

Mississippi's Children. . .

*Our Most Precious Resource*



Mississippi Child Death Review Panel

Mississippi State Department of Health, Health Services

2011 Annual Report

## LETTER FROM THE CO-CHAIRS

Infant and child deaths have profound effects upon individuals and communities. These untimely deaths are all tragic, but those that could have been prevented are particularly so. Preventing infant and child death requires further understanding of the causes and circumstances surrounding each case. As members of the Mississippi Child Death Review Panel (CDRP), it is to this goal of prevention that we are dedicated.

The CDRP was established by House Bill 560, which became effective July 1, 2006. The CDRP is tasked with the specific duty of preparing an annual report to be submitted to the Chairmen of both the House and Senate Public Health and Human Services Committees. The report herein is written to display our findings and to make recommendations to legislators regarding policy additions and/or changes which would begin to reduce the number of infant and child deaths in our state.

The CDRP went through several changes this year which we believe will further our abilities to glean useful information from data collected. In early 2011, the panel met with Teri Covington, Director of the National Center for Child Death Review. Shortly thereafter, we unanimously voted to implement the Center's National Data system for collection and warehousing child death information. The National Data System, a web-based collection form, is more than 20 pages long for each child death. The report is quite detailed, but the quality of our legislative recommendations is still dependent on the quality of information received - we must receive more accurate records in a timely fashion from those on the front lines of scene investigation to fully utilize the capacity of this system.

Paramount for legislators and others to see is the number of "**preventable**" deaths. This data is listed at the top of each Cause of Death category. It serves as a reminder to us all that we CAN make a difference in protecting the lives of children in our state. We are incredibly pleased to report a **13% decrease** in child deaths in Mississippi compared to previous year data. Specifically, both the Vehicular and Fire/Burn Related Causes of Death reported significant decreases. Regarding preventability, the most glaring numbers are seen this year in the "Sleep Related," "Undetermined," and "Weapon Related" categories.

We are sadly aware that **69 of the child deaths under the age of 1 were discovered in an unsafe sleep environment**. We again ***strongly support*** the implementation of a statewide, state funded "Cribs for Kids" program and a Safe Sleep Awareness campaign. Plainly stated, *infants must have a safe place to sleep to reduce the tragedy of Sudden Unexpected Infant Deaths (SUID) such as Sudden Infant Death Syndrome and Accidental Suffocation that are associated with unsafe sleep practices*. Above all, please note the recommendations on the corresponding pages as vital areas of opportunity to decrease the number of children's lives lost.

Mississippi's Child Death Review Panel remains committed to the simple, yet incredibly important goal of preventing infant and child deaths in our state. Through public awareness, education, and prevention and safety legislation, we intend to do just that.

Sincerely,

Tami H. Brooks, MD  
Appointee, Speaker of the House

Jamie Adams Seale  
Appointee, Lt. Governor

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# STATE TEAM MEMBERS

|                                 |   |
|---------------------------------|---|
| <b>Chief Charles Bingham</b>    | Mississippi Police Chief's Association                              |
| <b>Tami H. Brooks, MD</b>       | Appointee – Speaker of the House                                    |
| <b>Cathy Files</b>              | Mississippi SIDS Alliance, Inc.                                     |
| <b>Hazel Gaines, MS, RN</b>     | Child Death Review Panel Coordinator, MS State Department of Health |
| <b>Carolyn Gillentine</b>       | State Coroner's Association   |
| <b>Erin Barnhart, MD</b>        | Mississippi State Medical Examiner's Office                         |
| <b>Patti Marshall</b>           | Attorney General's Office   |
| <b>Tamara Garner</b>            | Department of Human Services  |
| <b>Rex &amp; Faye McCord</b>    | The Compassionate Friends   |
| <b>Judy Moulder</b>             | Mississippi State Department of Health – Office of Vital Statistics |
| <b>Vacant</b>                   | March of Dimes  |
| <b>Sheriff Tim Perkins</b>      | State Sheriff's Association   |
| <b>Jamie Adams Seale</b>        | Appointee – Lieutenant Governor                                     |
| <b>Lynn Walker, MD</b>          | American Academy of Pediatrics                                      |
| <b>LaFarra Young-Gaylor, MD</b> | University of Mississippi Medical Center – Pathology Department     |
| <b>Vacant</b>                   | Children's Advocacy Center  |

## *Ad Hoc Membership List*

|                               |   |
|-------------------------------|---|
| <b>Reggie Bell</b>            | Mississippi Fire Academy  |
| <b>Scott Benton, MD</b>       | UMC Department of Pediatrics, MS Children's Justice Center      |
| <b>Connie Bish, PhD</b>       | MCH Epidemiologist, CDC Assignee, MS State Department of Health |
| <b>Gerri Cannon-Smith, MD</b> | Jackson State University  |
| <b>Ricky Davis</b>            | Mississippi State Fire Marshal's Office                         |
| <b>Kelly Elliott</b>          | Mississippi Fire Chiefs Association                             |
| <b>Michael Hughes</b>         | Mississippi SAFE Kids   |
| <b>Rebecca Mansell, JD</b>    | UMC Department of Pediatrics, MS Children's Justice Center      |
| <b>Glennis Patton</b>         | Mississippi Department of Health DIME Project                   |
| <b>Tammy Peavy</b>            | Mississippi State Fire Marshal's Office                         |
| <b>Gloria Salters</b>         | Attorney General's Office                                       |
| <b>Leslie Threadgill</b>      | Mississippi SIDS Alliance, Inc.                                 |

## PREFACE

There were 614 children under the age of 18 who died in Mississippi from January to December 2010. While each one of these deaths leaves a terrible void, each also provides a powerful opportunity to serve as a warning to other children at risk. To better understand how and why these children died, the CDRP maintains statistical data on child mortality. Ultimately, it is our goal to identify preventable deaths for years to come.

This report is a compilation of Review team meetings where members examine and assess death certificates, toxicology reports, autopsies, death scene investigations, etc. These are our intentions:

- 1) to identify factors that put children at risk of injury or death;
- 2) to share information among agencies that provide services to children and families or that investigate child deaths;
- 3) to improve local investigations of unexpected child deaths;
- 4) to improve existing services and systems while identifying gaps in the community that require additional services;
- 5) to identify trends relevant to unexpected child injury and death;
- 6) to educate the public about the causes of child injury and death while also defining the public's role in helping to prevent such tragedies.

