviewed Cases Determined Preventable	86%
% of Total Reviewed Cases Related to the Sleep Environment	90%

Reviewed Cases, N=31 by Manner and Cause 1 - 17 yr olds



% of Total Reviewed Cases Determined Preventable	87%
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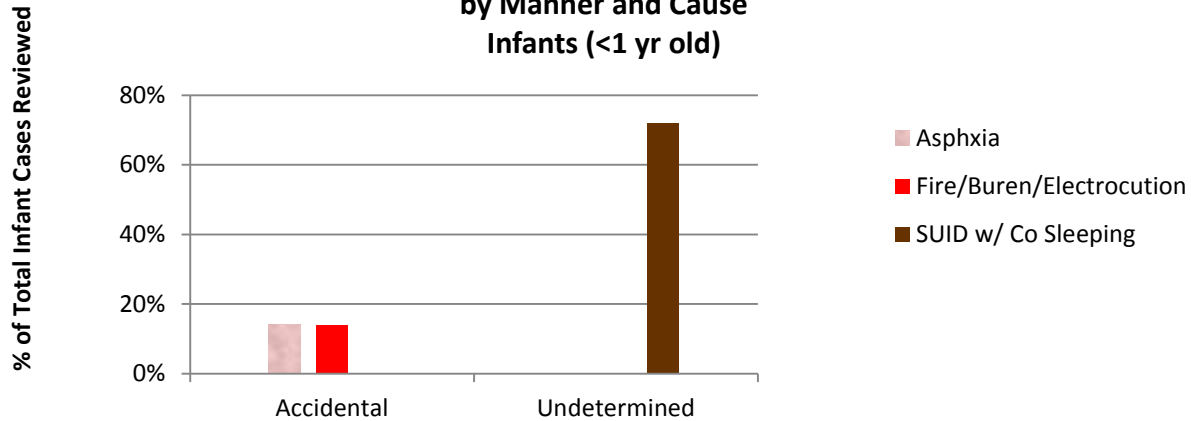
South Central ICDR Team Summary



Counties Covered:

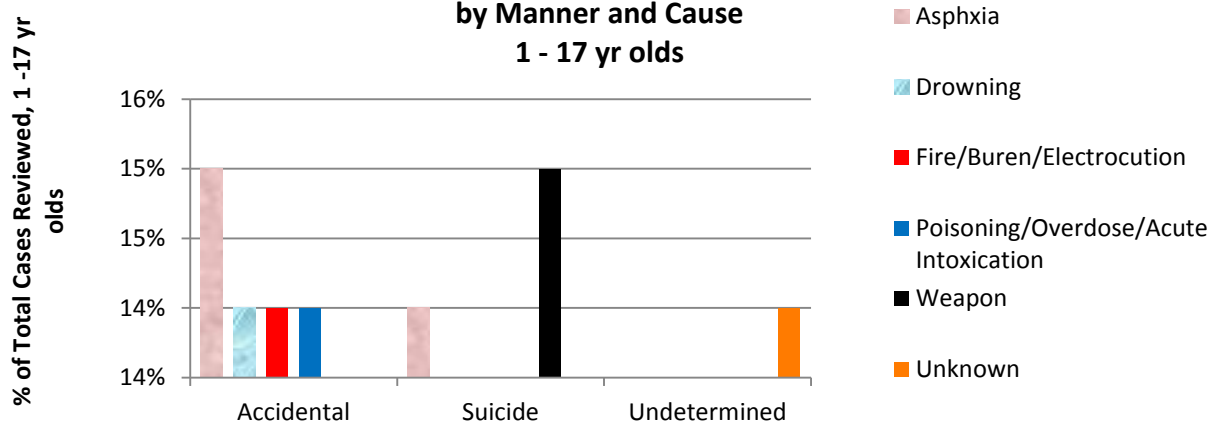
Arkansas, Clark, Cleveland, Dallas, Desha, Garland, Grant, Hot Spring, Jefferson, Lincoln, Montgomery and Saline

Reviewed Cases, N=7 by Manner and Cause Infants (<1 yr old)



% of Total Reviewed Cases Determined Preventable	100%
% of Total Reviewed Cases Related to the Sleep Environment	86%

Reviewed Cases, N=7 by Manner and Cause 1 - 17 yr olds



% of Total Reviewed Cases Determined Preventable	100%
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Cumulative Program Data

Of the total reviewed infant deaths, 84% listed undetermined as the manner of death (Figure 5). Many of these undetermined deaths are Sudden Unexplained Infant Deaths (Figure 6). Of the cases reviewed for the 1 – 17 year old age group, 70% were accidental (Figure 5), with motor vehicle collisions (MVC) and other transport being the number one cause of death (Figure 6).

