Alabama Child Death Review System Annual Report

Report for Completed 2006 Data

Learning from the Past to protect the Future…

DEATHS AMONG CHILDREN IN ALABAMA

ALABAMA CHILD DEATH REVIEW SYSTEM

ANNUAL REPORT - 2006 DATA

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A LETTER FROM THE STATE CHAIRMAN

September 1, 2009

The death of a child represents a tragedy for the child's family, the community, and our entire state. There have been many efforts to prevent and reduce accidental, unexpected, and unexplained child deaths. In order to improve our prevention efforts, there must be an understanding of how these deaths occur. This is the task that has been given to the Alabama Child Death Review System (ACDRS).

The Child Death Review (CDR) model began years ago with the systematic investigation of child abuse and neglect deaths and grew in scope to include other causes of death. In 1997, ACDRS was created under state law and is funded primarily by the Children First Trust Fund. ACDRS reviews the circumstances and underlying factors of all non-medical infant and child deaths in Alabama in order to identify those deaths that possibly could have been prevented. The findings of these reviews and recommendations drawn from them are reported both to state officials and agencies and to the general public. In addition to collecting and reporting data, ACDRS develops new literature and educational programs on many prevention topics, including child vehicular safety, safe infant sleeping, and youth homicide and suicide. The data and related findings are used to make recommendations about policy changes at the local and state levels.

ACDRS consists of the State Office, Local CDR Teams throughout the state, and the State CDR Team. The State Office is responsible for the coordination and efficient operation of the review process and is instrumental in implementing strategies to make the public aware of ways to prevent future infant and child deaths. The Local CDR Teams are responsible for the local in-depth analysis of cases assigned to them by the State Office and for making recommendations about how to prevent future infant and child deaths. The State CDR Team is comprised of 28 members and meets quarterly; it is a multidisciplinary team that serves as an advisory board and is the policy arm of ACDRS. Those involved with ACDRS at every level remain committed to the mission of preventing child deaths in Alabama through education and public awareness.

This report represents the data collected and analyzed related to infant and child deaths in Alabama during 2006, a year for which ACDRS reviewed a record 95 percent of all qualifying cases. It includes a five-year trend analysis that covers the years 2002 through 2006 and illustrates some of the trends that are so important to the research, awareness, and prevention efforts of ACDRS.

Sincerely,

Donald E. Williamson, M.D.
State Health Officer

Alabama Child Deaths

2002 – 2006

There were 4,342 children under the age of 18 who died in Alabama during the years 2002 through 2006. An examination of the deaths on a year-by-year basis reveals that there were 897 deaths in 2002, 823 deaths in 2003, 853 deaths in 2004, 876 deaths in 2005, and 893 deaths in 2006. This represents approximately 77 deaths per 100,000 children.

Each of these deaths is a tragedy, especially to family and friends. Each death also serves as a powerful warning that other children are at risk. To better understand how and why these children died, the Alabama Child Death Review System (ACDRS) has been empowered to: maintain statistics on child mortality; identify deaths that may be the result of abuse, neglect, or other preventable causes; and, from that information, develop and implement measures to aid in reducing the risk and incidence of future unexpected and unexplained child deaths in Alabama.

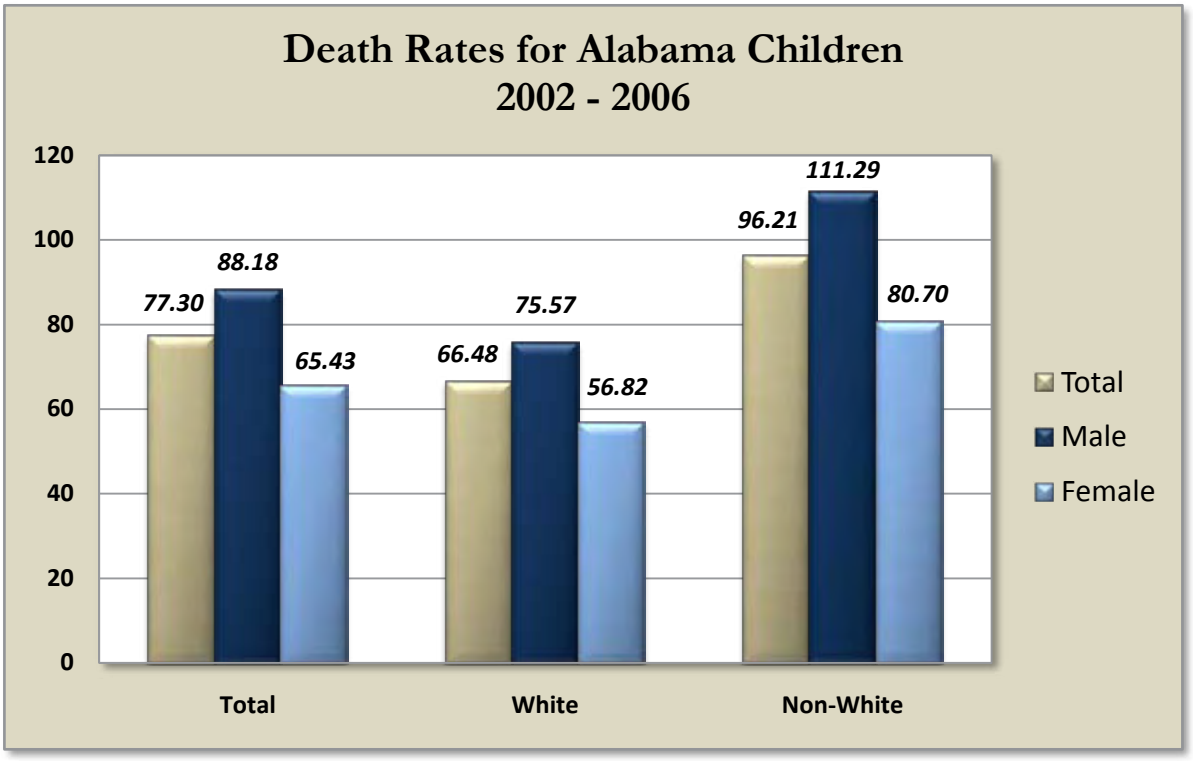
This report is a compilation of findings from Local Child Death Review Teams whose tasks are to: 1) identify factors that put a child at risk of injury or death; 2) share information among agencies that provide services to children and families or that investigate child deaths; 3) improve local investigations of unexpected/unexplained child deaths by participating agencies; 4) improve existing services and systems while identifying gaps in the community that require additional services; 5) identify trends relevant to unexpected/unexplained child deaths; and 6) educate the public about the causes of child deaths while also defining the public's role in helping to prevent such tragedies.

ACDRS was created by state law in 1997 and has now been in place long enough to compile and analyze statistics on child deaths during complete five-year periods. What follows is a look at unexpected and unexplained child deaths in Alabama during the years 2002 through 2006, as well as statistics and information about the work of ACDRS during 2006.

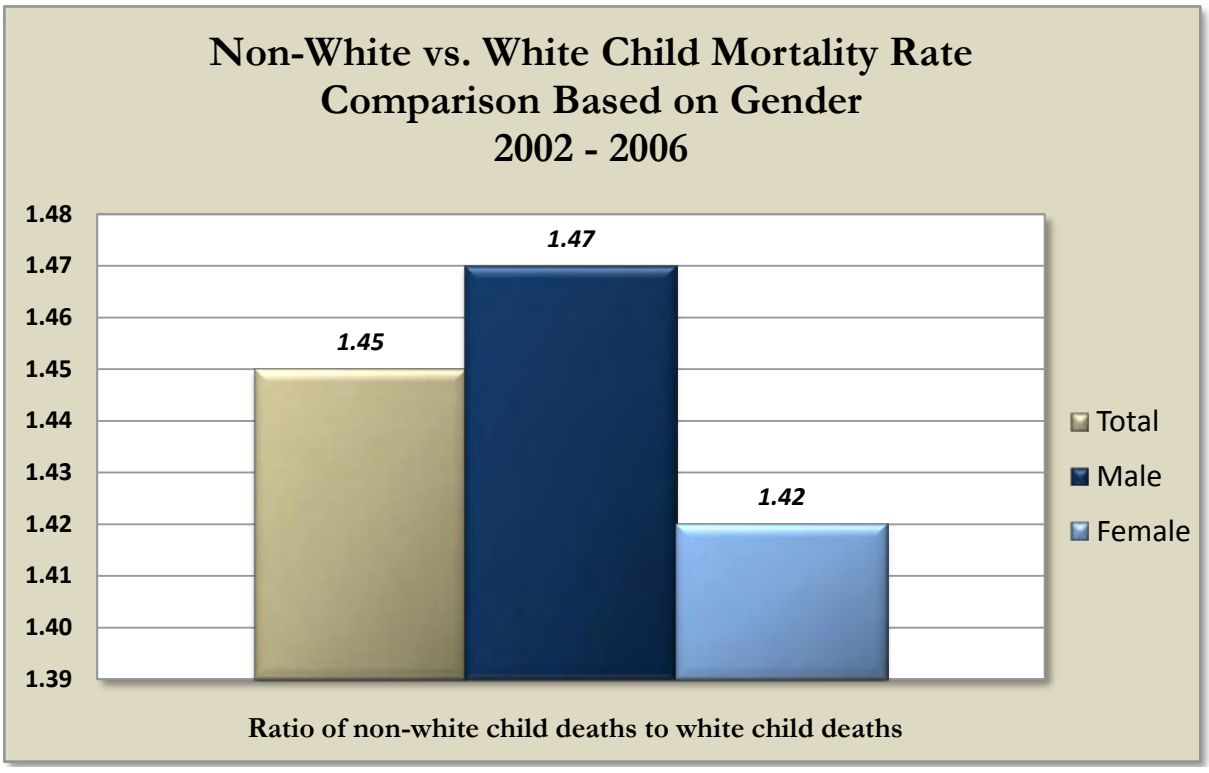
This report seeks to honor the memory of all those children who have died in Alabama. We hope that this report, and the work of the local Child Death Review Teams and the Alabama Child Death Review System, leads to a better understanding of how we can all work together to make Alabama a safer and healthier place for children.

(**Note:** Some numbers in the five-year trend section might be different from earlier reports because more data are now available.)

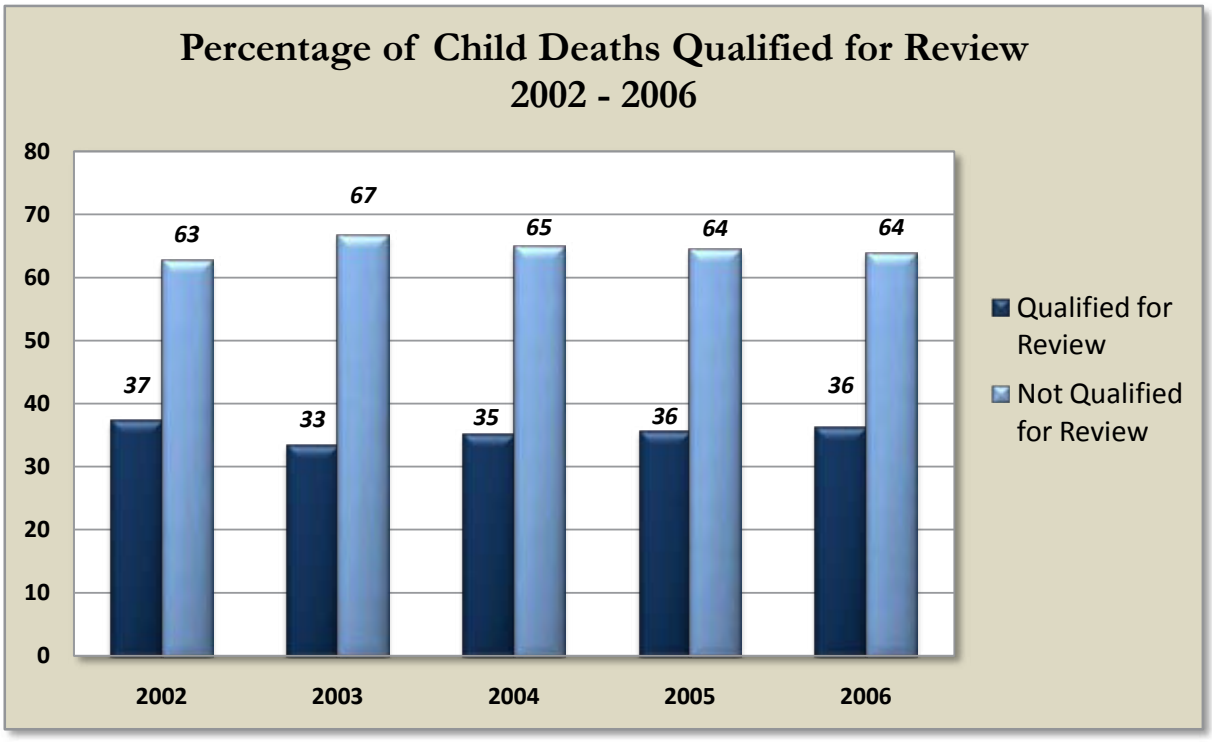
- Below is a graph showing the total race-specific and gender-specific death rates (per 100,000 children) among children in Alabama from 2002 to 2006. This allows for comparison of death rates among specific population groups.