Several bills have recently passed that we believe will, over time, decrease the number of child deaths in our state. We are truly grateful for the efforts and focus of numerous members of the House and Senate and applaud the legislature for the passage of the following bills and/or resolutions:

- HB558 (2008): Booster Seat Law
- HB1357 (2008): Bans riding off road vehicles in public waterways, increases fines for trespass
- HB1405 (2008): \$50 Fee on sale of ORVs/motorcycles to pay for the state Trauma Care System
- SB2280 (2009): Graduated Licenses for Teens
- SB2249 (2009): Self-extinguishing Cigarettes
- HB722 (2009): Hospital notification of State Fire Marshal on burn injuries
- SB2770 (2009): Teen Suicide Prevention Education for teachers
- HC23 (2009): Joint Resolution encouraged families to take ORV safety course, use helmets for riders under age 16 and ride at slow speeds
- HB232 (2010): Prohibited the sale of novelty lighters
- SB2196 (2011): ATV/ORV helmet mandate for children under 16 with vehicle operator having either driver's license OR safety certificate
- SB2836 (2011): Study and make recommendations on reform of State Mental health services for children, youth and adults
- HB 551 (2011): "Nathan's Law" increased fines for passing a stopped school bus

We are extremely pleased with the legislature's focus on addressing the needs in the State Medical Examiner's office, *as it is and has been* our belief that with proper direction and management at that level, we will receive much more viable data to review and learn from. As Richard Burleson, Director of the Alabama Child Death Review, stated, ***"You cannot change what you cannot measure."***

The 2011 CDRP Annual Report presents key findings from the review team and from Mississippi's child mortality data. It also makes recommendations that may help prevent unexpected or unexplained child deaths. Thus, this report honors the memory of *all* children who have died in Mississippi. We hope that it leads to a better understanding of how we can all work together to make our state a safer and healthier place for our children and grandchildren.

# DEFINITIONS

***Cases that meet the criteria for review:*** These are cases involving the deaths of Mississippi resident infants and children from birth to less than 18 years of age whose deaths are considered unexpected or unexplained. We also review child deaths of non-Mississippi residents that occurred in our state.

***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 the responsible CDRP subcommittee.

***Manner of Death:*** This is one of six general categories (Accident, Homicide, Suicide, Undetermined Circumstances, Pending Investigation, or Natural Causes) found on the MS Death Certificate.

***Medical / Natural Causes:*** A manner or cause of death by other than external means (the expected outcome of a disease, birth defect, or congenital anomaly). The CDRP 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 our data.

***Sudden Infant Death Syndrome (SIDS):*** Sudden infant death syndrome is the sudden death of an infant under age 1 that cannot be explained after a thorough investigation has been conducted, including a complete autopsy, an examination of the death scene, and a review of the clinical history. SIDS is a diagnosis of exclusion of all other factors contributing to the death.

***Sudden Unexpected Infant Death (SUID):*** This is a cause of death listed as a result of the CDC’s increasing need for accurately classified data regarding infant death. Sudden unexpected infant deaths are deaths that occur suddenly and unexpectedly in infants less than one year of age, where the cause of death is not immediately known prior to investigation. SUID has several categories: SIDS, accidental suffocation, unknown, inborn errors in metabolism, poisoning/overdose, and cardiac channelopathies.

***Unexpected/Unexplained:*** This classification is used when the information pointing to one manner of death is no more compelling than one or more other competing manners of death in thorough consideration of all available information; or, despite complete and thorough investigation, full autopsy, histology and toxicology work-up, cause and thus manner of death remain unknown.

***Undetermined:*** This classification is used when the cause and/or manner of death cannot be determined.

***Unknown:*** Regarding the case review process, this term is used to signify that we did not have the information.

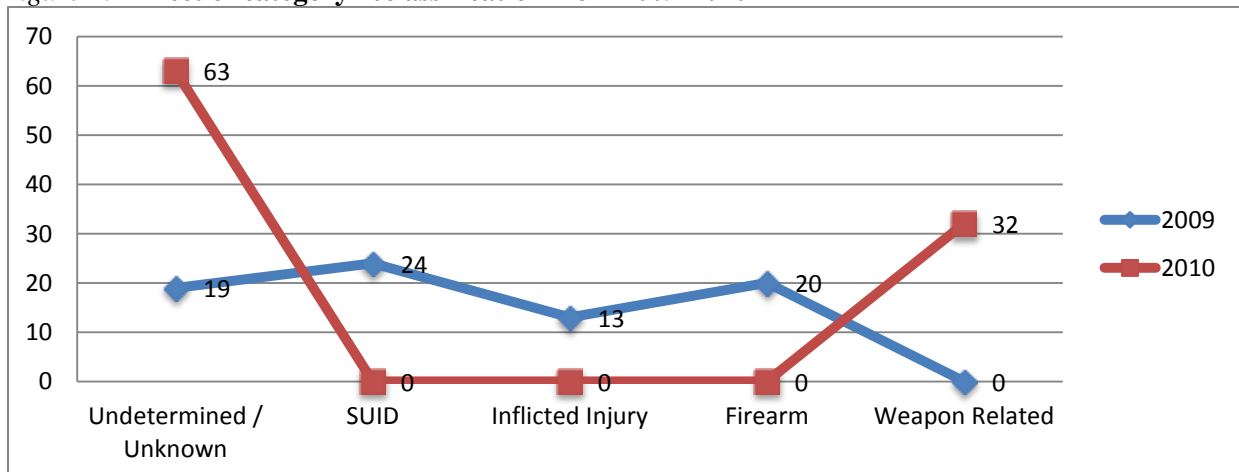
***CMEI:*** County Medical Examiner Investigator

# OVERVIEW

- There were 614 infant and child deaths (under the age of 18) in 2010, a **13% decrease from 2009 which equaled 92 children.**
- 335 cases met the criteria for review, with 101 of those found to be medical/natural causes.
- 75% (177 cases) of all non-medical child deaths were in the following Cause / Circumstance categories: Vehicular, Suffocation/Asphyxia, or Weapon Related, or Undetermined.
- **42% (99 cases) of all non-medical child deaths were infants under the age of 1, 62% (147 cases) were under 5, and 70% (166 cases) were less than 10 years old (categories overlap).**
- No significant racial or ethnic disparities were noted: 48% (114 cases) of deaths reviewed were African American, 49% (116 cases) were White, and 3% (4 cases) were of other races.
- 67% (158 cases) of the non-medical deaths reviewed were male.
- The most significant increase in Cause /Circumstance of death occurred in the Undetermined / Unknown category which increased from 19 to 63 deaths and the Firearm category which grew from 15 to 20 deaths (included in Weapon Related). *See chart and explanation below.*
- **Significant decreases occurred in the following categories:** Fire/Burn category (60% less, from 25 to 10 cases) and Motor Vehicle Collision (24% less, from 78 to 59 cases).

*Though several Cause of Death categories appear to have had significant changes, the changes are primarily due to re-classification of Cause of Death data to correlate with categories used by the National Center for Child Death Review data system (implemented by CDRP in 2011). SUID is now included in Undetermined, increasing this category for 2010. Likewise, Inflicted Injury and Firearm are now both included in Weapon Related, increasing this category for 2010 (Figure 1). Please note pages 12-15 and 17 for further explanation.*

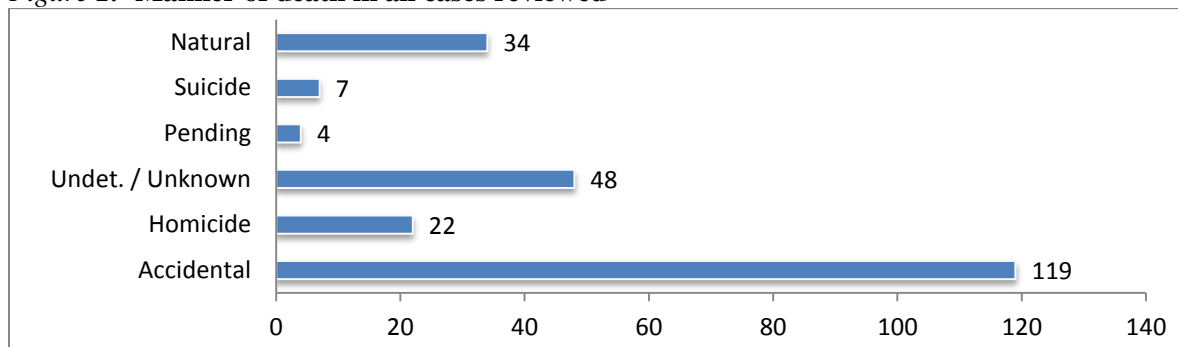
**Figure 1: Effect of category reclassification from 2009-2010**



# MANNER of Death

**Manner of Death** is the classification of how the child died. There are six categories used to group deaths: Accidental, Pending, Homicide, Natural, Undetermined/Unknown, and Suicide. As you can see in Figure 2, the majority of all reviewed child deaths in our state were accidental, and thus ***largely preventable***.