Figure 5

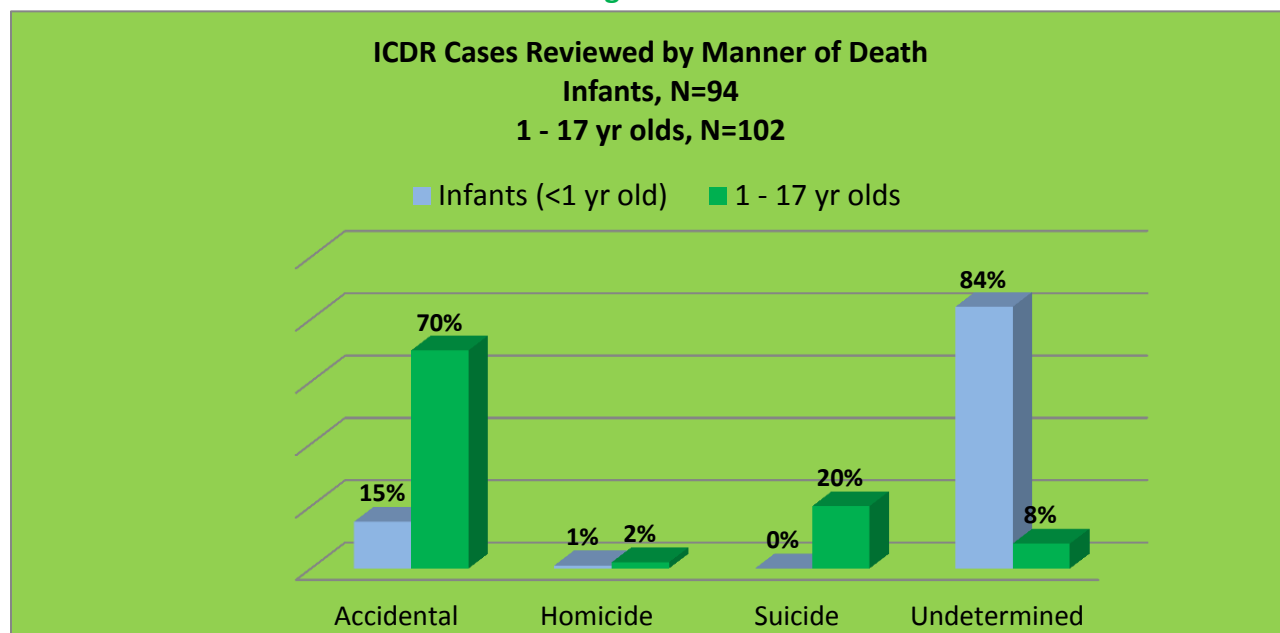
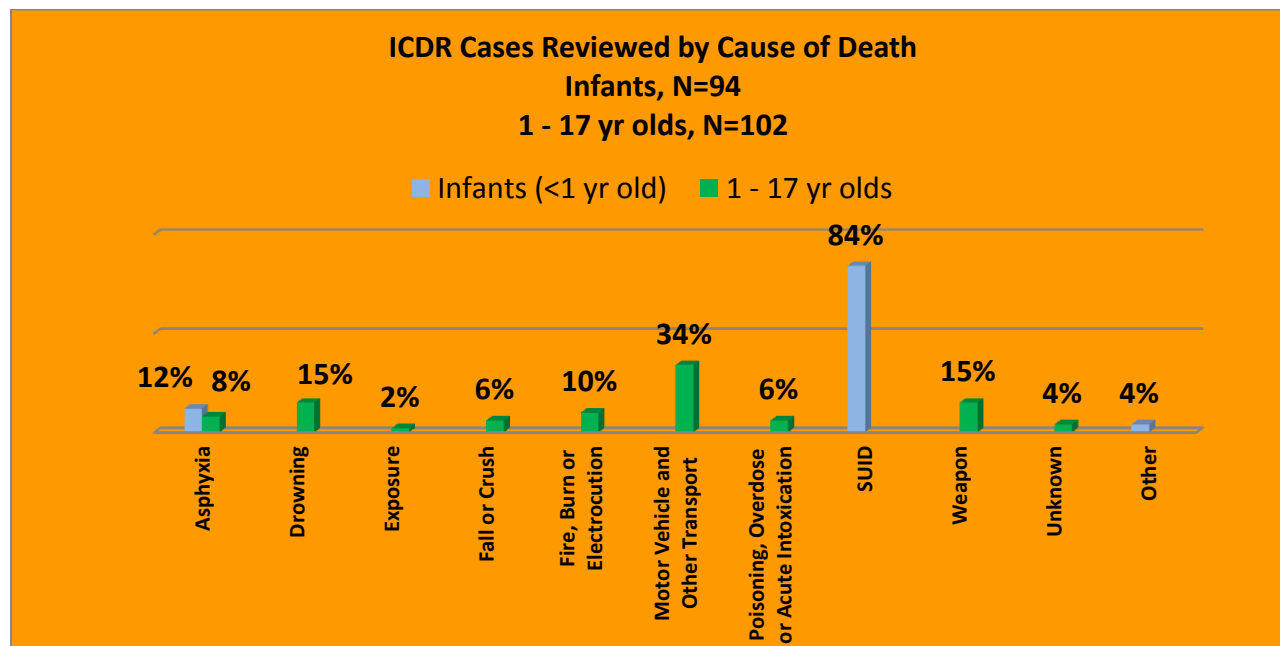
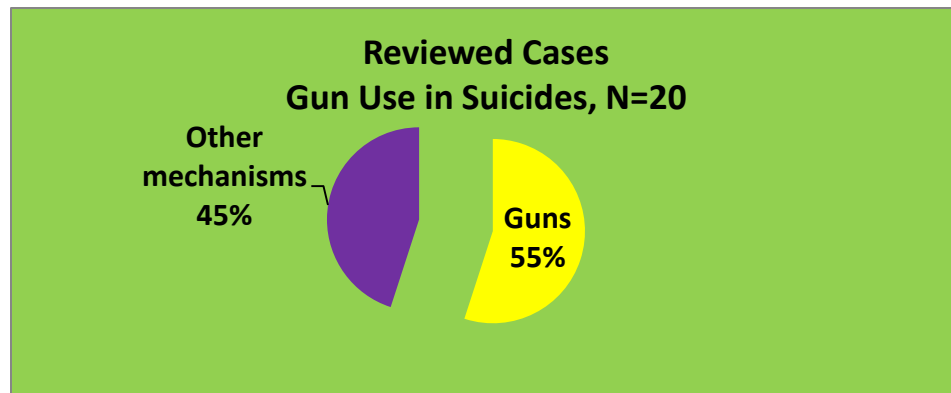