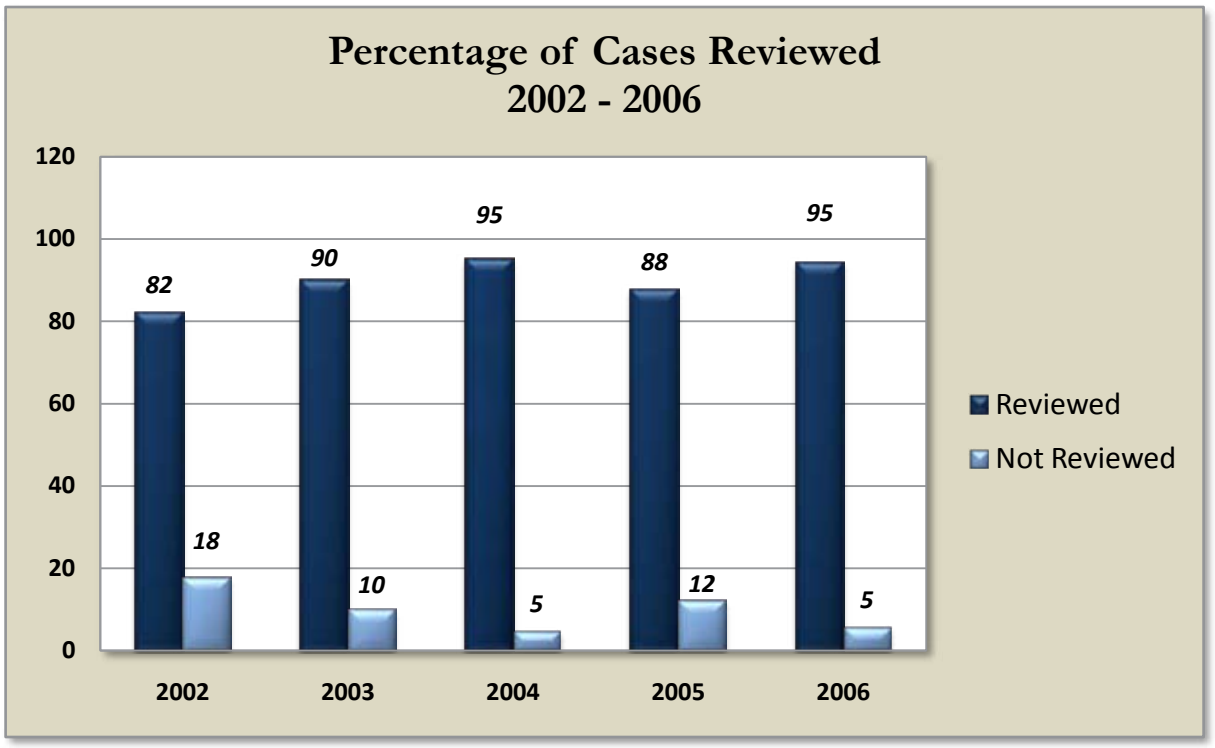
- Racial comparisons of the above rates are shown in the graph below. It should be noted that in each instance, non-whites have significantly higher mortality rates ($p < .05$) than do whites (i.e. non-white males had a child mortality rate 1.47 times greater than white males).



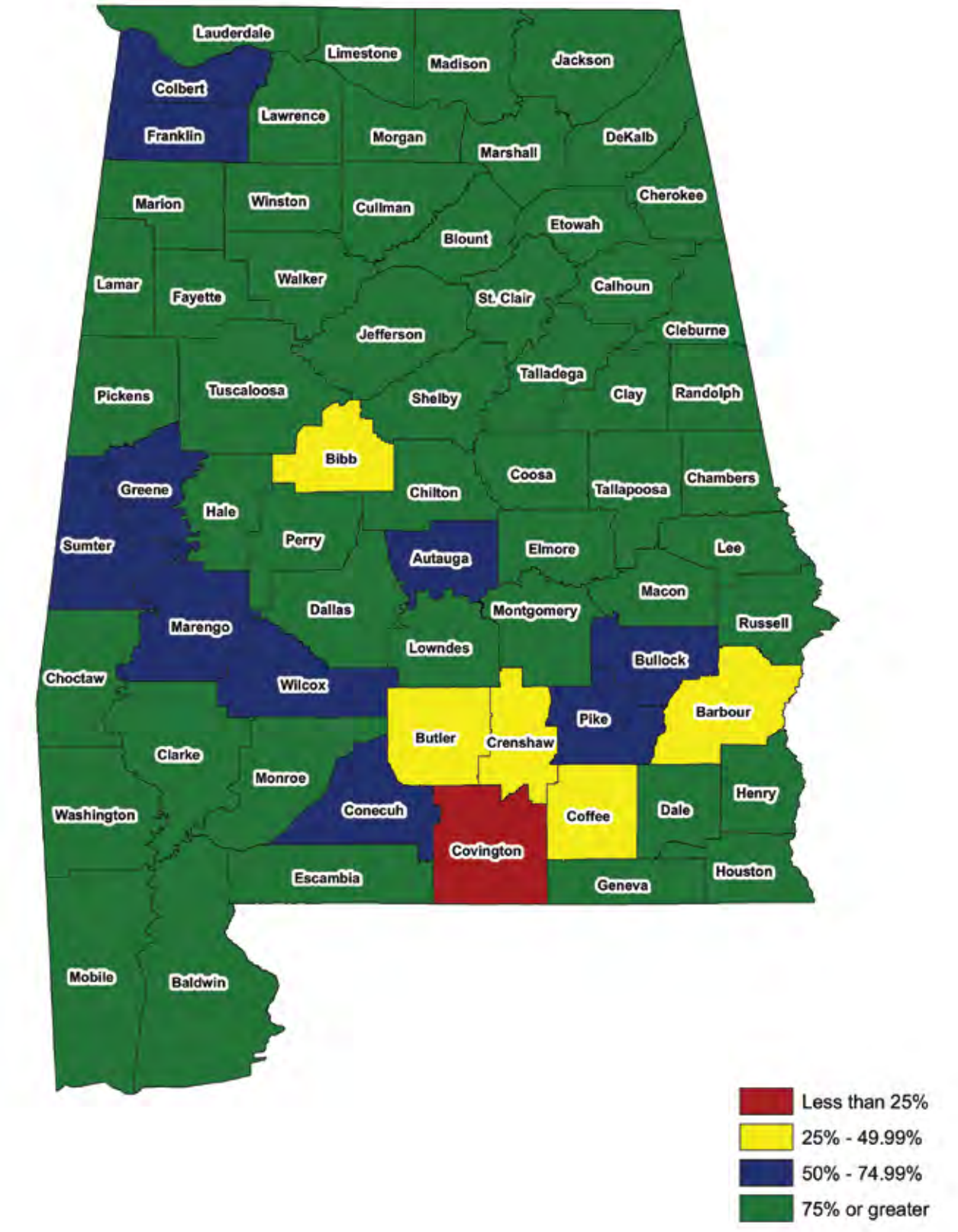
- Of the 4,342 child deaths that occurred during the years 2002 through 2006, those that qualified for review under the Alabama Child Death Review System totaled 1,544 (35.6 percent). The percentage of child deaths that have qualified for review has remained fairly constant over the five-year period.



- Of the total number of deaths that qualified for review during the years 2002 through 2006, the Local Child Death Review Teams reviewed and returned 1,387 cases (89.3 percent). The percentage of cases that qualified for review and were in fact reviewed has increased slightly over the five-year period.

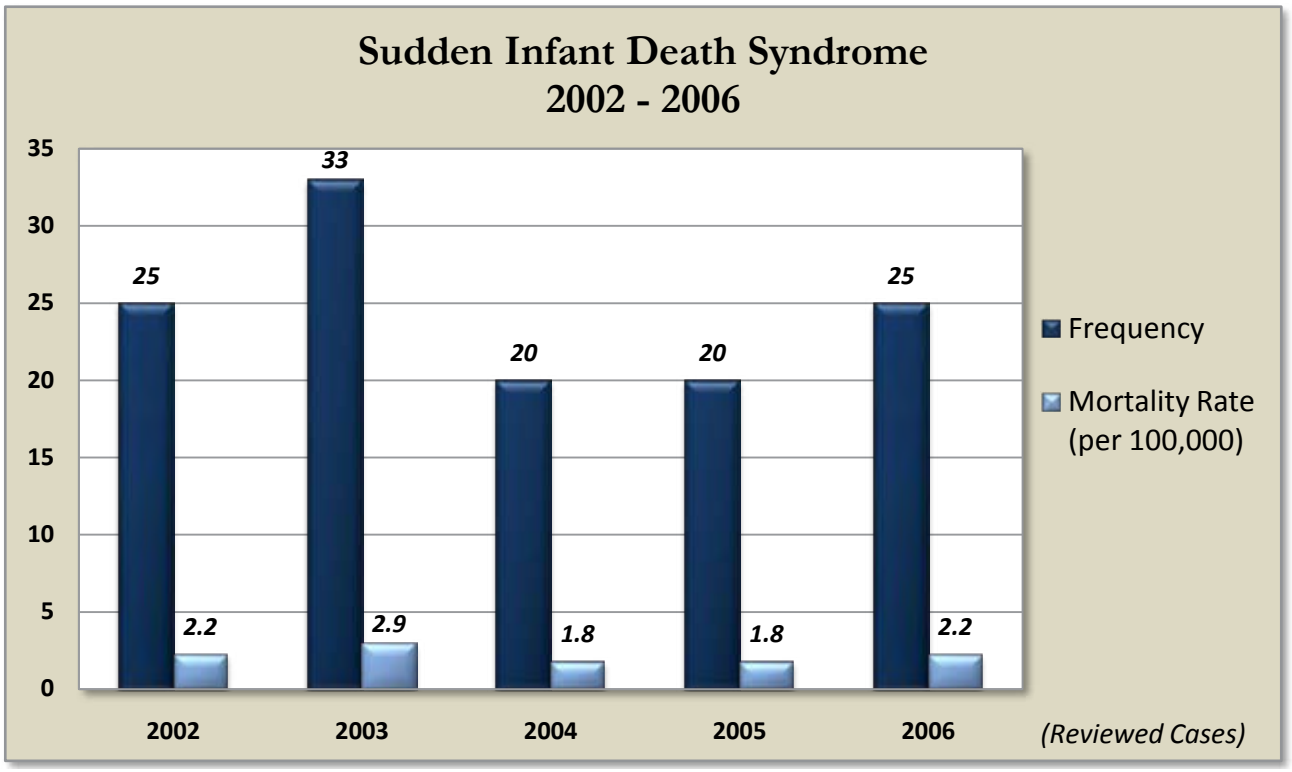


- The map below shows the case return rate of each Local Child Death Review Team for the years 2002 to 2006. While there are areas that can improve on the rate of review, all review teams should be commended for their efforts.