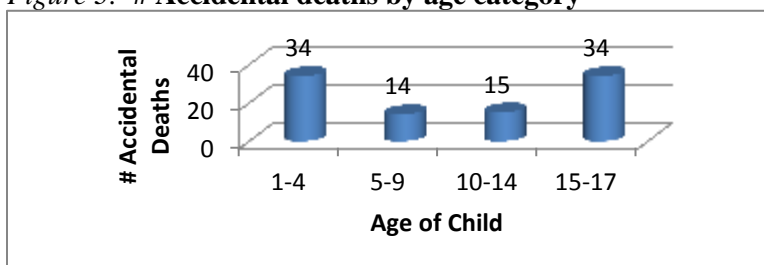
Figure 2: Manner of death in all cases reviewed



## Key Findings:

- All 4 Pending cases as well as 16 of the Undetermined/Unknown deaths were infants under the age of 1
  - All 4 “Pending” cases were infants less than one year old:
    - 2 were born *Premature* (<37 weeks gestation)
    - 2 were exposed to *Intrauterine Smoke*
  - 16 of the 48 “Undetermined/Unknown” deaths were infants less than one year old:
    - 8 were born *Premature* (<37 weeks gestation)
    - 11 were exposed to *Intrauterine Smoke*
- 33 of the 34 “Natural” deaths were infants less than one year old:
  - 10 were born *Premature* (<37 weeks gestation)
  - 11 were born *Low Birth Weight* <2500 grams (about 5.5 pounds)
  - 11 were exposed to *Intrauterine Smoke*
  - 1 were exposed to *Intrauterine Alcohol*
  - 1 was exposed to *Intrauterine Drugs*
  - 4 were born to mothers who received *Late* (>6 months) or *NO prenatal care*
- Accidental deaths occurred in children 1-4 years old and 15-17 years old twice as often as in children 5-9 and 10-14, (Figure 3)

Figure 3: # Accidental deaths by age category

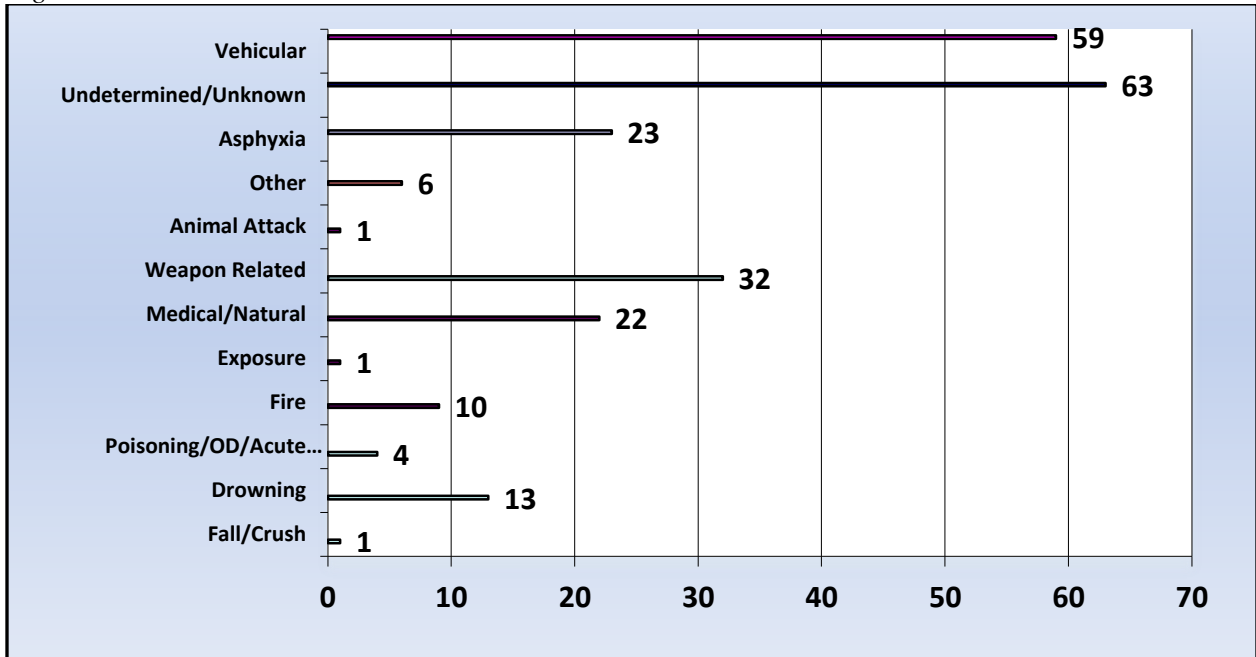




# CAUSE of Death

**Cause of Death** is the reason the child died. This 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. Information related to Cause of Death is reviewed from multiple sources including the MS Death Certificate.