Figure 6



It was noted that 20% of the reviewed cases for the 1 – 17 year old age group were suicides (Figure 5). A firearm was used in 55% of those suicides (Figure 7).

Figure 7



Additional Review Findings

Sleep-Related Deaths of Infants

Of the total number of cases reviewed by ICDR teams, 48% were infants (Figure 3). SUID was the leading cause of death for that age group (Figure 6). From the review of these SUID deaths, 62% listed an inappropriate or unsafe sleep environment, while co-sleeping was listed as a contributory factor in 47% of the reviewed cases.

The American Academy of Pediatrics (AAP) has formalized safe sleep recommendations including (but not limited to):

- ❖ Always place your baby on his/her back for every sleep time.
- ❖ Always use a firm sleep surface. Car seats and other sitting devices are not recommended for routine sleep.
- ❖ The baby should sleep in the same room as the parents, **but not in the same bed** (room-sharing without bed-sharing).
- ❖ Keep soft objects or loose bedding out of the crib. This includes pillows, blankets and bumper pads.
- ❖ For the complete list visit <http://www.aap.org/en-us/about-the-aap/aap-press-room/Pages/AAP-Expands-Guidelines-for-Infant-Sleep-Safety-and-SIDS-Risk-Reduction.aspx#sthash.mGDTsRqm.dpuf>.

An inappropriate or unsafe sleep environment could include an infant's sleep position (side or stomach), sleep location (adult beds, recliners, couches, swings, car seats, etc.) and other environmental factors (items in the crib or sleep area, room temperature, etc.). Co-sleeping refers to an infant sleeping on the same sleep surface with an adult(s), other children or pets. Table 1 shows the percentage of reviewed

cases of infant deaths by sleep position.