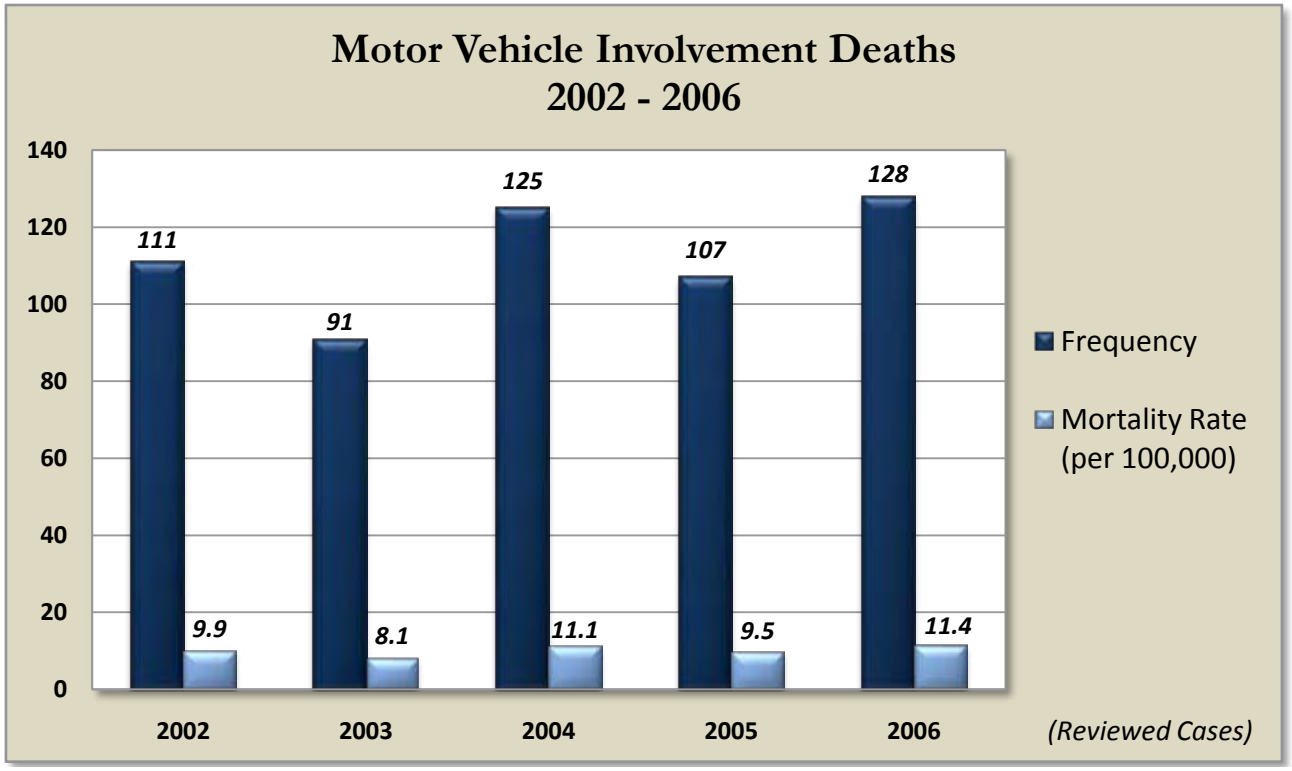


ALABAMA CHILD DEATHS

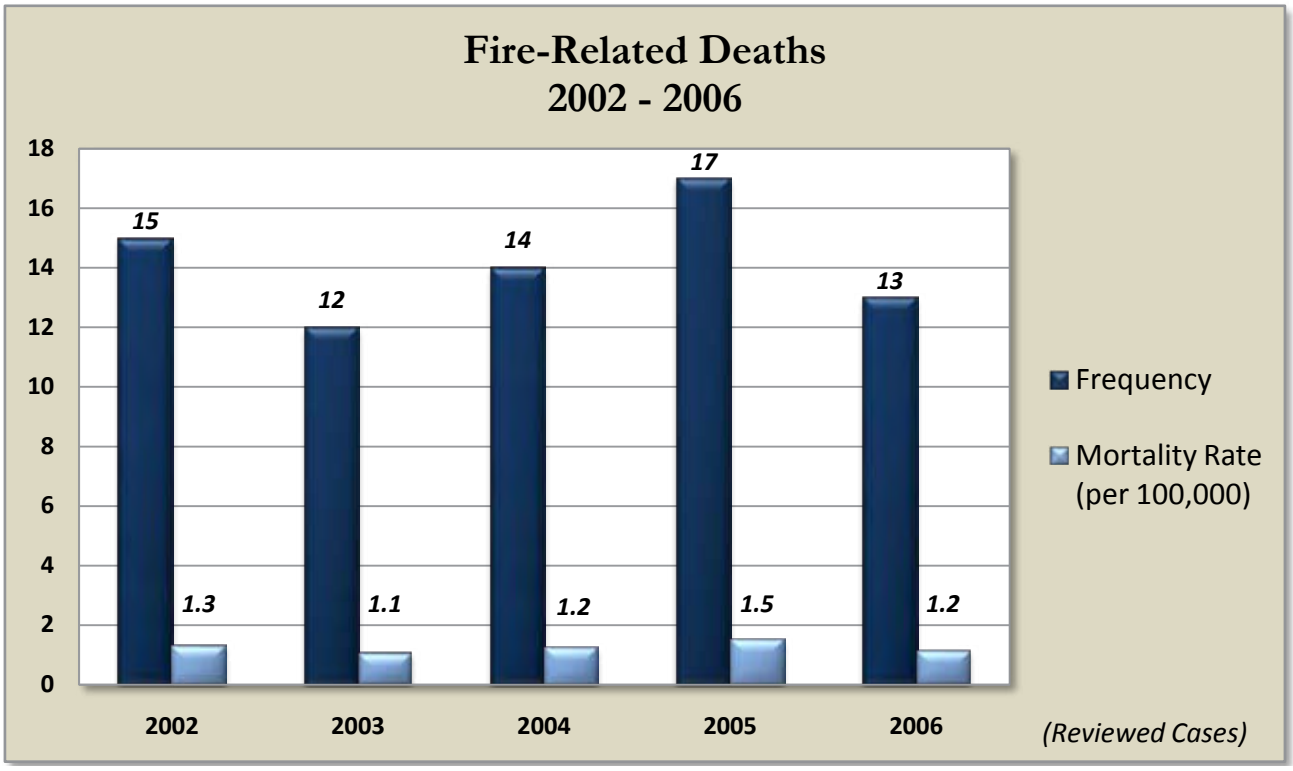
2002 – 2006



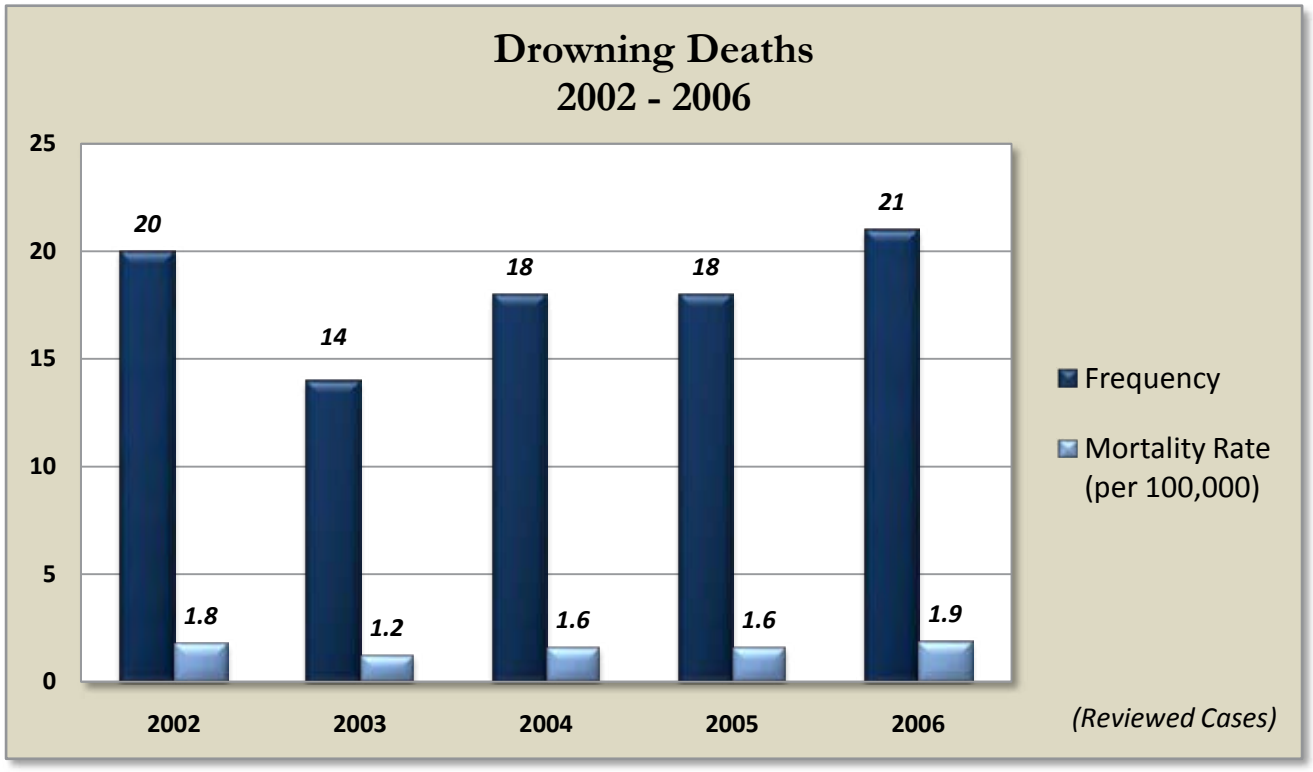
- The Sudden Infant Death Syndrome mortality rates show some variation over the five-year period.



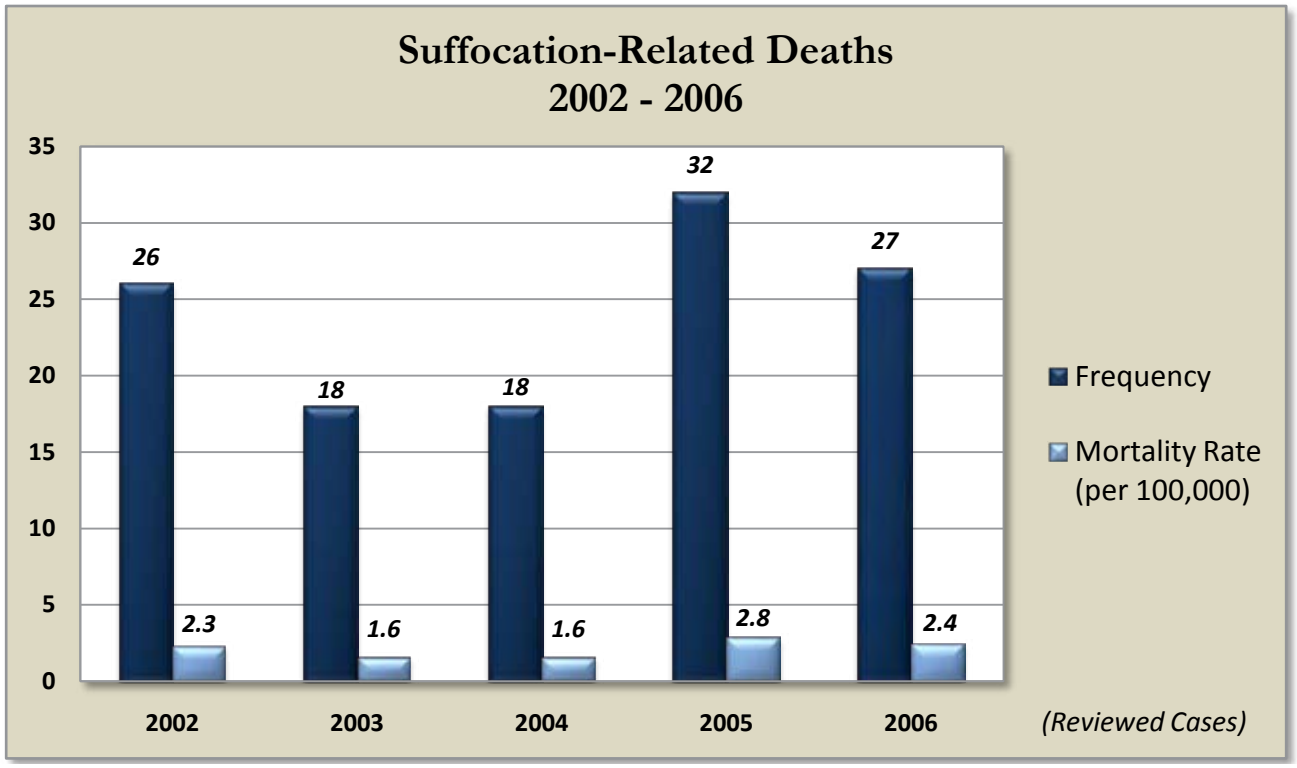
- Of the cases reviewed, the mortality rate has varied slightly over the five-year period.



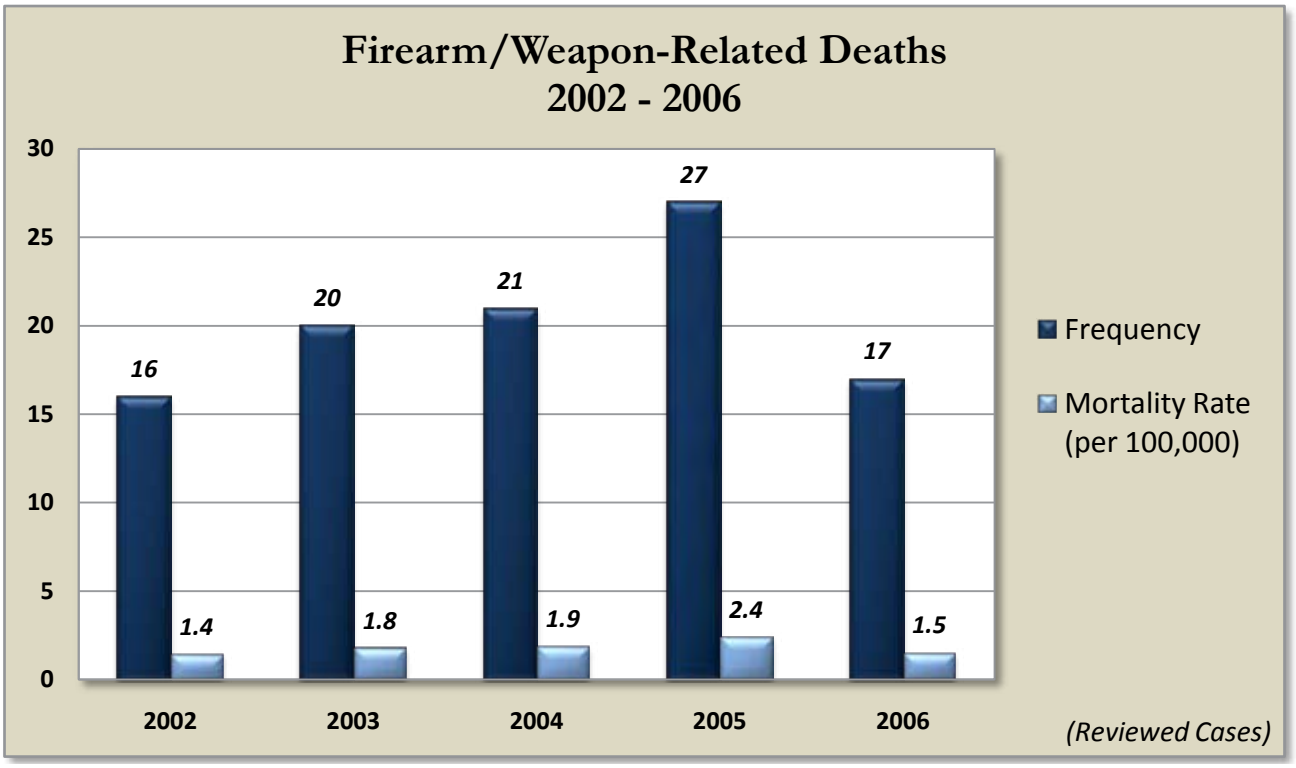
- Fire-related deaths have remained fairly constant for the five-year period.



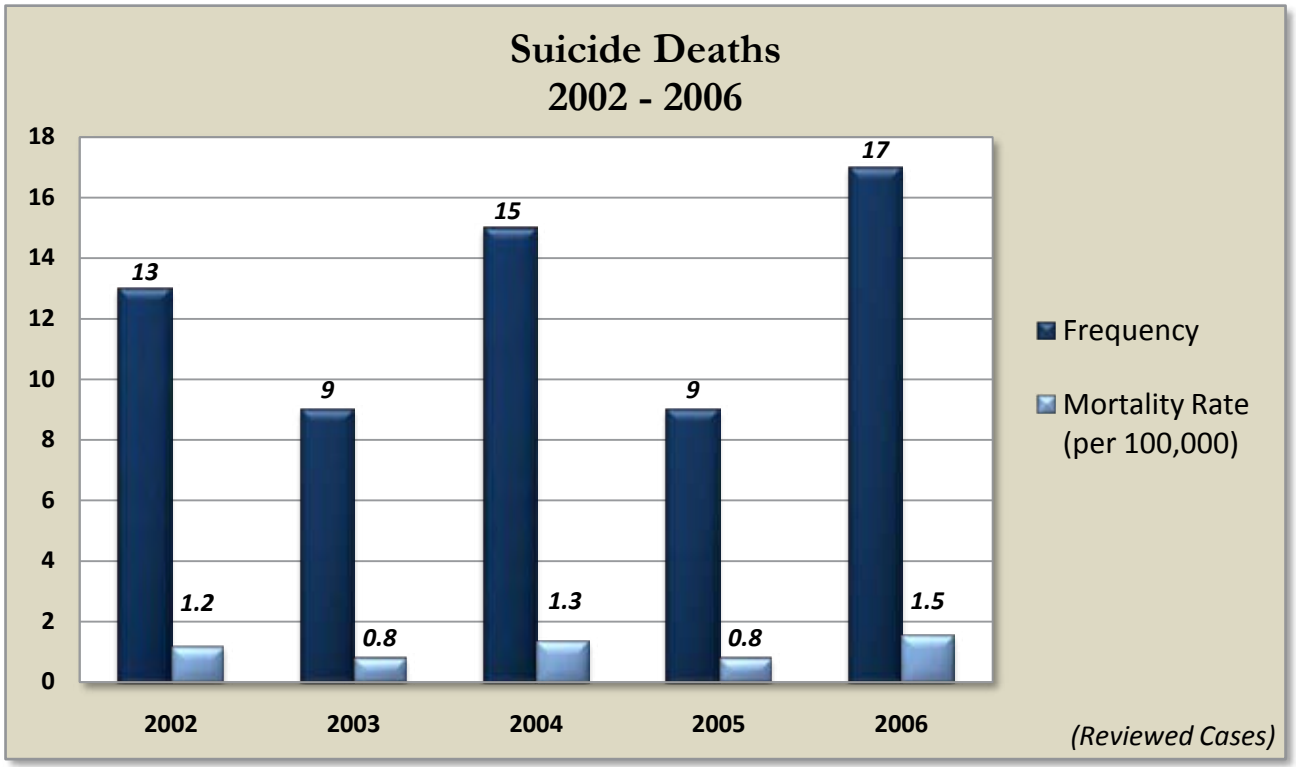
- With the exception of 2003, death rates due to drowning have been fairly constant.