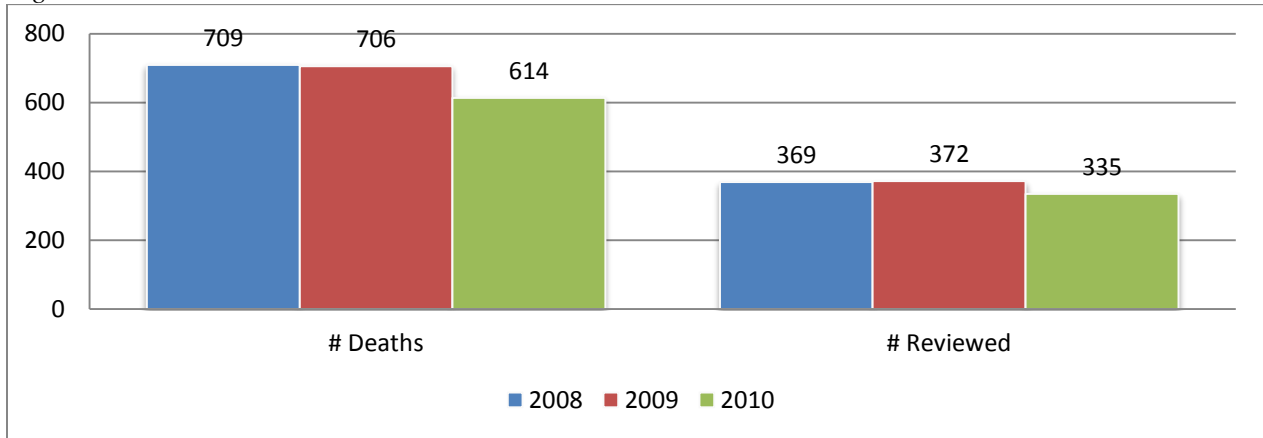
Figure 4: Cause of Death



# THE REVIEW PROCESS

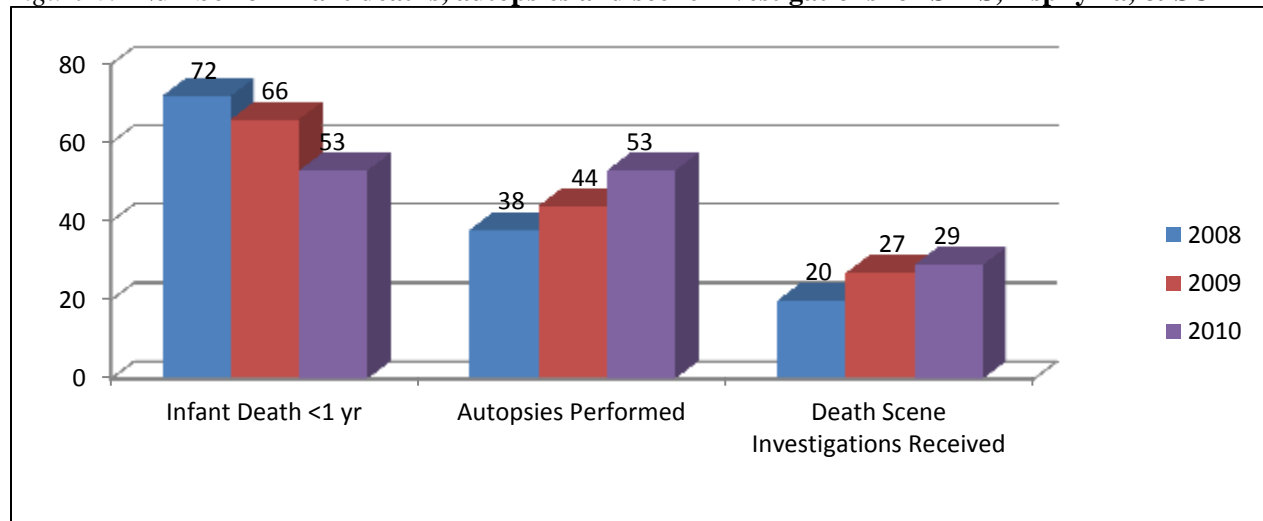
Since inception in 2006, the Child Death Review Panel has been party to a very large learning curve. As the group has gained new members with differing areas of expertise, protocols and procedures have been streamlined and adapted to meet the needs of our state. It is our goal to review as many deaths as possible, as thoroughly as possible, focusing especially on those that are *preventable*.

**Figure 5: Number of deaths in 2008 - 2010 vs. the number of cases reviewed**



Though we believe that progress is being made, we are still experiencing an **overall lack of information**. We remain hopeful that as the system of payment for timely Death Scene Investigation reports is fully utilized, there will be a marked increase in the number of reports completed by CMEIs. (*CMEIs are required by law in our state to complete these reports for all infant death cases, and the county coroners are now receiving additional compensation of \$100 (HB 1523) for getting this information to the State Medical Examiner's office in a timely manner.*) Though progress has been made, Figure 6 below indicates that ***in spite of the legal mandate***, information regarding SUID, SIDS, and Asphyxia is still **lacking** from CMEIs.

**Figure 6: Number of infant deaths, autopsies and scene investigations for SIDS, Asphyxia, & SUID**



# MOTOR VEHICLE COLLISIONS

59 deaths

35 preventable

## Key Findings:

- **Restraints** (when present in the vehicle) **were not used in at least 31 cases**, were used in at least 13 cases, used incorrectly in 2 cases, and were not present in the vehicle in 16 cases\*
- **25 of the 59 deaths** (42%) in this category **were teens 15 to 17 years old**
- **12 children were drivers, 38 were passengers**, 5 pedestrians, 3 unknown as to position of decedent, and 1 on a bicycle
- 34 deaths occurred in a rural area, with 61% (21 cases) of those killed in a rural area listed as passengers
- Alcohol/drug impairment of the driver was noted in 2 cases, no license by the driver of child's vehicle in 2 cases, and **2 or more teen passengers were present in at least 16 collisions\*\***
- Cars were the most common type of vehicle the decedent was in, followed closely by trucks, then SUVs and least of all vans
- In teens ages 14 – 17, driving conditions noted were “wet roads” in 4 cases, “construction zone” in 1 case, and “inadequate lighting” in 2 cases
- **3 of the deaths were ATV related** , 2 of which were passengers on the ATV

## Recommendations:

- Support additional legislation regarding distracted driving, i.e., texting, cell phone usage, internet usage, etc. A 2010 study of Mississippi drivers conducted by the Family and Children Research Unit Social Science Research Center at Mississippi State University found that **65.5% of 18-24 year olds had written or sent text messages while driving, and 79.3% of 18-24 year olds had been a passenger in a vehicle driven by someone texting or emailing.** (*See Addendum 1*)
- Update and/or expand current booster/car seat/infant seat laws to follow the current guidelines and recommendations of the American Academy of Pediatrics.
- Consider amending current legislation mandating booster seats for all children at least 4, but under age 7 with weight less than 65 lbs. to align with national guidelines of under 4'9" tall and 80 – 100 lbs., regardless of age. (*See Addendum 2*)
- Examine the impact of graduated licensing legislation (SB2280) passed during the 2009 session.
- Continue to educate the public on ATV and Off-road Vehicle (ORV) safety.

\* Numbers do not add up to total because more than one protective measure could have been used (ex. Child used lap and shoulder belt).

\*\* Numbers do not add up to totals because the factors are not mutually exclusive.

## Defining SUID, SIDS, Suffocation/Asphyxia and Recent Changes in Cause of Death to “Undetermined”

***The relationship between SUID, SIDS, and Suffocation/Asphyxia is an issue that must be addressed in order to accurately present data related to these causes of death.***

Nationally, SIDS (Sudden Infant Death Syndrome) rates have been declining since the early 1990s. However, CDC research has found that the decline in SIDS since 1999 can be explained by *increases* in other SUID (Sudden Unexpected Infant Death) categories such as Unknown and Suffocation/Asphyxia associated with unsafe sleep environments, i.e., overlaying, suffocation, and wedging of infants.