Table 1

Sleep Related Environmental Factors Identified (sleep position), N=71	
Placed on stomach/side	47%
Placed on back	45%
Position unknown	8%

Based on the cases reviewed by the local review teams, SUID peaks between 29 days and 3 months (Table 2).

Table 2

SUID Deaths by Age Group, N=79	
Age	% of SUID Deaths
0 – 28 days	5%
29 days – 3 months	67%
4 – 6 months	15%
7 – 9 months	10%
10 – 12 months	3%

Demographic of Parents

Of the cases reviewed for both infants and the 1 – 17 year old age group, the average age of the biological mother was 26 years old and the average age of the biological father was 29 years old (note that not all cases list parent's age).

Omission/Commission

Identification of acts of omission and commission helps connect human behavior to the death. An omission is a failure to act (i.e., lack of supervision or co-sleeping with an infant) and a commission is a direct act (i.e. abusive head trauma or suicide). Table 3 lists the percentages of total cases reviewed that were identified as having an act of omission or commission that contributed to the child's death.

Table 3

Acts of Omission/Commission Listed for Reviewed Cases by Age Group		
	Infants N=94	1 -17 year olds N=102
Yes	76%	66%
No	5%	14%
Probable	1%	8%
Unknown	7%	3%
No Response	11%	9%

Direct/Indirect Factors in Death

A direct cause is an action that was necessary and sufficient to have caused the death (i.e. ATV collision or use of a gun); whereas an indirect cause is an action that was necessary, however, not sufficient to have caused the death (i.e. lack of safety equipment such as helmets or life jackets). Table 4 shows the percent of reviewed cases in which direct or indirect causes were identified that lead to a child death, by age group.

Table 4

Direct/Indirect Causes that lead to a Child Death Listed by Age Group	
Infants, N=94	1 – 17 year olds, N=102
Direct Cause: 13%	Direct Cause: 30%
Indirect Cause: 67%	Indirect Cause: 51%
*** direct and indirect percentages are independent variables and do not equal 100% ***	

Preventability

After cases are reviewed, teams decide if the death could have been prevented. Recommendations for improved services, education, policies, prevention education and other interventions are based on this assessment. Table 5 shows that 87% of the infant cases reviewed were determined to have been preventable; while 80% of the cases reviewed for 1 – 17 year olds were determined preventable (Note: prior to implementing a new data entry process in 2013, this question was left unanswered for 9 cases).

Table 5

Reviewed Cases Determined Preventable listed by Age Group		
	Infants N=94	1 – 17 year olds N=102
Determined Preventable	87%	80%
Determined Not Preventable	4%	8%
Team Could Not Determine	6%	6%
No answer	3%	6%

ICDR Team Recommendations and Activities

The ICDR Program's ultimate goal is to generate local action to prevent future deaths. Local ICDR teams help accomplish this goal through the identification of risks factors and recommending educational activities, agency improvements, environmental factors that can be modified and suggesting legislation. Listed are some of the recommendations, accomplishments and other important activities from the ICDR Program and local team members for the year.

Team Recommendations for Prevention of Sleep-Related Infant Deaths

Deaths related to the sleep environment are the overall number one cause of death to children in Arkansas. Listed are local team recommendations related to the prevention of sleep related deaths:

- ❖ Safe sleep education should be administered during prenatal visits, to group homes and shelters, at WIC appointments or other related programs that are relevant to new mothers.
- ❖ All infant deaths need to be reported to the CACD hotline.
- ❖ County Coroners should be required to be trained in the assessment and documentation of SUIDI cases.
- ❖ Alcohol/drug screening should be mandated for caregivers at the time of an infant death.
- ❖ Consistent safe sleep media campaigns are needed targeting families with infants.
- ❖ Hospitals and clinics should train staff to advocate for safe sleep practices.
- ❖ Safe sleep education should be required and documented for all parents prior to hospital discharge with infants.
- ❖ A mechanism to educate unlicensed baby sitters on safe sleep should be established.
- ❖ Safe sleep videos should be made available in hospital in clinic waiting rooms, along with other prevention videos.
- ❖ Autopsies should have Unsafe Sleep Environment as a cause of death.
- ❖ Insurance companies should give discounts on premiums or co pays for visits to families with

documented safe sleep education.

- ❖ Sale of recalled infant products should be banned, including at consignment or thrift stores.
- ❖ High schools should provide safe sleep education to teen parents and students that have infant siblings.
- ❖ Focused training for male caregivers about safe sleep for infants should be developed and disseminated.
- ❖ DCFS should require regular parenting classes with safe sleep training for all parents that have an infant covered by Garrett's Law.