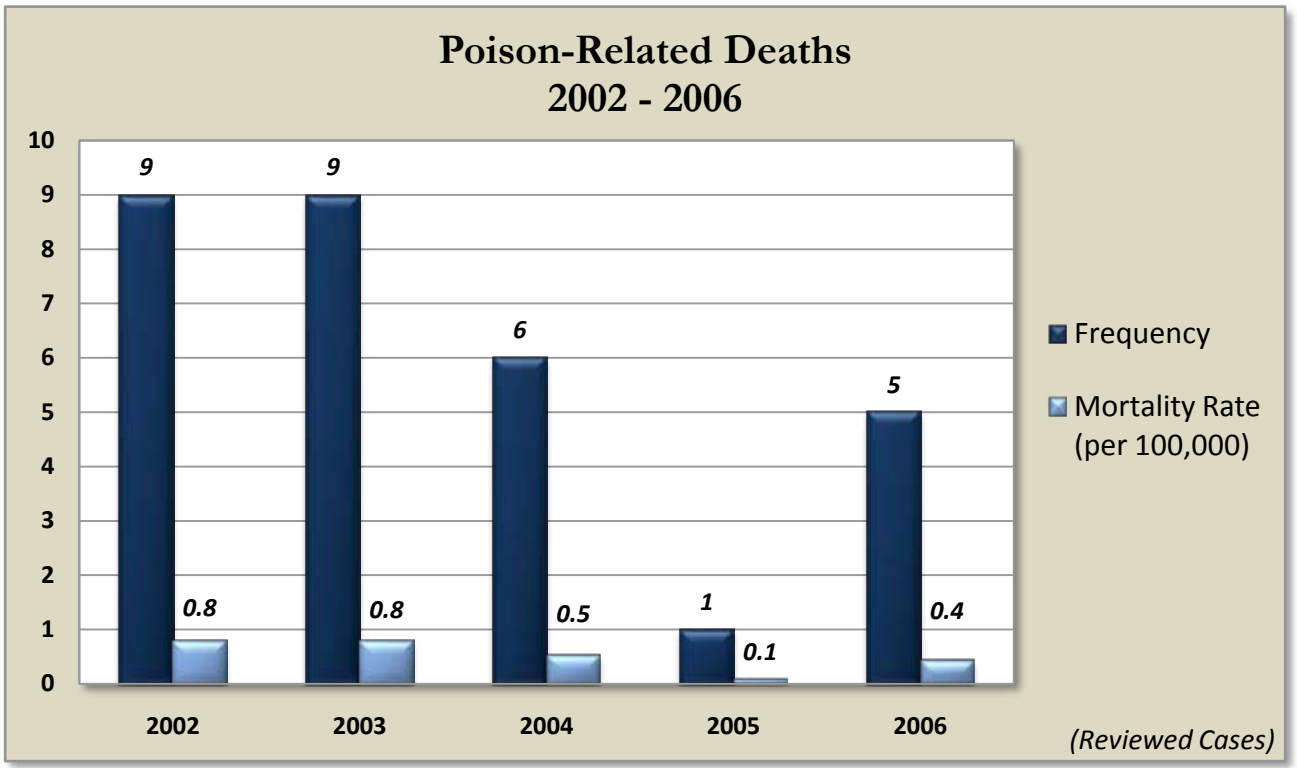
- Suffocation-related deaths show fluctuation over the five years examined.



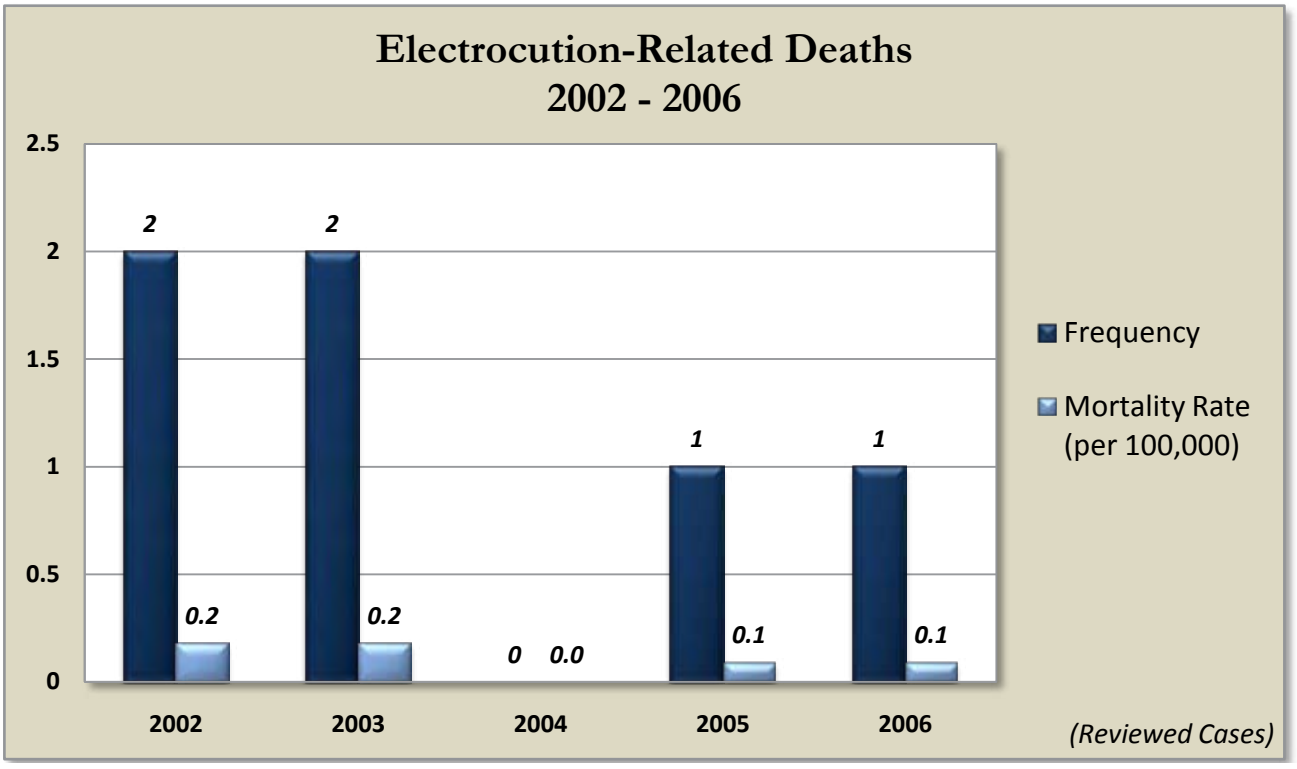
- While showing a steady rise from years 2002 to 2005, firearm/weapon-related deaths declined in 2006.



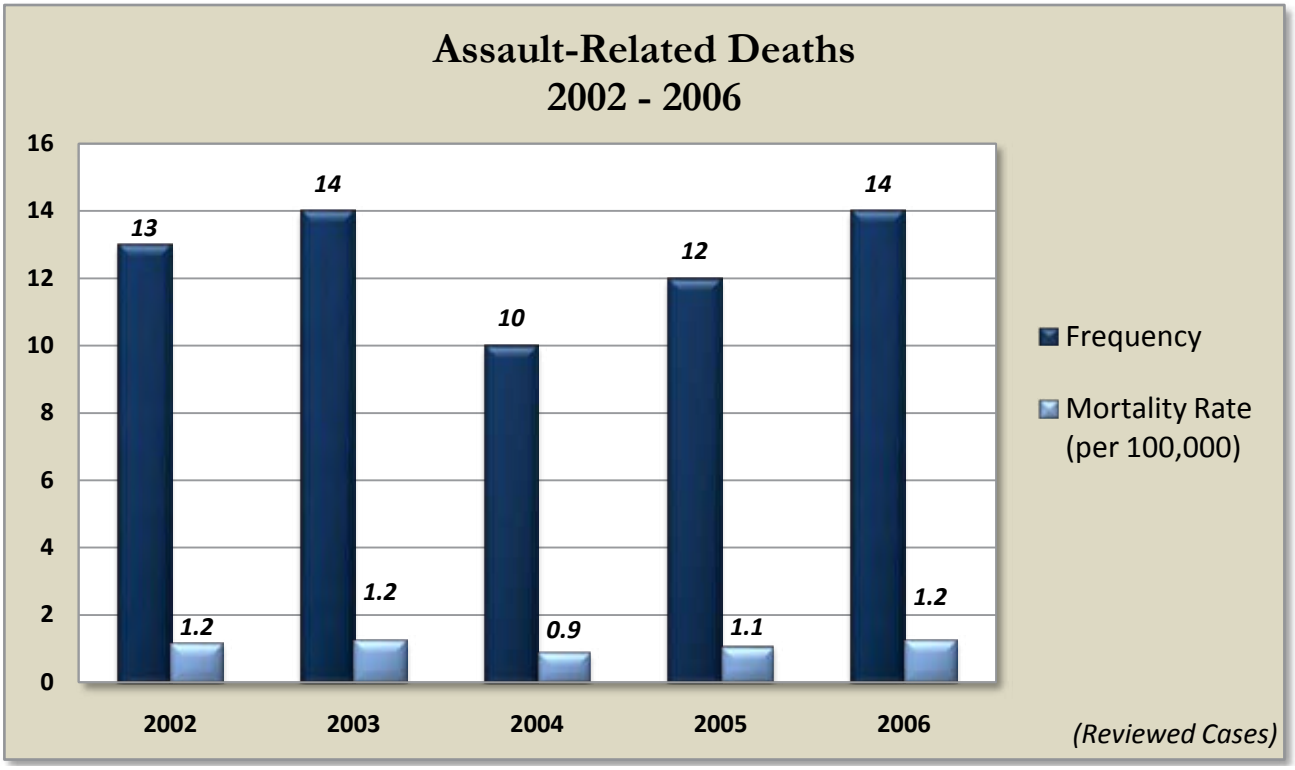
- Suicide deaths show a rise and fall over the five-year period.



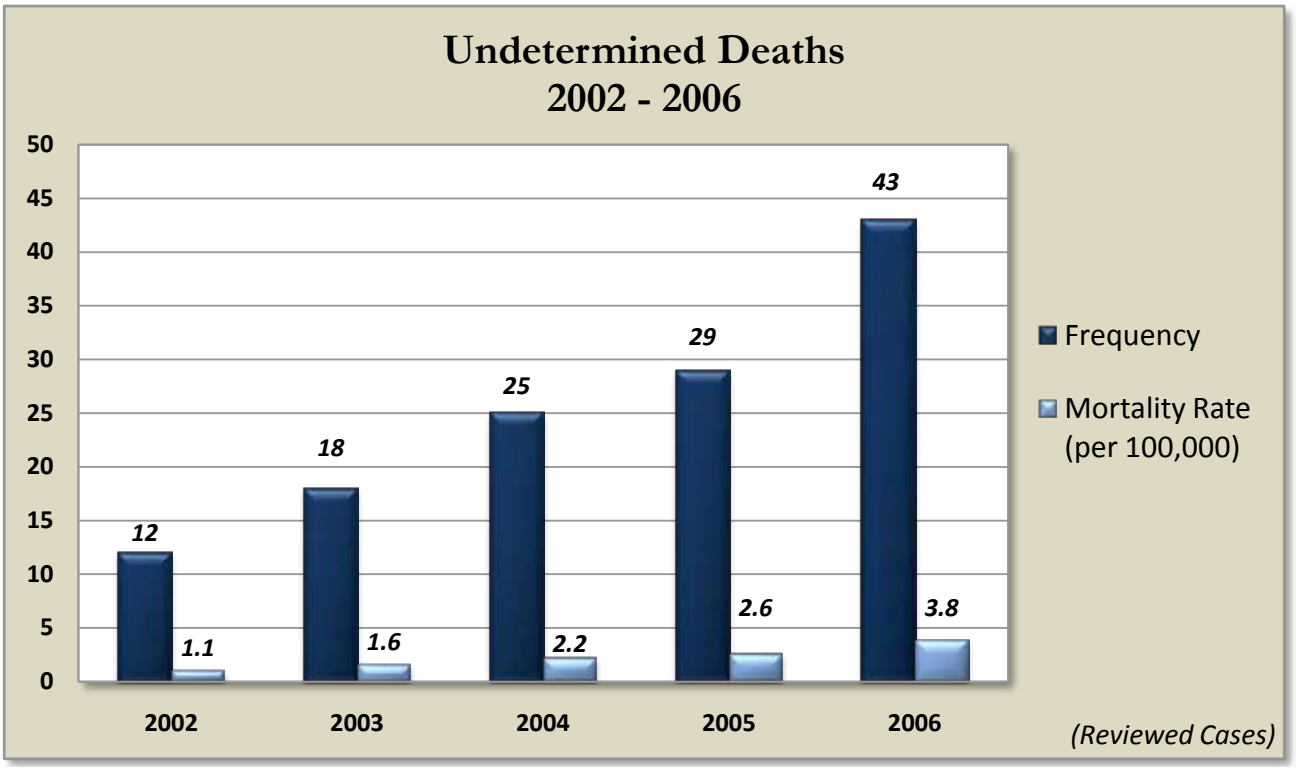
- Poison-related deaths seem to show a decline from 2002 to 2006. However, the numbers are of insufficient size to document a trend.