Inaccurate classification of cause and manner of death obviously hinders prevention efforts – not only in Mississippi, but nationwide. Researchers are unable to adequately monitor national trends, identify risk factors, or evaluate intervention programs without standardized classification. Noting the effect of inaccurate classification of cause and manner of infant deaths, the CDC began the SUID Initiative. The goals of this initiative were to develop tools and protocols to:

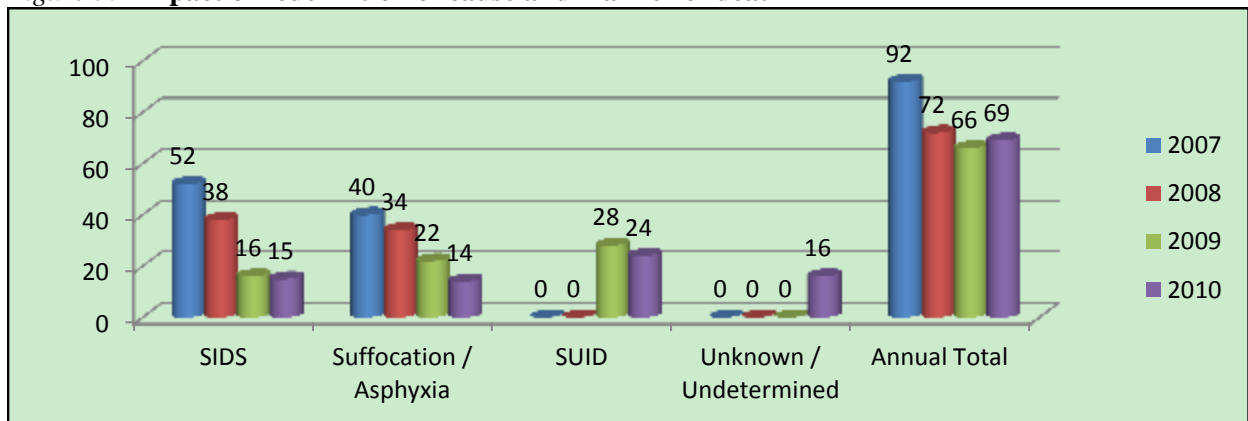
- Standardize and improve data collected at infant death scenes.
- Promote consistent diagnosis and reporting of cause and manner of death.
- Prevent SUIDs by using improved data monitoring trends and identifying those at risk.
- Improve national reporting of SUID.

Mississippi Coroners received training in 2006/2007 on how to properly complete the SUID Investigation Reporting Form, interview families, and conduct death scene reenactments (e.g., how the infant was discovered, type of sleeping environment, etc.); however, **we are still woefully lacking consistent and thorough reporting in Mississippi.** (See Addendum 5, pg. 30 for revised AAP recommendations specifically regarding training policies for CMEIs.)

***More training is needed for Mississippi’s CMEIs, with great emphasis placed on consistency in reporting and consistency in investigating infant deaths.***

Please see Figure 7 for the most accurate comparison of data for all sleep related infant deaths from 2007 to 2010. Note that the **annual totals varied very little from 2007 to present**, regardless of changes in Cause of Death Classification from SIDS to SUID to Undetermined. For a detailed explanation of current trends in Forensic Cause of Death Classification, (see Addendum 6).

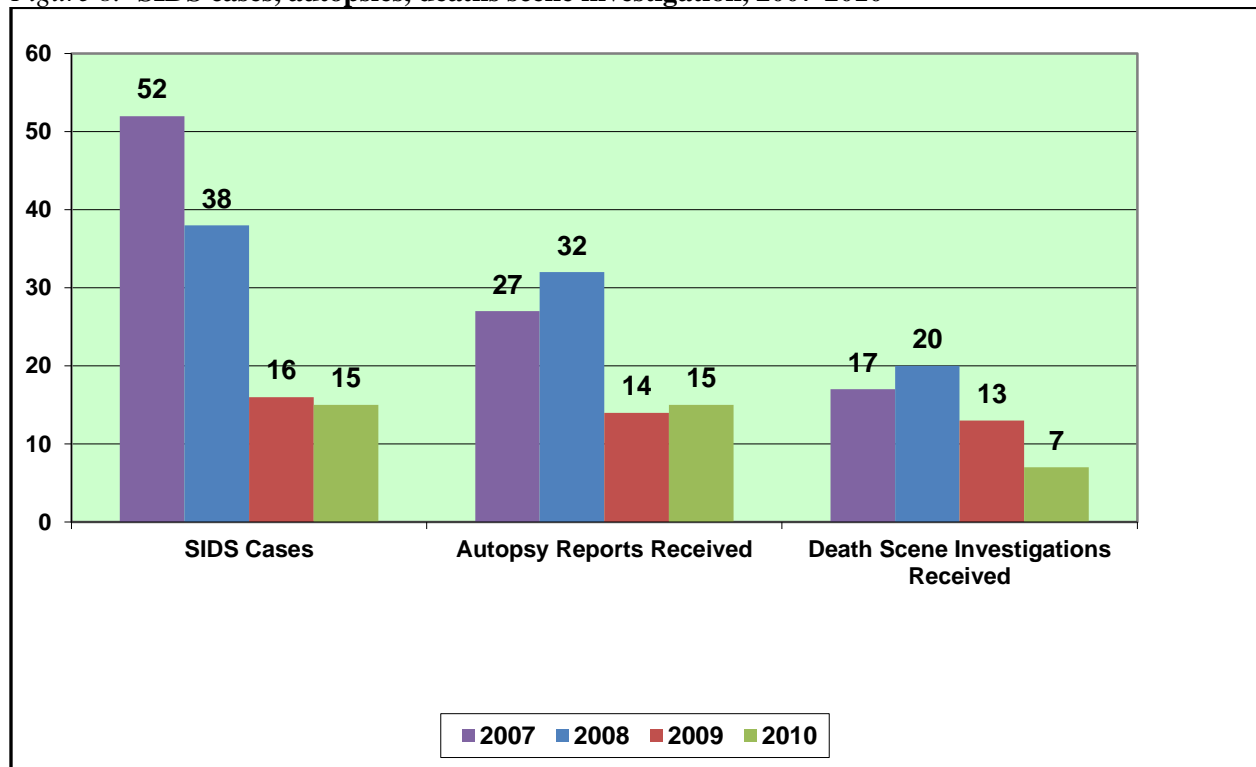
**Figure 7: Impact of redefinition of cause and manner of death**



**Key Findings:**

- 15 infants deaths were classified as SIDS compared to 16 in 2009
- 9 children were African American and 6 were White
- 10 infants were male, 5 were female
- 86% (13 cases) of the infants were 4 months old or younger
- Mississippi law **mandates** that autopsies and infant death scene investigations be performed on **all** suspected SIDS and Sudden Unexpected Infant Death cases and subsequently reported to the State Medical Examiner’s office, and although significant improvements have been made, there still remains a lack of full information available for review (Figure 8).