Other Team Recommendations

For children ages 1 – 17, teams have made recommendations based on the leading causes of death reviewed this year, including drowning, suicide, ATV's and motor vehicles.

- ❖ Water alarms should be required for homes with a pool if there are small children in the home.
- ❖ Water safety equipment (i.e. lifejackets, buoys, hooks, etc.) should be available and required at all open bodies of water that are available for public swimming.
- ❖ Warning signs of potential dangers should be visible at all bodies of water where public swimming is allowed.
- ❖ Social workers and case managers at all levels should be educated periodically on local drug take back programs.
- ❖ Suicide prevention education should be available to all staff and students at local schools, which would include gun safety education.
- ❖ Passenger safety education needs to be available and administered more consistently in rural areas, with a concentration on areas of high traffic and potential dangers.
- ❖ ATV safety education should be available and disbursed at all ATV retailers.

Local Team Activities in 2015

- ❖ AIM
 - The AIM program director, Kaye Murry, also co-chairs the AR Safe Sleep CoIN Group. The AR Safe Sleep CoIN has worked with ICDR to complete a survey of the birthing hospitals in AR to determine which hospitals have safe sleep policies in place. Those that do not have safe sleep policies will be educated and provided with policy and program templates to implement within their facilities.
 - The AR Department of Health has strengthened its prenatal class curriculum to include safe sleep messages, with an emphasis on co-sleeping and the sleep environment.
- ❖ Central AR
 - The Central AR ICDR Team shared information with the UAMS Neonatal Intensive Care Unit related to the risk of co-sleeping twins. This resulted from a review of a SUID case with co-sleeping twins.
 - The Central ICDR Team has reached out to the ACH Injury Prevention Center and obtained and distributed injury prevention handouts and toolkits to local schools.

❖ Ozark Mountain

- The Ozark Mountain ICDR Team received a \$2000 mini grant from the AR SIDS Outreach Program to educate teen mothers in the Boone County area on Safe Sleep.
- Harrison City Council approved signs to be placed at Crooked Creek warning of dangerous water. This was a direct result of a team recommendation following the review of a case that occurred in this location.
- The Ozark Mountain ICDR Team recently submitted an application for a small grant provided by the CJ foundation for SIDS to support programs and partnerships with local mental health providers to assist in providing support for those who have experienced a child death.

❖ South Central

- Members of the South Central ICDR Team participated in a Walk-a-thon held in Benton, AR to raise awareness of Sudden Unexplained Death in Children.
- Kevin Cleghorn, director of the South Central ICDR Team, presented suicide prevention education to 120 students at Bryant High School.

ICDR Program Educational and Other Activities in 2015

In addition to coordinating regional ICDR teams and meetings, the ICDR program staff engages with the media on topic specific prevention messaging, educates other organizations vital to quality reviews and participates in continuing education to assure best practices are utilized by the ICDR Program.

Media

- ❖ March 17th, news release summarizing 2014 Annual Report findings
- ❖ March 22nd, editorial in the Arkansas Democrat-Gazette titled: Action Must Be Taken to Prevent Child Deaths
- ❖ April 19th, extended interview with KATV about the Infant and Child Death Review Program's Annual Report and infant safety.
- ❖ June 15th, press release on Pediatric Drowning
- ❖ Sept. 17, press release on ATV Safety

Publications

- ❖ Tabor, Pamela and Ragan, Krista. *Infant Death Scene Investigation*: Journal of Forensic Nursing, Jan. /March 2015-Vol 11 – Issue 1 – p. 22 – 27. Approved for Continuing Education Credits.
- ❖ Tabor, Pamela and Bobbi Jo McNeil (2015). Chapter 3, *Death Investigations*, in the Core Curriculum for Forensic Nurses.