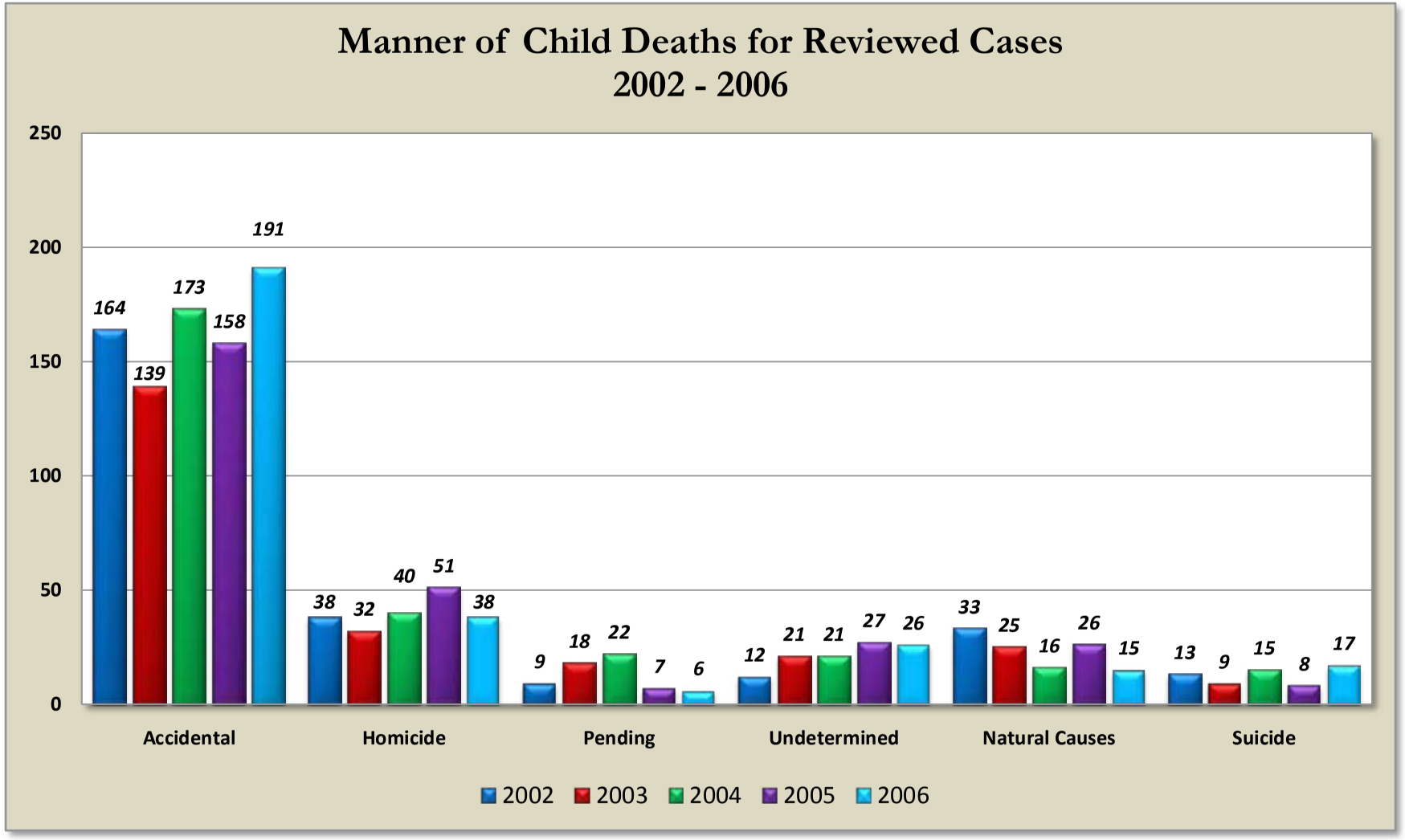
- Electrocution-related deaths appear to be fairly consistent over time.



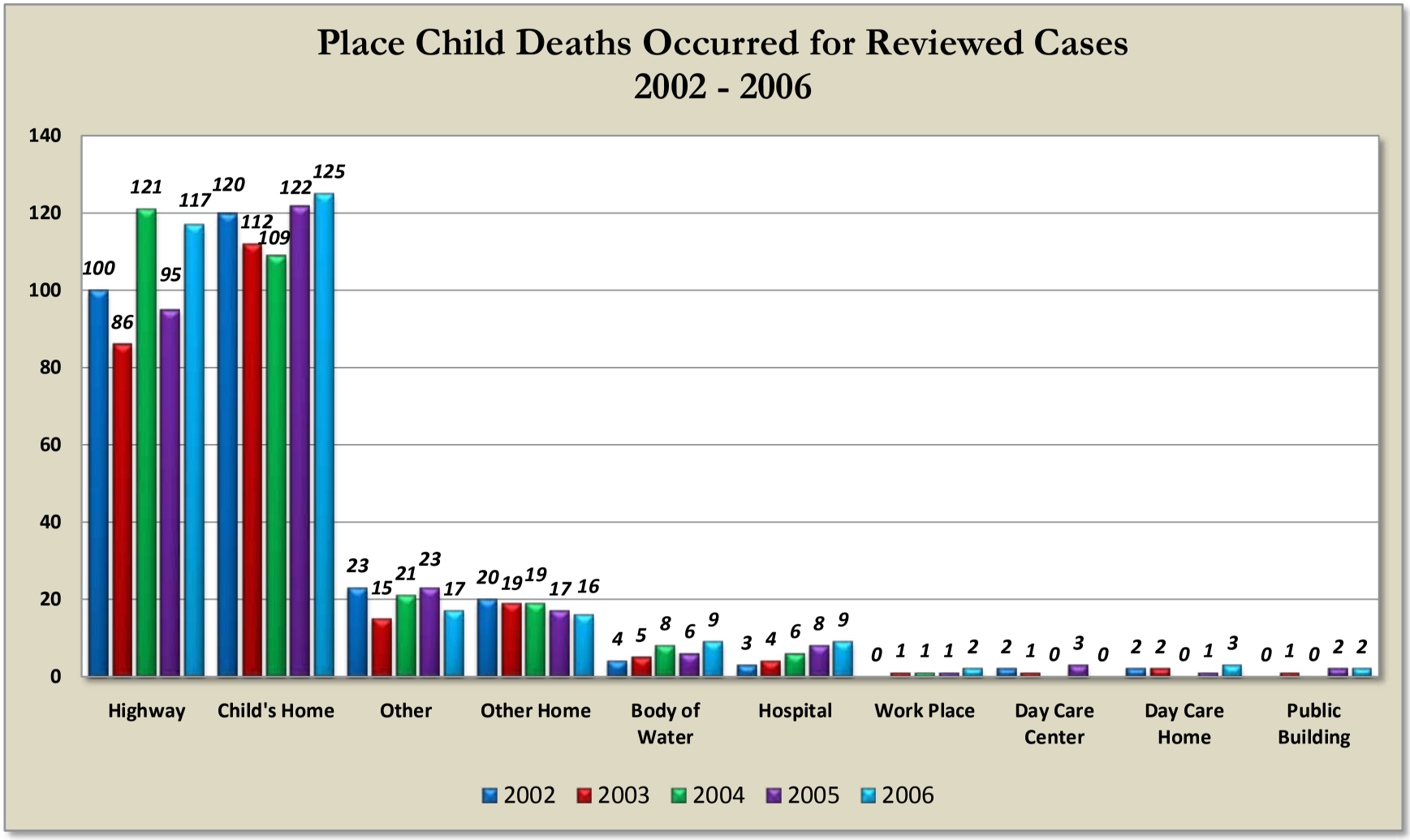
- Child assault-related deaths appear to be somewhat variable. However, the number of cases is of insufficient size to provide strong evidence for any implications.



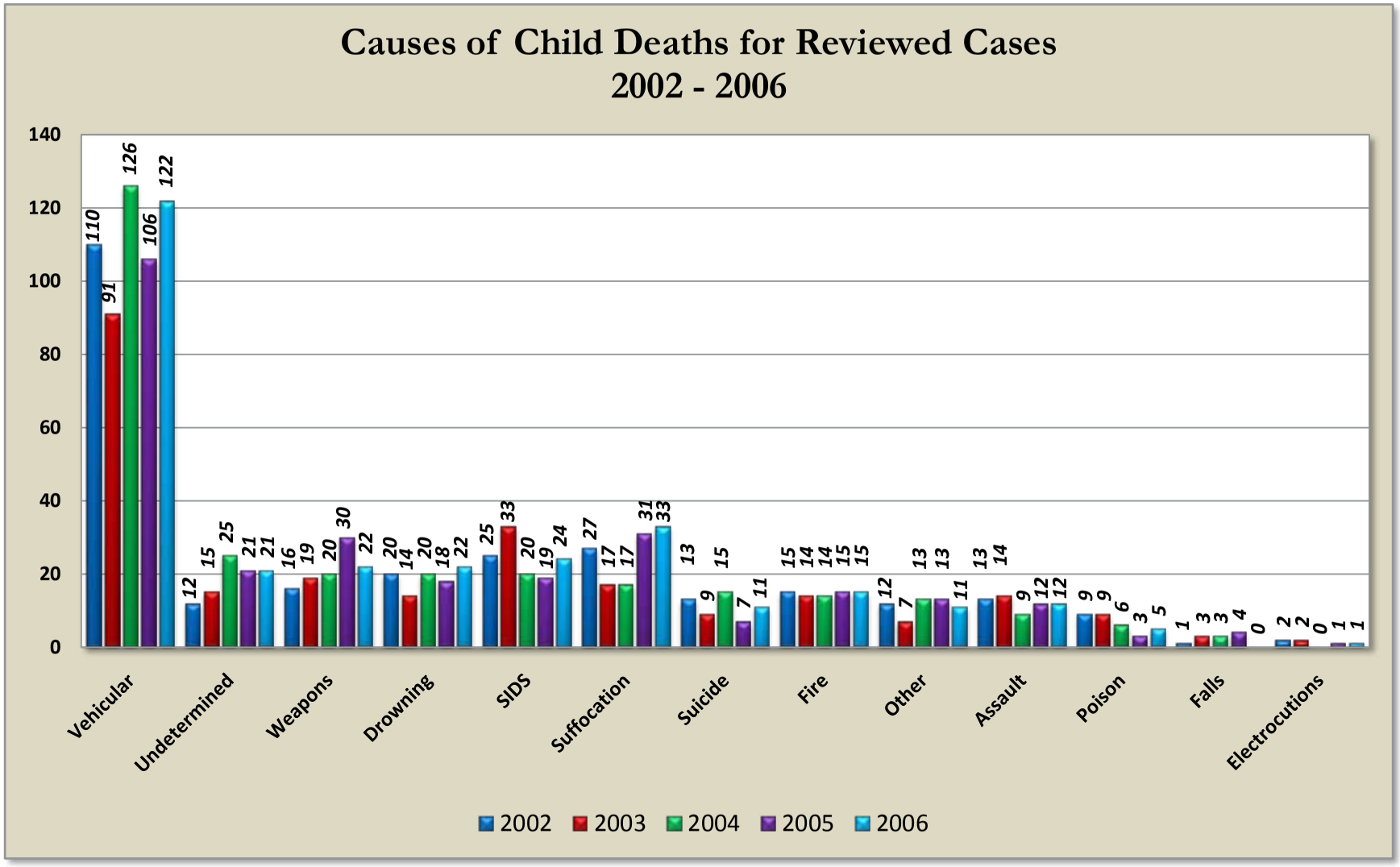
- The number of undetermined deaths from 2002 through 2006 appears to be increasing, although this upward trend is possibly due to reclassification of some child deaths.



- The manner of child deaths shows some fluctuation by year, although undetermined deaths show a slight increase and natural causes show a decrease. This is possibly explained by reclassification of some child-related deaths.



- There does seem to be variability in some locales, such as highway, but deaths are relatively consistent in other locales.

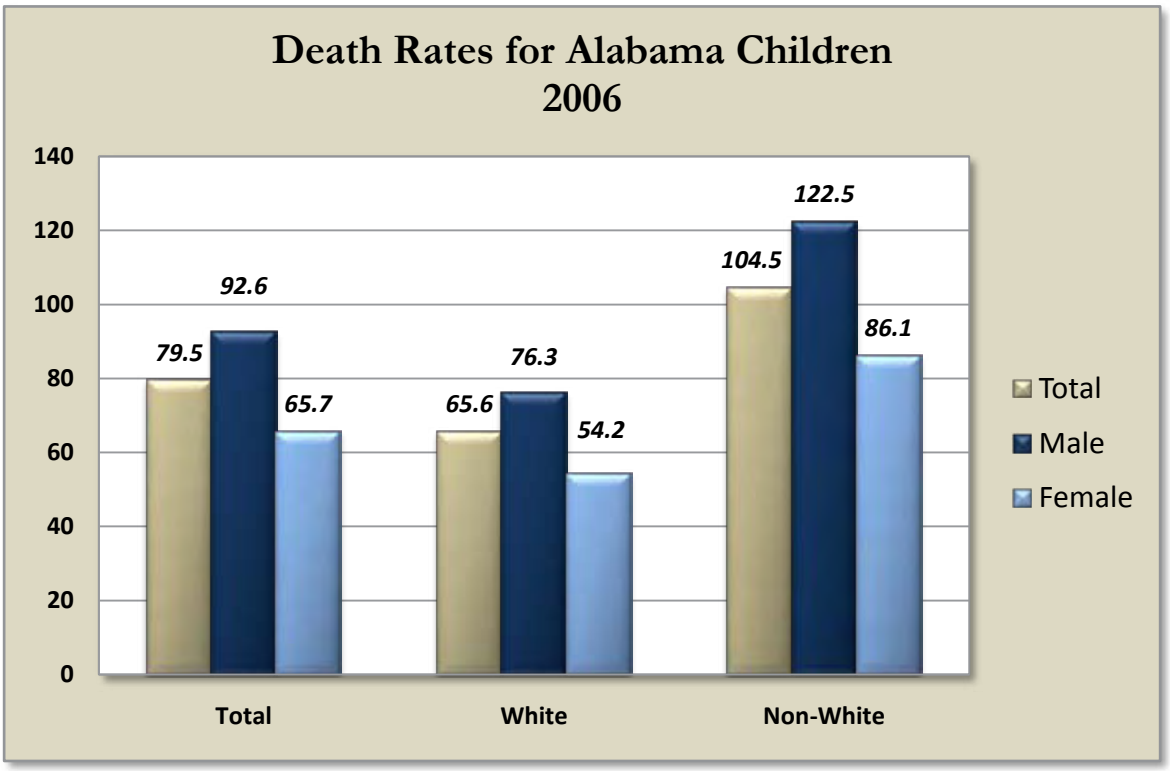


- Overall, there has been no consistent trend in causes of child deaths over the five-year period.