*Figure 8: SIDS cases, autopsies, deaths scene investigation, 2007-2010*



# SUFFOCATION/ASPHYXIA

16 deaths

13 preventable

## Key Findings:

- **14 of the 16 deaths (87%)** in this category **were babies less than 1 year old**
- **All 14 of the infant deaths were associated with co-sleeping** or were sleeping in an **unsafe sleep environment**
- 15 of the suffocation/asphyxia cases (**93%**) **were reported accidental**, with 1 ruled suicide
- **15 of the 16 deaths were sleep related.** . . . occurring as a result of various unsafe sleep environments, i.e., not in a crib or bassinette, bed-sharing/co-sleeping with another person



*Unveiled in November 2011, this controversial City of Milwaukee Health Department ad sparked national media attention.*

*"We entered into this with the understanding that we had a guerrilla tactic here, and it might make some uncomfortable," Milwaukee Health Commissioner Bevan Baker says of the campaign.*

*The campaign is in response to 11 Milwaukee infant deaths during 2011 where adults were sleeping next to infants, with 3 deaths occurring in the first 3 weeks of November alone (NPR, 11/30/11).*

***Babies who sleep in unsafe sleep environments, including adult beds, are at a 40 times greater risk of dying.***

*- Cribsforkids.org*

# ALL SLEEP RELATED DEATHS

72 deaths

## Key Findings:

- The category is a combination of all sleep related deaths SIDS, Asphyxia, Undetermined, Medical condition and other causes
- Infants were found to be **on top of a person or object (19), under a person or object (9), between a person or object (3), wedged (1), pressed(4), or it was unknown as to the circumstances (29)**
- **69 of the 72 children (95%) were under 1 year old, with 81% (59 cases) of the deaths occurring in the first 5 months of life**
- **50 of the infants under 12 months of age were NOT sleeping in a crib or bassinette and 27 infants were found NOT sleeping on their backs**
- **43 infants were sleeping with other people** (bed-sharing/co-sleeping), with 11 of the adults co-sleeping classified as obese
- **Unsafe bedding or toys were noted in 19 cases, and caregivers fell asleep while breast or bottle feeding in 3 cases**
- **Male infants and children died at twice the rate of females**
- Medical conditions were noted in 5 of the deaths
- *Though mandated by the state, **Infant Death Scene Reports were received in less than half (40 cases) of the 99 total infant death cases in 2010***

## Recommendations (SIDS, Suffocation/Asphyxia and Undetermined):

- Increase public awareness about the dangers associated with infants sleeping in adult beds and other unsafe sleep environments through simple, concise messages that family members and caregivers can remember easily. *(See Addendum 3)*
- Financially support the “Cribs for Kids” program which has been shown to decrease rollover occurrences by 50%. *In 2011, the Mississippi SIDS Alliance distributed 401 cribs at a total cost of \$26,060.99. Each crib is purchased for \$49.99 with a \$15 fee for shipping. (See Addendum 4)*
- Promote adherence to the recently published *Expansion of Recommendations for a Safe Infant Sleeping Environment* by the American Academy of Pediatrics. *(See Addendum 5)*
- Continue to educate the CMEIs (providing necessary funding) on **uniform completion of scene investigation reports and the legal requirement** to complete death scene investigations.

# DROWNING

13 deaths

5 preventable

## Key Findings:

- **61% (8 cases) of the drowning deaths were children under 5 years old**
- 10 children were male, 3 were female
- 5 children drowned in a creek, river, pond or lake, 5 in a swimming pool/hot tub/spa, 1 in a bathtub and 2 were unknown as to place of drowning based on information received
- At least 1 of the 13 children *could* swim
- Flotation devices were not worn in any of the 13 deaths
- Child Protective Services took action in 1 case

## Recommendations:

- Support public education and awareness campaigns about water safety, placing special emphasis on the need for constant adult supervision.
- Encourage the use of flotation devices when in and around open bodies of water – especially those that may be unstable or unknown in nature, i.e., creeks, rivers, lakes and ponds.
- Persuade communities to seek ways to make swimming lessons and water safety classes more readily available to children and parents – especially when children are under age 5.
- Utilize the “Watch Out” program provided by Mississippi’s Emergency Medical Services for Children (EMSC) regarding water safety (*see Addendums 7A and B*), as well as Risk Watch® Unintentional Injuries curriculum in all schools pre-school through eighth grade, a free curriculum available through the Mississippi Fire Marshal’s Office (*see Addendum 10*).





# WEAPON RELATED

32 deaths

23 preventable

## Key Findings:

- **Firearms were the weapon used in 20 of the 32 deaths**, followed by “Sharp” object (1), Blunt object (3), Person’s body part (2), Other (1), and Unknown (5)
- **More than two-thirds** of all deaths in the category **were male** (22 of 32)
- 66% (21 of 32) of the children were African American, 34% White (11 of 32), and 1 of Hispanic origin
- **22 cases were ruled Homicide**, 4 were Suicide, 4 were Accidental, with 1 Undetermined and 1 Pending

## Firearm Specific Findings:

- **17 of the 20 deaths** (85%) due to firearms **were children 10 to 17 years old**, with the largest portion (**65%, 13 cases**) **from 15 to 17 years old**
- Self-injury occurred in 8 cases, intimate partner violence in 4 cases, argument in 4 cases, random violence in 2 cases, self-defense in 1 case, victim was bystander in 2 cases, and child was playing with weapon in one case – factors are not mutually exclusive
- Handguns were used in 15 cases, a Shotgun was used in 1 case and it could not be determined what type of firearm was used in the other cases with data provided the CDRP

## Recommendations:

- Encourage gun safety education for youth and parents, as well the use of the free unintentional injury curriculum, Risk Watch®, available through the Mississippi State Fire Marshal’s Office. (*See Addendums 8 and 10*)
- Encourage community based violence prevention programs, focusing especially on teens showing signs of anger management or conflict resolution issues.
- Work with Alternative Schools in all districts to assess, treat and develop effective strategies to prevent acts of violence, possibly using resources available through the Department of Human Services (DHS), the Department of Mental Health or local Families First Resource Centers.
- Support education on the warning signs for suicide and intervention strategies provided through Mississippi Youth Suicide Prevention Program and Mississippi Department of Mental Health.
- Widely publicize helplines like **(800) 273-TALK** (the National Suicide Prevention Crisis Line), before it is too late. (*See Addendum 9*)

# POISONING/OVERDOSE/ACUTE INTOXICATION 4 deaths 1 preventable

## Key Findings:

- 1 child was under the age of 1 and 3 were age 15 to 17
- Prescription drugs were used in 1 case, a cleaning substance was used in 1 case, and it is unknown as to the type of substance used in the other 2 cases with data presented to the panel
- All 4 deaths were ruled Accidental

## Recommendations:

- Encourage education and awareness of Poison Prevention Programs. Free materials are offered by the Poison Control Center and may be obtained by calling 1-800-222-1222.
- Support substance abuse treatment programs and educate parents, caregivers and children on the warning signs of alcohol and drug abuse.
- Encourage the use of Risk Watch® Unintentional Injuries curriculum in all schools pre-school through eighth grade, a free curriculum available from the Mississippi Fire Marshal's Office addressing the eight leading causes of childhood unintentional injury and death. (*See Addendum 10*)

**Save this number.  
You might save a life.**



**Key Findings:**

- **Fire deaths fell by 60% in comparison to the previous year's annual report** (25 cases to 10)
- **7 of the 10 deaths in this category were children ages 1 to 4** and all 10 deaths were African American
- 7 of the 10 deaths were children living in a single mother household (no father or other adults in the home), 1 case was the child of a single mother with grandparents in the home, 1 case was the child of a single mother living with friends, and 1 family structure was not reported\*
- 1 child died while in a trailer/mobile home, 6 in a single home dwelling, 1 in a duplex, and 1 unknown
- Barriers prevented safe exit in at least 3 cases, and a child was not supervised in at least 1 case
- Working smoke alarms were found in 2 cases, but it is unknown if they activated at the time of the fire, additionally smoke alarms were found in 2 cases, but it is unknown if they were operational\*