Trainings Presented

- ❖ January 28th- White County Sheriff's Department hosted a training on differentiating between SIDS, Sudden Unexplained Infant Death (SUID) and infanticide; prevention of SUID; and abusive head trauma. Professionals attending included coroners, law enforcement, medical personnel and attorneys.
- ❖ April 9-10th-ICDR core team members attended training in Little Rock. The training focused on enhancing team members' abilities to conduct in-depth case reviews, writing targeted recommendations, developing an elevator speech, discussing individual teams' strengths and areas for improvement , along with team building activities.
- ❖ April 17th-The Craighead ICDT Team, led by Mary Medlock, received a mini grant from the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) to host an Arkansas SIDS Outreach Project training. Forty-five medical professionals learned the differences between SUID and SIDS and how to help patients implement safe sleep practices.
- ❖ April 23-24th- Sudden Unexplained Infant Death Investigation (SUIDI) Training was held in Little Rock. There were 26 attendees, bringing the total number of individuals trained to 132 attendees from 36 counties. This year's SUIDI training initiated the use of standardized patients (actors) to play the role of the parents in the doll re-enactment to increase the reality of the scenarios for the participants.
- ❖ June 4th - Southeast Coalition on Child Fatality Review, Vicarious Traumatization, presentation by Dr. Pamela Tabor.
- ❖ October 13th & 14th, Sudden Unexplained Infant Death Investigation (SUIDI) Training was held in Little Rock for the Crimes Against Children Division (CACD) of the AR State Police, pursuant to Senate Bill 786: An Act to Amend the Law Concerning the Report of a Death of a Child; And for Other Purposes.
- ❖ November 5th, Vicarious Trauma Webinar, presented by Dr. Pamela Tabor to the Tennessee Child Death Review Program.

Educational Activities for ICDR Staff

- ❖ Southeast Coalition on Child Fatality Review Annual Retreat, June 3rd – 5th, Nashville, TN, attended by Martin Maize and Dr. Pamela Tabor.
- ❖ American Board of Medicolegal Death Investigators, July 26th – 31st, 40 hour Death Investigation Course, completed by Dr. Pamela Tabor.

- ❖ National Association of Coroners and Medical Examiners Annual Conference, August 26th – 31st, attended by Dr. Pamela Tabor.
- ❖ Child Abuse and Neglect Conference, Sept. 1st – 3rd, attended by Dr. Pamela Tabor.
- ❖ Cribs for Kids Annual Conference, Mar. 13th -17th, attended by Martin Maize.
- ❖ International Association of Forensic Nurses Annual Conference, Oct. 25th -31st, attended by Dr. Pamela Tabor.
- ❖ Texas Child Death Review Team Meeting, Dallas, TX, Oct. 8th, attended by Martin Maize.

Boards and Committees

- ❖ National Child Death Review Advisory Board, Martin Maize, committee member.
- ❖ Emergency Medical Services for Children (EMSC), Martin Maize, committee member
- ❖ AR Collaborative Improvement and Innovation Network (COLIN) to Reduce Infant Mortality, Martin Maize, committee member
- ❖ Pediatric Strangulation Workgroup, IAFN, Dr. Pamela Tabor, committee member
- ❖ National Center for the Review and Prevention of Child Deaths, vicarious Trauma, Dr. Pamela Tabor, committee chair
- ❖ International Association of forensic Nurses, Dr. Pamela Tabor, Board of Directors and named Distinguished Fellow

Moving Forward

New Teams for 2016

- ❖ The ICDR Program has recently established a new local review team that will begin reviewing cases in January, 2016. This team will review cases of unexpected death of children in Southeast Arkansas. The counties involved with this team will be the following: Ashley, Bradley, Chicot, Drew and Union.
- ❖ We plan to develop another local team in the Northeastern part of the state that will cover Cleburne, Fulton, Independence, Izard, Jackson, Prairie, Sharp, Stone, White and Woodruff Counties.

Other ICDR Activities Planned for 2016

- ❖ SUIDI Training will be provided to coroners, law enforcement and ICDR team members, March 31st – April 1st, 2016. Funding for this training will be provided by the AR commission on Child Abuse, Rape and Domestic Violence.

- ❖ The annual ICDR Team Training is scheduled to be held on April 7th & 8th, 2016 in Little Rock. Dr. Pamela Tabor, in conjunction with the national Center for the Review and Prevention of Child Deaths, is developing a vicarious trauma toolkit to be utilized by child death review teams.
- ❖ The ICDR Program would like to be able to provide seed funding to the teams so that they can begin implementing some of their team recommendations. Progressing from recommendations to implementation needs to occur in order to increase public awareness and decrease pediatric deaths. However, this is dependent on funding and/or multidisciplinary partners.
- ❖ There will be a continuation of ICDR Program presentations and trainings provided to professional groups. Additionally, there will be attendance by the ICDR program staff to relevant trainings.
- ❖ Press releases will be continued with the goal of each release to match the day, week or month of recognition for that specific issue. Examples include, but are not limited to, SIDS awareness, child abuse, drowning and ATV safety.