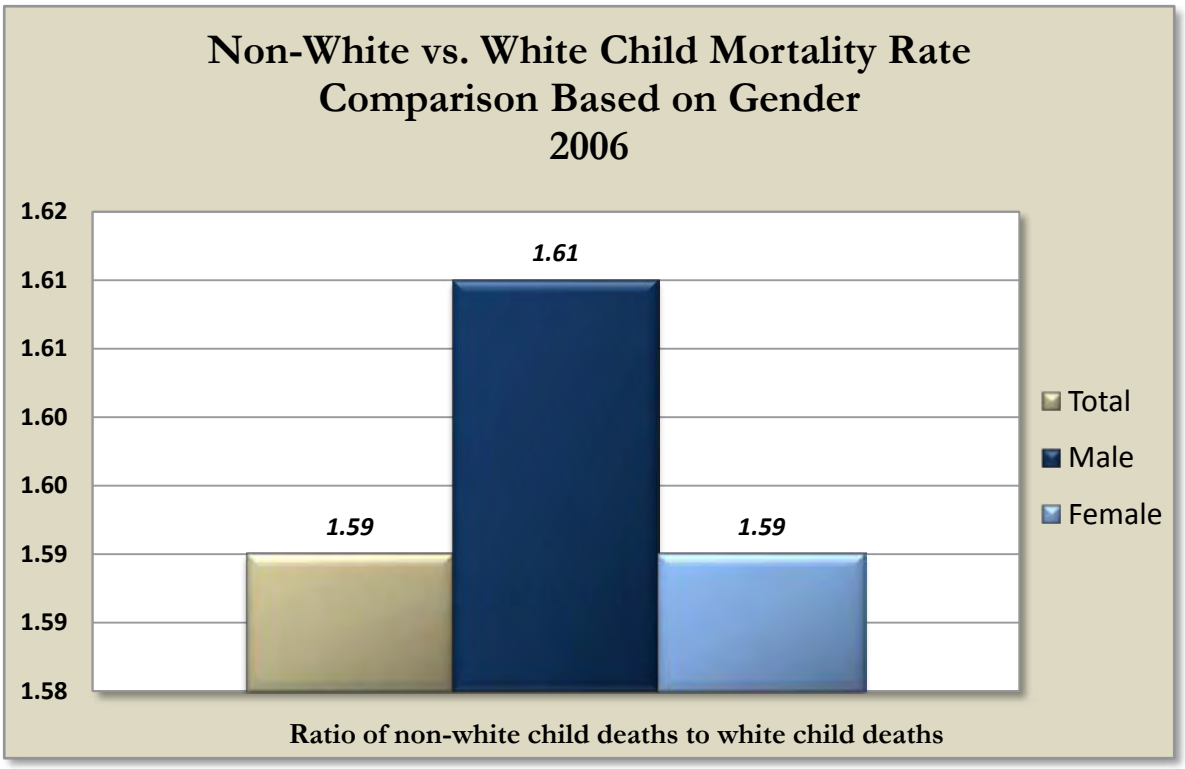
KEY FINDINGS

- There were 893 infant and child deaths (those under the age of 18) during 2006.
- The findings represent approximately 79.5 deaths per 100,000 children.
- Sixty percent of child deaths were to male children.
- Forty-seven percent of child deaths were to non-white children.

Below is a graph showing the total race-specific and gender-specific death rates (per 100,000 children) among children in Alabama in 2006. The graph allows for comparison of death rates among specific population groups.

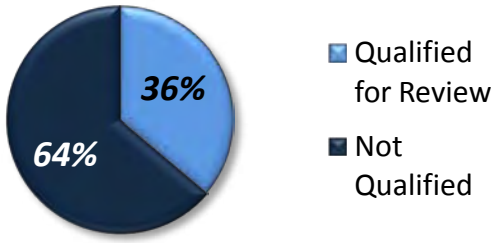


- Racial comparisons of the death rates of Alabama children are shown in the graph below. It should be noted that in each instance, non-whites have significantly higher rates ($p < .05$) than do whites (i.e. non-white males had a child mortality rate 1.56 times greater than white males).

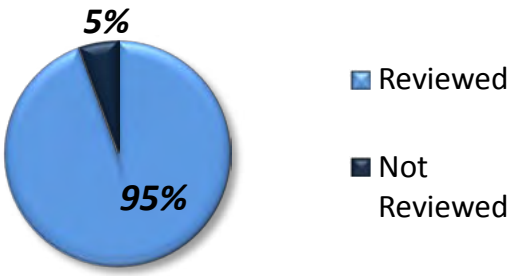


KEY FINDINGS

- As the chart below indicates, of the 893 child deaths in Alabama in 2006, there were 323 deaths that year that qualified for review under the Alabama Child Death Review System.



- Of the deaths that qualified for review (323), the Local Child Death Review Teams reviewed and returned 308 reports (see chart below). This compares to 85 percent reported for 2005.

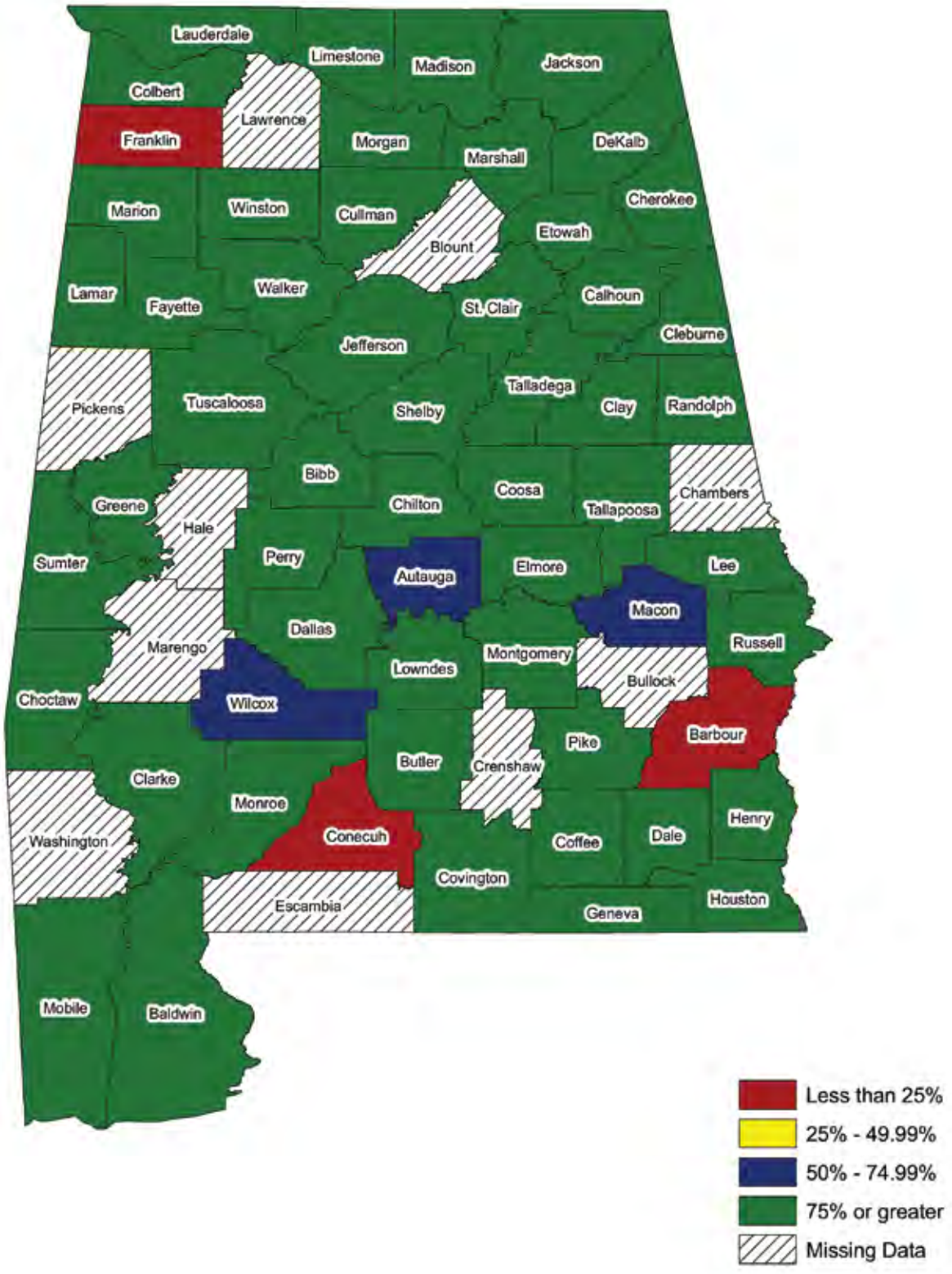


- In 2006, there were no significant race or gender differences in the proportion of cases reviewed compared to those cases not reviewed.

- While proportionately fewer neonates (those less than 28 days old) qualified for review in 2006 than did any other age category, there were no significant age group differences between those who were and those who were not reviewed.

AGE GROUP	*ALL*	*QUALIFIED*	*REVIEWED*	*QUALIFIED BUT NOT REVIEWED*
< 28 days	342	14	14	0
28 days – < 1 year	199	72	67	5
1 year – < 5 years	90	46	44	2
5 years – < 10 years	58	35	33	2
10 years – < 16 years	101	66	62	4
16 years – < 18 years	103	90	85	5

- There was a wide variety in the percentage of qualified cases that were reviewed and returned in 2006. The map below indicates the return rate for each Local Child Death Review Team. The goal is a 100 percent return rate.



KEY FINDINGS

- Nineteen suspected cases of Sudden Infant Death Syndrome (SIDS) were reviewed in 2006.
- We do not know the initial sleeping position of 60 percent of the babies whose deaths were reviewed; however 8 percent were placed on their stomachs, which is a known risk factor for SIDS.
- Of those cases reviewed, 36 percent of infants were sleeping in adult beds and 40 percent were not sleeping alone. These numbers may not fully represent the situation given our lack of knowledge of the deaths in cases where the position of the infant was unknown.
- Only three of the reviewed cases involved families that did not smoke.
- Of all cases reviewed, at least five cases (20 percent) were classified as "rollover" deaths.

RECOMMENDATIONS

1. Increase public awareness about the dangers associated with infants sleeping with adults in adult beds.
2. Increase public awareness of "Back to Sleep" and "Babies Sleep Safest on Their Backs" programs.
3. Teach the use of standard protocols for the investigation of all unexpected and unexplained child deaths, including autopsy, scene investigation, and review of medical history.
4. Study the merits of mandating autopsies for all sudden and unexplained child deaths.
5. Develop and implement a program to train medical examiners and law enforcement personnel in the thorough investigation of child deaths.
6. Develop and implement a mechanism for notifying the appropriate medical examiner whenever a death certificate is received that shows SIDS as the cause of death but for which no autopsy was done and/or the medical examiner had not been involved in the case.
7. Provide increased public education and encourage strict adherence to the 2005 American Academy of Pediatrics guidelines for preventing SIDS and reducing risks associated with infant sleeping environment.
8. Ensure that the death of every child in Alabama is reported to the appropriate medical examiner in accordance with ACDRS statute, Act #97-893.
9. Increase the number of forensic laboratories available to provide investigators with more timely information.
10. Require certification and training for everyone authorized to complete birth and death certificates in Alabama to include the use of standardized definitions.

KEY FINDINGS

- A total of 128 cases were reviewed in 2006.
- Thirty-three of these deaths (25.8 percent) involved young drivers (those 16 years to 17 years of age).
- Nineteen of these deaths (14.8 percent) involved underage drivers (those under the age of 16).
- Fourteen of the deaths (10.9 percent) were listed as being due to an inexperienced driver.
- Forty-six of these deaths (35.9 percent) were the result of not using lap and shoulder belts or other appropriate safety restraints. Four deaths (3.1 percent) were the result of restraints not being used correctly.
- Additionally, 57 of these deaths (45.6 percent) were due to reckless driving and/or speeding, with 16 of these deaths (12.5 percent) classified as reckless driving, 18 deaths (14.1 percent) classified as speeding, and 23 deaths (18 percent) classified as both reckless driving and speeding.

RECOMMENDATIONS

1. Support enhancements and improvements to the existing Alabama Graduated Driver's License law to include heightened restrictions on the number of passengers, driving during late hours, and the use of distracting electronic devices while driving.
2. Encourage the inclusion of information about the dangers of driving at high speeds and expand current education about reckless driving in driver's education courses.
3. Encourage auto dealerships to provide point-of-sale information resources about proper installation and usage of child safety seats and booster seats when selling new or used vehicles.
4. Encourage new laws to better regulate children on All-Terrain Vehicles to include licensure and mandatory safety equipment.
5. Reinstate and restore funding for the "Alabama Child Passenger Safety Program."
6. Adopt a policy of including multiple agencies in the development and implementation of all child safety interventions.

KEY FINDINGS

- Thirteen cases were reviewed in 2006.
- In one of these cases, fire was the result of faulty wiring in the child's place of residence.
- In six of the cases (46.2 percent), it was not known whether the residence had a smoke alarm. In four of the cases (30.8 percent), there was no smoke alarm.
- One case (7.7 percent) was a death that occurred in a mobile home, while one case (7.7 percent) occurred in a brick-frame home, and two cases (15.4 percent) occurred in wood/brick-mix homes.

RECOMMENDATIONS

1. Encourage enforcement of laws governing smoke detector installation, testing, and inspection in all homes, including new and used manufactured homes.
2. Support local fire departments in developing, expanding, and implementing fire education activities, particularly for elementary schools and child-care facilities.
3. Encourage community education efforts about the need for installation and periodic testing of smoke detectors in homes, businesses, and places of worship.
4. Explore the possibility of restricting cigarette retail sales to allow only "fire safe" cigarettes in Alabama.

KEY FINDINGS

- Twenty-one cases were reviewed in 2006.
- Nine of these deaths (42.9 percent) occurred in swimming and/or wading pools.
- Seven of these deaths (33 percent) occurred in open water.
- One of these deaths (4.8 percent) occurred in a bath tub.
- Of the 21 drowning deaths, 15 of these deaths (71.4 percent) were reported as not wearing a flotation device.

RECOMMENDATIONS

1. Support public education and awareness campaigns about water safety. Place special emphasis on the need for constant adult supervision and focus on pools, bathtubs, and open bodies of water.
2. Encourage enforcement of ordinances regarding pool fencing and signage.
3. Persuade communities to seek ways to make swimming lessons and water safety classes more readily available to children and parents.
4. Encourage the use of flotation devices when swimming in open bodies of water.

KEY FINDINGS

- Twenty-seven cases were reviewed in 2006.
- At least five of these deaths (18.5 percent) were suspected to be the result of "rollovers" by an adult during a bed-sharing situation. (Note: This is not a duplication of rollovers identified in the Sudden Infant Death Syndrome section.)
- Nine of these victims (33.3 percent) were reported to be sleeping in an adult bed when the death occurred.

RECOMMENDATIONS

1. Promote and encourage statewide education and awareness campaigns about safe sleeping practices and the dangers of bed sharing.
2. Promote and encourage parenting classes for new and, especially, young parents.
3. Provide increased public education and encourage strict adherence to the 2005 American Academy of Pediatrics guidelines for reducing risks associated with infant sleep environment.

KEY FINDINGS

- Seventeen cases were reviewed in 2006.
- Fourteen of these deaths (82.4 percent) were the result of firearm use, with nine deaths (52.9 percent) caused by handgun use and five deaths (29.4 percent) caused by rifle/shotgun use.
- The vast majority of these deaths, 12 (70.6 percent), were known to be due to an "intent to do harm."
- Only one of the deaths (5.9 percent) reviewed in this category was reported to be the result of playing with firearms.
- Two of the 27 children (11.8 percent) were killed by a weapon being handled by a family member.