**Recommendations:**

- Encourage the use of the Mississippi State Department of Health's Mobile Fire Safety House in all elementary school settings. The MS EMSC has developed a fire safety program that includes a two-story mobile unit that simulates a house. It is equipped with heated doors, smoke alarms, and a fire escape ladder. Children are taught fire drills, smoke alarm use and maintenance, and the proper way to exit a burning house. (*See Addendums 7A and B*)
- Encourage the use of Risk Watch® Unintentional Injuries curriculum in all schools pre-school through eighth grade, a free curriculum through the State Fire Marshal's Office addressing the eight leading causes of childhood unintentional injury and death. (*See Addendum 10*)
- Offer incentives to local fire departments for developing, expanding, and/or implementing fire safety education activities, particularly for elementary schools and other child care facilities.
- Encourage adoption and enforcement of laws governing smoke alarm installation, testing, and inspection in all homes, including new and used manufactured homes focusing also on non-owner occupied and rental dwellings.
- Consider legislation requiring smoke alarms in all single family dwellings as well as residential sprinklers in all dwellings.
- Support and explore the effects of fire safety grants such as the three federal grants totaling almost \$2 million awarded to the Mississippi State Fire Marshal's Office. These grants provide free conventional smoke alarms and hearing impaired alert devices to owner-occupied homes.
- Obtaining similar grants to promote fire safety and fire prevention strategies. The above program has already documented approximately 25 lives saved. (*See Addendum 10*)

\* Obtained from the State Fire Marshal's Office

## OTHER CAUSES

9 deaths

9 preventable

### Key Findings:

- 1 case was due to and Animal Attack, 1 case a fall or crush, 1 case due to Exposure and 6 Other causes
- All cases were ruled Accidental
- **Scene investigations were received in only 3 cases and autopsies were performed in 5 cases**

### Recommendations:

- Continue to encourage education and awareness of injury prevention strategies, placing special emphasis on the need for adult supervision in young children.
- Continue to stress to the public the importance of adult supervision at all times for infants and young children.
- Educate the public by making the child abuse helpline #s available so that intervention is possible before it is too late.



# CHILD ABUSE/NEGLECT/NEGLIGENCE 54 deaths

51 preventable

## Key Findings:

- Intentional, physical child abuse caused 9 deaths, neglect caused 2 deaths, and “other negligence” caused 43 deaths
- Events triggering physical abuse were unknown or “other” in 8 cases, with a **toilet training mishap acting as trigger in 1 case**
- **All but 1 case of physical abuse occurred in children under 5 years of age**
- Biological parents were responsible for the act of child abuse in 4 cases, parent’s partner in 3 cases and “other” in 1 case
- **Child Protective Services had an open case at the time of death in 1 case, found evidence of prior abuse in 2 cases, placed the child outside of the home in 1 case, and took action because of the death in 3 cases**
- “Other Negligence” (not neglect) was cited as an unintentional cause of death in 20 cases, and an unintentional contributing factor in 19 cases
- Poor or Absent Supervision was cited as an unintentional cause of death in 10 cases, and an unintentional contributing factor in 7 cases

## Recommendations:

- Continue to support educational and awareness opportunities regarding child abuse prevention.
- Consider adopting dangerous animal ordinances as written and implemented by the City of Cleveland, MS. Requirements include: being 21-years of age, \$100,000 liability insurance, mandatory spay/neuter and posting a "Dangerous Dog" sign.
- Widely publicize **(800) 222-8000** as the Child Abuse Hotline # for parents or caregivers in crisis.
- Support the recommendations of Mississippi’s Youth Suicide Prevention Council.
- Consider parenting classes or outreach programs specifically geared to young parents or caregivers, possibly providing some sort of financial, tax or other incentive for attendance.

## LEGISLATIVE RECOMMENDATIONS

As members of the Child Death Review Panel, and with the best interest in the health and welfare of our state's children, we support the following upcoming legislation for the 2011 session:

1. Support the Child Death Review Panel through the Mississippi State Department of Health to allow greater strides in the reduction of child deaths in our state, *in accordance with* recommendation 18c of the revised American Academy of Pediatrics 2011 Expansion of Recommendations for a Safe Sleeping Environment. *(See Addendum 5)*
2. Support an aggressive public education campaign regarding safe sleep environments for infants and injury prevention strategies for Mississippi's children. *(See Addendums 3 and 5)*
3. Financially support the "Cribs for Kids" program through the Mississippi SIDS Alliance as it has been shown to reduce rollover deaths due to co-sleeping by 50%. *(See Addendum 4)*
4. Continue to support legislation to fully fund the State Medical Examiner's office, as well as the Child Death Review process which, though mandated, is not funded.
5. Promote the utilization of programs targeting comprehensive injury prevention education which is currently available through Mississippi's Emergency Medical Services for Children (EMSC). *(See Addendums 7A and B)*
6. Support legislation banning *all* cell phone usage and/or support legislation regarding distracted driving in teen drivers unless used for emergency purposes. *(See Addendum 1)*

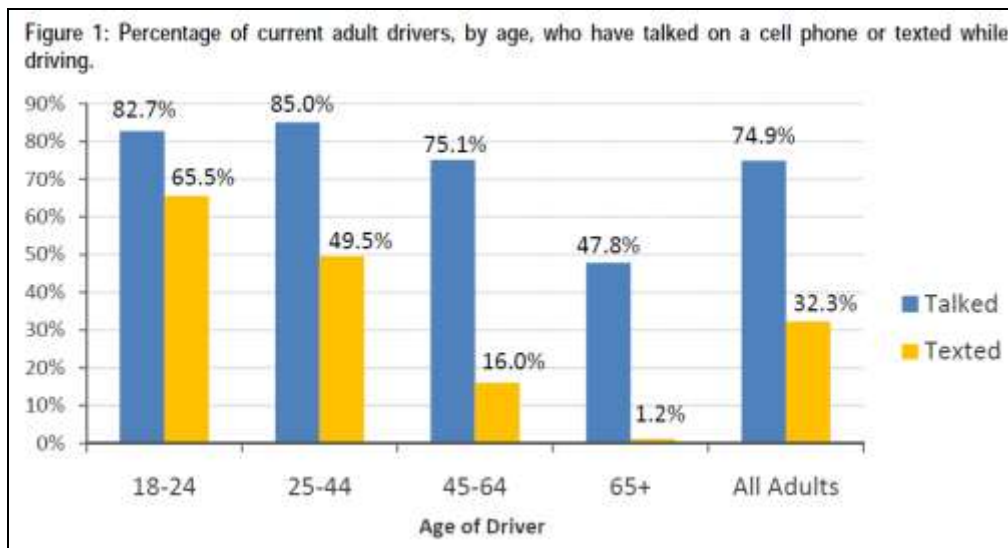


**Issue**

Unintentional injuries are the leading cause of death for persons 1-44 years of age in Mississippi, and motor vehicle accidents are the leading cause of injury-related deaths in the state. Mississippi has the highest motor vehicle fatality death rate in the nation, according to the State Department of Health. The growing use of mobile communication devices such as cell phones has provided more opportunities for driver distraction and consequently, motor vehicle accidents.