RECOMMENDATIONS

1. Encourage gun safety education for children and parents.
2. Support crisis team and victim advocacy for children who witness violence.
3. Support after-school and evening education and recreation programs for high-risk youth.
4. Encourage community-based violence prevention programs.
5. Encourage safe and secure storage of firearms.

KEY FINDINGS

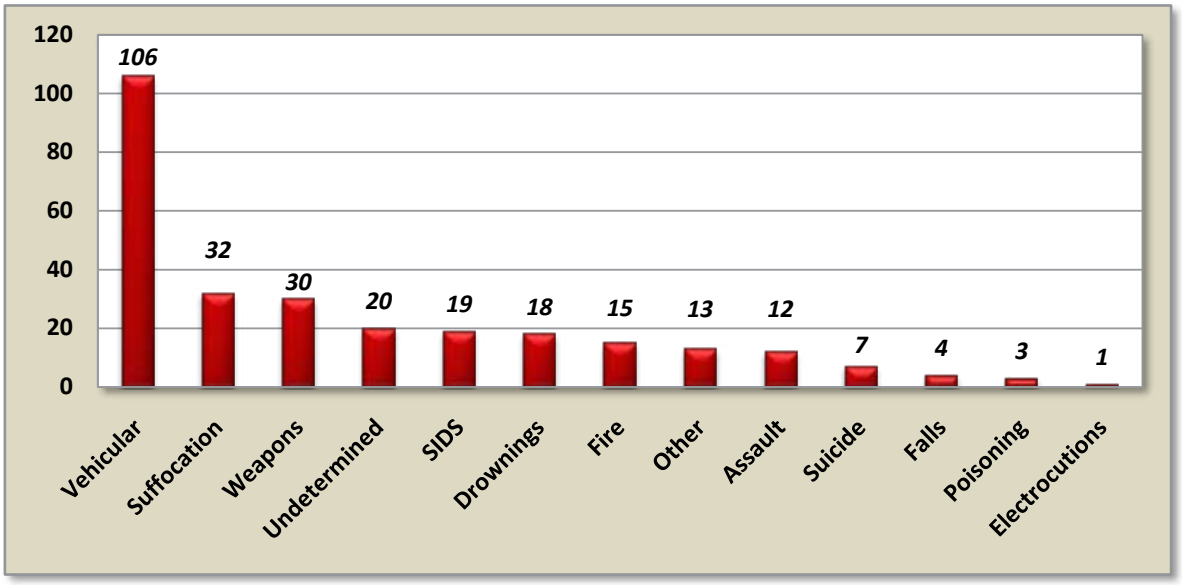
- Seventeen cases were reviewed in 2006.
- Four of these deaths (23.5 percent) were reported as being unexpected.
- Six of these deaths (35.3 percent) were the result of hanging while 10 deaths (58.8 percent) resulted from the use of firearms.

RECOMMENDATIONS

1. Support statewide efforts to examine issues surrounding adolescent suicide and develop plans for prevention.
2. Institute training for teachers about suicide risk assessment and referral resources.
3. Support a statewide education and awareness campaign aimed at parents and others about adolescent suicide risk assessment and assistance resources.
4. Support the Alabama Suicide Prevention Plan of 2004.
5. Encourage safe and secure storage of firearms.

REVIEWED CASES ONLY

- Motor vehicle involvement was the most often (37 percent) reviewed cause of child death in 2006.



POISON:

- Five cases were reviewed in 2006.
- Three of these cases were the result of prescription drug use.

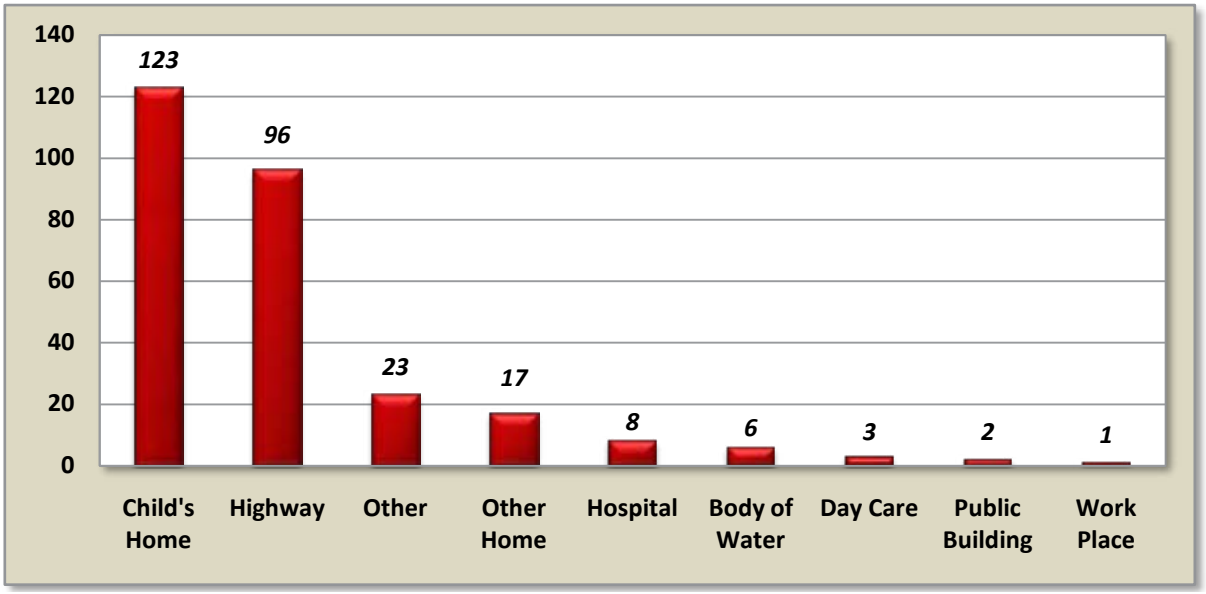
ASSAULT:

- Fourteen cases were reviewed in 2006.
- Of those, three deaths (21.4 percent) were caused by the use of hands and fists.
- Parents were responsible for five (35.7 percent) of the assault deaths.

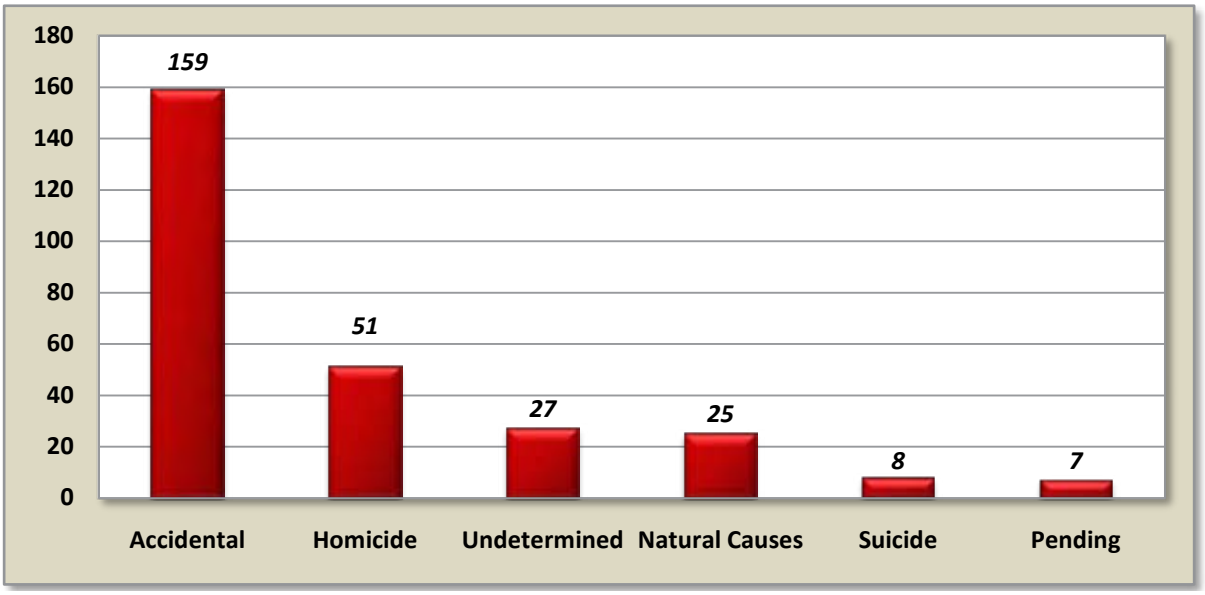
UNDETERMINED:

- Forty-three cases were reviewed in 2006 in which the cause of death was undetermined.
- In 15 of the cases (34.9 percent), the infant was not sleeping alone.
- In 10 of the cases (23.3 percent), rollover was suspected.
- In 17 of the cases (39.5 percent), infants were found in an adult bed, an easy chair, or on the floor.

- The child's home was the single most frequent place of death (43 percent) followed by the highway (33 percent).



- Accident was the most frequent manner of death reviewed (55 percent).



The Alabama Child Death Review System (ACDRS) is a grass-roots program driven by local citizens for the express purpose of saving the lives of as many of Alabama's infants and children as possible. Our very effective State and Local Teams have contributed significantly to a reduction in preventable child deaths since ACDRS began, and we continue to see great results from their hard work. We are delighted to report significant progress in both our data collection and our special interest programs.

Local Child Death Review Teams

The Alabama Child Death Review System is proud that all counties in Alabama now have a Local Child Death Review Team (LCDRT) with a Coordinator in place. This is an amazing goal that most other states with similar programs are striving to reach. Not only are the teams formed, but they are also meeting and reviewing cases at record rates. ACDRS is happy to report that the LCDRTs reviewed more than 95 percent of all qualifying 2006 cases, a record achievement for the program. We are greatly pleased with the impressive efforts of our Local Teams.

ACDRS Training

Many Local Team Coordinators and others participated in training that was made available at our 2008 ACDRS Statewide Training Conference. Coordinators learned how to effectively coordinate and conduct LCDRT meetings and gained insight into the operations of the program at the state level. A live webcast was also conducted in late 2008 to provide statewide training on the new ACDRS data collection system. A series of regionalized ACDRS trainings are planned for 2010.

Alabama SUIDI Team

The U.S. Centers for Disease Control and Prevention has established standardized tools and protocols for Sudden Unexplained Infant Death Investigations (SUIDI) that have been adopted nationwide. The ACDRS Director is proud to serve as one of the five members of the Alabama SUIDI Team, which has developed a formal SUIDI training course for Alabama. The Team has established and trained a cadre of trainers who are teaching the SUIDI curriculum to first responders statewide. The dissemination of this important information should greatly improve infant death scene investigations, the accuracy of infant death diagnoses, and the overall usefulness of the information ACDRS collects regarding infant deaths.

The Infant Vitality Initiative

ACDRS has been a partner in First Lady Patsy Riley's Infant Vitality Initiative efforts. The system has collaborated with the Department of Child Abuse Prevention's efforts to establish a pilot project in Jefferson County that will bring community partners together to develop a plan to streamline prevention efforts in an attempt to impact the problem of abuse and neglect of children from birth to age 3. This project will bring 20 non-profit agencies, nine area hospitals, public health, mental health, law enforcement, neighborhood associations, local businesses, the faith community, volunteers, colleges and universities, the Mayor's Office, the District Attorney's Office, and civic organizations together in this effort.

The Alabama Cribs for Kids Program

The Cribs for Kids Program in Alabama began in Montgomery as a pilot program. Cribs, along with personal instruction regarding safe infant sleeping, have been provided to many qualifying families in the Montgomery County area with the help of the Gift of Life Foundation. After the success of the initial program there, Gift of Life and ACDRS expanded the program to other counties in the state. Talladega and Escambia Counties have been added and we hope to expand our efforts with the Cribs for Kids program to even more Alabama counties in the future.

Booster Seat Advocacy Program

The Booster Seat Advocacy Program is a joint effort of ACDRS, Children's Hospital Child Safety Institute, the UAB Department of Pediatrics, and the Alabama Department of Public Health's Injury Prevention Division. The program was initiated after the passage of the enhanced child restraint amendment in Alabama. Booster seats are provided to families throughout Alabama to ensure that children who are too large for infant seats but too small to be adequately protected by seat belts alone are protected while riding in passenger vehicles.

We have highlighted only some of the successes that we are seeing. Many others are identified throughout this report. We recognize that every death is more than just a statistic to Alabama families and other fellow citizens. Every single infant and child death is a terrible personal tragedy. We are dedicated to reducing these tragedies as much as possible.

Vehicular deaths are the leading category of preventable deaths of Alabama children less than 18 years of age reviewed by the Alabama Child Death Review System and, in fact, account for approximately half of all such deaths in any given year.

The State Child Death Review Team recommends:

Comprehensive statewide awareness and education campaigns related to teen driver safety and child passenger safety

Enhancements to the current Graduated Driver's License (GDL) Law to include:

Significantly reducing the number of passengers allowed for the GDL driver
Increasing the limitations on late-hour driving under the GDL
Prohibiting the GDL driver from using distracting electronic devices while driving

Enhancements to and stricter enforcement of child passenger restraint laws

Establishment of a minimum age to operate All-Terrain Vehicles (ATVs)

Safety training requirements for ATV operators

Prohibition of passengers from open truck beds on public roads

Infant sleep-related deaths are the second-leading category of preventable deaths of Alabama children less than 18 years of age reviewed by the Alabama Child Death Review System and are by far the most likely cases to be misdiagnosed as to their manners and causes.

The State Child Death Review Team recommends:

A comprehensive statewide safe infant sleep awareness and education campaign

Support and promote the Alabama Sudden Unexplained Infant Death Investigation (SUIDI) Team's curriculum and training courses

1. **What is ACDRS?**
   - Alabama is one of 49 states that has Child Death Review (CDR).
   - Alabama state law signed on September 11, 1997, created the ACDRS State Office and both Local and State CDR Teams.
   - ACDRS is tasked to review, evaluate, and prevent cases of unexpected/unexplained child deaths.

2. **What is the "Mission" of ACDRS?**
   - To understand how and why children die in Alabama in order to prevent future child deaths.

3. **What is the primary focus of ACDRS?**
   - The primary purpose of ACDRS is prevention, not prosecution. This is done through statistical analysis, education and advocacy efforts, and local community involvement.
   - "Preventability" refers to the ability of an individual or community to reasonably have done something to alter the conditions that led to the child's death, thereby preventing the child's death, or to reasonably do something now to reduce the likelihood of future similar deaths.

4. **How is ACDRS organized?**
   - ACDRS is comprised of three major components:
     - The ACDRS **State Office** is located in the Alabama Department of Public Health, within the Children's Health Division of the Bureau of Family Health Services. There are three full-time staff members – Director, Assistant Director, and Administrative Assistant.
     - State Law requires each District Attorney to form at least one **Local Child Death Review Team (LCDRT)** in each Alabama Judicial Circuit. LCDRTs are multi-disciplinary and are required to meet at least once per year (most meet more frequently).
     - The **State Child Death Review Team (SCDRT)**, chaired by the State Health Officer (Director of the Alabama Department of Public Health), is also multidisciplinary and meets quarterly. Its 28 members include various state agency directors and representatives, medical professionals, judicial and law-enforcement officials, state legislators, and private citizens appointed by the Governor.

   - Because of these components ACDRS considers itself a "system."

5. How is ACDRS funded?

- Funding originates in Alabama's portion of the National Tobacco Settlement (NTS) through the Children First Trust Fund (CFTF).
- The amount equals one half of 1 percent of the total CFTF portion of the NTS not to exceed $300,000.
- The Alabama Medicaid Agency now also provides some supplemental funding to ACDRS through a reimbursement agreement. These funds are used solely for education and outreach efforts.

6. What does ACDRS do?

- Analyzes the deaths of Alabama's children
- Makes recommendations to the Governor
- Recommends and supports legislation
- Helps create policy and procedures
- Educates the public
- Helps to reduce infant and child deaths in Alabama

7. How does ACDRS operate?

- The ACDRS State Office receives a copy of all death certificates issued in Alabama for decedents less than 18 years of age. Each certificate is reviewed to determine whether it meets ACDRS review criteria. Cases meeting the criteria are then assigned to the appropriate LCDRT on a case-by-case basis.
- The LCDRT reviews the individual cases and, based upon its findings, completes the appropriate data collection forms and submits the information to the ACDRS State Office. The Local Team then takes action as allowed and/or required in the community to prevent additional deaths and makes recommendations to the State Team for consideration and action.
- The ACDRS State Office collects and analyzes the information submitted by the LCDRTs. This information is used to answer requests for specific data and to generate reports.
- The State Child Death Review Team meets quarterly to discuss Child Death Review (CDR) issues, review the statewide data, consider LCDRT recommendations and performance, and conduct general ACDRS business. The SCDRT makes periodic recommendations to the Governor and takes action on issues related to CDR (educational programs, informational publications, and other efforts).
- All formal recommendations and prevention efforts are evidence-based and goal-oriented.

8. What is included within ACDRS case review criteria?

- The deceased must have died in Alabama.
- The deceased must have been born alive (ACDRS does not review fetal deaths).
- The deceased must be less than 18 years of age.
- The cause of death must be non-medical, unexplained, and/or unexpected.

9. What are ACDRS goals?

- All Alabama death certificates assessed for review criteria
- All eligible cases reviewed at the local level by the appropriate LCDRT
- High participation and completion rate by the LCDRTs
- Meaningful research and recommendations
- Increased public awareness and understanding of risks
- Reductions in preventable infant and child deaths in Alabama

ALABAMA CHILD DEATH REVIEW SYSTEM: CASE REVIEW TIMELINE (AN EXAMPLE)

- An infant or child death occurs on September 1, 2006.
- The death certificate is received at the Alabama Child Death Review System (ACDRS) State Office by November 1, 2006, barring delays.
- The case is assigned to the appropriate Local Child Death Review Team (LCDRT) by November 15, 2006.
- The LCDRT meets to review this specific case and others during 2007 and/or 2008. (By law, each Local Team is required to meet only once per calendar year and all information necessary to the review process may not be available for several months after the death.)
- The ACDRS State Office receives the last of the 2006 death certificates by July 2007.
- April 1, 2009, is the deadline by which the ACDRS State Office is to receive all 2006 cases that have been reviewed by the LCDRTs.
- The ACDRS Annual Report on 2006 data is completed during 2009.

THE MISSION OF THE ALABAMA CHILD DEATH REVIEW SYSTEM

Aretha D. Bracy, Assistant Director
Alabama Child Death Review System
Alabama Department of Public Health
Montgomery, Alabama

The mission of the Alabama Child Death Review System (ACDRS) is to understand how and why children die in order to prevent future child deaths. The program's mission is carried out by the State Office, the Local Child Death Review Teams, and the State Child Death Review Team.

The Local Child Death Review Teams (LCDRTs) are designated by state law to be multidisciplinary teams under the direction of the District Attorneys (DAs) in every Alabama Judicial Circuit. The DA can designate a chairperson to coordinate the functions of the LCDRT to include preparation for review meetings, maintenance of confidential materials, and completion and submission of collected data to the State Office. DAs, chairpersons/coordinators, and members of the LCDRTs are not reimbursed in any way by ACDRS and volunteer their time for this cause.

The Alabama Department of Public Health's Center for Health Statistics provides a copy of the death certificate for each child in Alabama who dies under the age of 18 to the ACDRS State Office. ACDRS staff members review each case and determine if cases meet the criteria for an in-depth local review. Criteria for reviewable cases are non-medical, unexplained, and/or unexpected child deaths. Cases qualifying for review are assigned to the LCDRT according to the county of residence or event occurrence.

In 2006, there were 323 children whose deaths met the criteria for local review and whose cases were assigned to the appropriate LCDRT. The Local Teams are required to meet at least once annually (many meet more often, as needed) to review their assigned cases to determine an accurate cause and manner of death, preventability of the case as it pertains to future deaths, team and/or community intervention, and recommendations for the State Office.

Upon completion of the reviewable cases, the LCDRT coordinator compiles the data collected, completes the data collection tool along with Local Team recommendations, and submits this information to the State Office. This information is used to publish annual reports, provide specific recommendations to the Governor and other policy makers, and enhance awareness and prevention efforts for future deaths. Without the voluntary efforts of the LCDRTs on behalf of the children and families of Alabama, ACDRS could not fulfill its mission.

ACDRS AND THE INJURY PREVENTION BRANCH: WORKING TOGETHER TO PREVENT CHILD DEATHS

Jamey Durham, Director
Injury Prevention Branch
Bureau of Health Promotion and Chronic Disease
Alabama Department of Public Health
Montgomery, Alabama

The unexpected death of a child is always a tragedy. Through programs such as the Alabama Child Death Review System (ACDRS) and the Injury Prevention Branch (IPB), great strides have been made to prevent and reduce accidental, unexpected, and unexplained child deaths within Alabama. However, much more is needed. In order to implement effective prevention strategies, there must be an understanding of how these deaths occur. ACDRS is a mechanism that unearths how these tragic deaths occurred. The data collected by ACDRS provides the IPB a springboard to create, market, and implement effective prevention activities. Here is a glimpse of how our symbiotic relationship can change the lives of Alabamians.

ACDRS reviewed 128 child vehicular deaths that occurred in 2006. Causes of death ranged from underage driving to reckless driving. Armed with this data and an Observational Survey conducted each year by the IPB, new programs have been created to help reduce the number of fatalities. Programs such as a monthly child restraint inspection site, a more aggressive Click-It-Or-Ticket Campaign, and a prenatal restraint program offered every month at hospitals have yielded a positive trend in our Observational Survey. We hope that when the next ACDRS Annual Report is published, we will be able to note a decline in the number of deaths associated with these types of injuries.

Another programmatic area in which ACDRS data and IPB programs share a stake is fire prevention. ACDRS reviewed 13 cases in 2006 and determined that these deaths occurred from causes such as faulty wiring or homes being absent of life-saving devices, such as smoke alarms. The IPB gathers crucial information from the State Fire Marshall, the National Fire Prevention Association, and now ACDRS to assess current injuries and deaths due to home fires. Through this data, the IPB Fire Prevention Program and Consumer Product Safety Commission inspectors provide life-saving programs to ensure recalled products are pulled off the shelves and homes receive working fire alarms.

This is just a small snippet of how ACDRS and the IPB work together to reduce the number of tragic child and youth deaths within our great state. As we look to the future, the Injury Prevention Branch will avail more of its programmatic specialists to ACDRS, thus strengthening our combined prevention efforts.

ALL-TERRAIN VEHICLES: A DANGER FOR CHILDREN

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All-terrain vehicles, also known as ATVs or 4-wheelers, have become very popular as recreational vehicles. The number of users of 4-wheel ATVs has climbed from less than 400,000 to more than 6.9 million over the past two decades. Along with the increased use, we have seen increased injury and death rates. National data reveal a 37 percent increase in serious injuries since 2001. In our state, the Alabama Child Death Review System (ACDRS) has reviewed more than 40 child ATV fatalities since 2000, but the deaths, while tragic, are just the tip of the iceberg.

Children under the age of 16 riding ATVs are four times more likely than older ATV operators to experience an injury requiring emergency room treatment. In 2007 alone, Children's Hospital in Birmingham admitted 60 children who were injured severely enough to meet trauma-alert criteria for ATV-related injuries, while an additional 38 patients were treated in the Emergency Department without a trauma team. The trauma-alert numbers have increased dramatically, with a total of 61 children being trauma-alert patients in 2008 alone. All of these children were under the recommended ATV age of 16 and several were less than 5 years old, with the youngest being *15 months* of age.

ATVs may weigh up to 500 pounds and may travel as fast as 75 miles per hour. Children only account for 14 percent to 18 percent of riders, but they account for 37 percent to 50 percent of injuries. Children are 4.5 times more likely to need hospital emergency department services than adults, and some studies note that children face up to 12 times an increased risk of death. The American Academy of Pediatrics (AAP) recommends no ATV use by children younger than age 16 because they lack:

- Physical size and strength
- Coordination and balance and have slower reaction times
- Maturity and judgment and are more likely to ride in dangerous conditions

Both the AAP and the ATV industry recommend no passengers since ATVs were designed for single-use riding.

Several outreach efforts were conducted this past year to make the public aware of the dangers of these vehicles. A news conference was held at the Alabama Department of Public Health, movie advertisements addressing the dangers of ATVs were shown for two six-week periods at Rave motion picture theaters in Alabama, and posters were created listing the dangers of ATVs. Children's Hospital is currently creating a video for parents and youths to review the recommendations for use and the dangers associated with ATV riding. Preventing child ATV injuries and deaths remains a priority for ACDRS and child health and safety advocates throughout the state.

ABUSIVE HEAD TRAUMA:
A MORE ACCURATE TERM THAN SHAKEN BABY SYNDROME

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The concept of "whiplash shaken baby syndrome" was first introduced in the 1940s and there has been much research, publicity, and controversy regarding ***Shaken Baby Syndrome*** (SBS) ever since. Because it is considered a completely preventable cause of infant and child death, the Alabama Child Death Review System (ACDRS) has had a vested interest in the issue since its inception. In recent years, however, the terminology of SBS has been called into serious question. ACDRS learned just a couple of years ago that some prosecutors in Alabama were encountering difficulty prosecuting SBS perpetrators due to conflicting expert testimonies regarding the specifics of SBS and even the very existence of such a "syndrome."

Almost 10 years ago, the National Association of Medical Examiners (NAME) appointed an Ad Hoc Committee on SBS. The Committee's report discussed diagnostic indicators of shaking- and impact-related head injuries in infant and child fatalities, and differentiated between these injury mechanisms and the forces commonly encountered in routine infant/child activities and playing. But the lack of a uniform definition and the shortfalls of some of the terminology used were also apparent.

In May 2009, the American Academy of Pediatrics issued a formal policy statement regarding *Abusive Head Trauma in Infants and Children*. The AAP now recommends that the term ***Abusive Head Trauma*** be used instead of SBS. The medical community and others are following the lead of medical examiners across the nation who have abandoned the SBS terminology for the more accurately descriptive terms *Abusive Head Injury* and/or *Abusive Head Trauma*. ACDRS has already seen these changes in terminology in practical use and, as it becomes more universally accepted and understood, hopefully the aforementioned prosecutorial challenges regarding such cases will be resolved. Clearly, the public has been made very familiar with the term Shaken Baby Syndrome by years of outreach and education efforts on the subject and the term will likely continue to be used in such efforts for that very reason. However, in professional forensic and fatality review circles, Shaken Baby Syndrome has already been replaced in clinical use by Abusive Head Trauma.

- **Cases That Meet the Criteria for Review –** These are cases involving the deaths in Alabama of infants and children from live birth to less than 18 years of age whose deaths are considered unexpected or unexplained.
- **Cause of Death –** As used in this report, the term "cause of death" refers to the underlying cause of death. The underlying cause of death is the disease or injury/action initiating the sequence of events that leads directly to death, or the circumstances of the accident or violence that produced the fatal injury.
- **Reviewed Cases –** This term includes those cases that were reviewed by a Local Child Death Review Team and added to the Alabama Child Death Review System (ACDRS) database.
- **Manner of Death –** This is one of six general categories (Accident, Homicide, Suicide, Undetermined Circumstances, Pending Investigation or Natural Causes) that is found in Item #49 on an Alabama Death Certificate.
- **Natural Causes –** A manner or cause of death by other than external means (the expected outcome of a disease, birth defect, or congenital anomaly). ACDRS normally will not review such cases. However, many cases in which the cause of death is initially classified as "Pending" or "Undetermined/Unknown" are later discovered to have been death by "Natural Causes." This is why there are so many in this category included in the data. Sudden Infant Death Syndrome (SIDS) is considered a natural cause of death, but Local Child Death Review Teams are required by law to review all SIDS deaths.
- **Residential Institutions –** As used in this report, this is a term that identifies a place of death. Included in this classification are hospitals and emergency rooms. The number of deaths that occur in this category is usually fairly high because frequently victims survive long enough to reach the hospital, but then expire there.
- **Sudden Infant Death Syndrome (SIDS) –** This is a very specific type of SUID (see below) in infants from 1 month to 1 year old in which all external contributing causes are eliminated through complete autopsy and toxicology, review of the clinical history, and thorough death scene investigation.
- **Sudden Unexplained Infant Death (SUID) –** This is a broad term used to describe sudden infant deaths from a variety of both internal and external causes.
- **Unexpected/Unexplained –** In referring to a child's death, this category includes all deaths that, prior to investigation, appear possibly to have been caused by trauma, suspicious or obscure circumstances, child abuse or neglect, other agents, or SIDS.

KEY DATES FOR 2010

- **January 21 –** State Team Meeting
- **April 1 –** Deadline for submission of all calendar year 2007 case reviews
- **April 22 –** State Team Meeting
- **July 22 –** State Team Meeting
- **October 21 –** State Team Meeting

...We are all part of the solution

ADPH

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