Several states have enacted legislation designed to prevent accidental deaths due to distracted driving. The Center for Mississippi Health Policy commissioned the Social Science Research Center at Mississippi State University to conduct a survey of Mississippi adults to assess their behaviors, attitudes, and opinions about distracted driving and to research policy options considered in other states. This issue brief summarizes the results of this research. The complete final report and policy brief produced by Dr. Ginger Cross and her colleagues at Mississippi State University can be found on the Center's web site at [www.mshealthpolicy.com](http://www.mshealthpolicy.com).

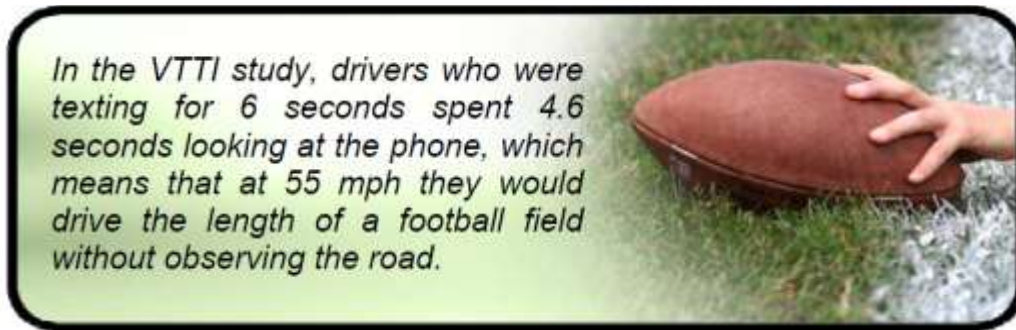
Distracted driving is a common occurrence in Mississippi, with three-quarters of current adult drivers reporting they have talked on a cell phone while driving, and one-third admitting they have read, written, or sent a text message while driving. The number of people reporting riding with a driver who was distracted is much higher. Almost nine out of ten (88.6%) adults told researchers they had been a passenger in a vehicle driven by someone talking on a cell phone, and more than half (53.2%) said they had ridden with a driver who was texting or emailing. Younger drivers are significantly ( $p < 0.001$ ) more likely to report they had talked on a cell phone or texted while driving (Figure 1).



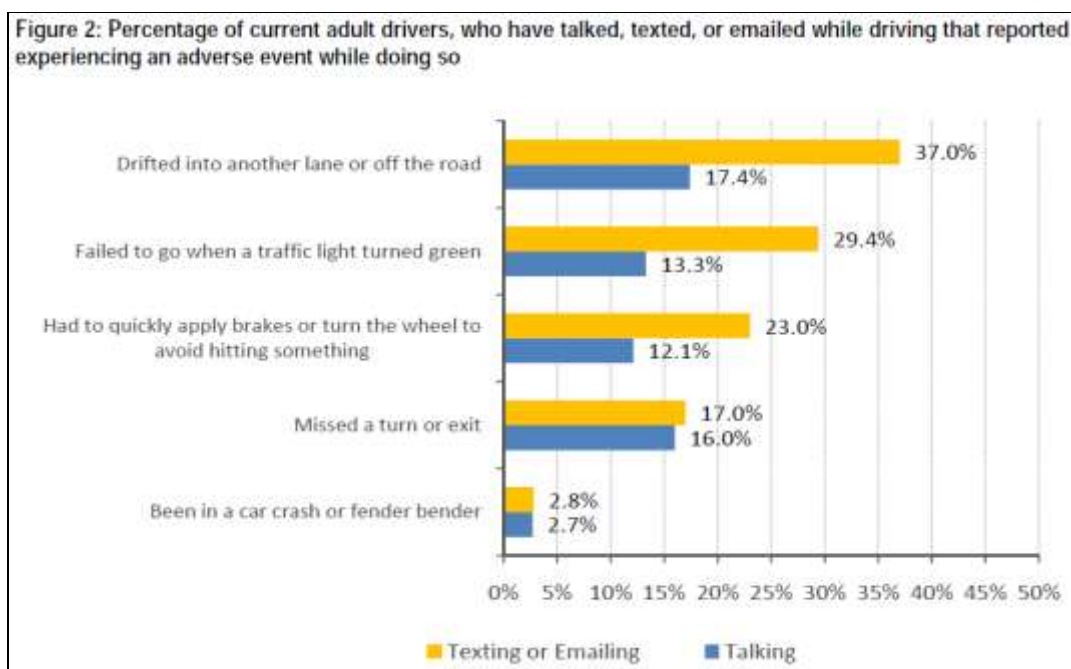
**Frequency of Distracted Driving**

Texting while driving is of particular concern because it involves all three types of distractions: visual (looking at the cell phone while reading or composing a message), manual (holding the phone and typing messages), and cognitive (thinking about the message being read or composed). A 2009 research report from the Virginia Tech Transportation Institute (VTTI) noted that drivers were at a 23 times higher crash risk when texting while driving.

*Addendum 1, continued:*



Almost half (49.3%) of current drivers who have talked, texted, or emailed while driving report that while doing so, they have experienced an adverse event, the most frequent being drifting into another lane or off the road.



### State Policies & Legislation

Nationwide, 30 states and the District of Columbia have passed texting bans for all drivers, and eight more have passed texting bans for some drivers. However, since officers might have difficulty distinguishing between a driver who is texting and a driver dialing a cell phone to make a call, it has been noted that texting bans are difficult to enforce without accompanying bans on hand-held cell phone calls.

### Enforcement

One of the key issues in passing distracted driving legislation is **enforcement**. The dangers of hands-free devices have been noted in experimental and crash-based studies, though their use can be difficult to detect. Bans on hand-held calling and texting might be more easily enforced since officers can visually identify usage of the phone. Some have recommended the use of educational campaigns and/or in-vehicle technologies as alternative means of curbing the use of hands-free devices. Bans on all cell phone use, however, while difficult to enforce on a broad scale, do send a strong message of zero tolerance that may be useful for some groups and/or locations.



## Top Booster Seat Tips

- Use a booster seat with the vehicle lap AND shoulder safety belts until your child passes the Safety Belt Fit Test.
- Vehicle seat belts are designed to fit an average-sized adult. To get the best protection from a seat belt, children usually need a booster until they are about 4 feet 9 inches tall and weigh between 80 and 100 pounds. Many children will be between 8 and 12 years of age before they meet these height and weight requirements.
- Use a booster seat correctly in a back seat every time your child rides in a car.
- Older kids get weighed and measured less often than babies, so check your child's growth a few times a year. Generally, kids need to use a booster until they are about 4 feet 9 inches tall and weigh between 80 and 100 pounds.
- Booster seats are not installed the same way car seats are. Booster seats sit on the vehicle seat and are used to properly position the adult seat belt for an older child.
- A booster seat uses no harness. It uses the vehicle's lap AND shoulder belts only. Be sure the seat belt is properly buckled.
- Never place the shoulder belt under the child's arm or behind the child's back.
- Be sure all occupants wear safety belts correctly every time. Children learn from adult role models.
- Tell all drivers who transport your big kid that booster seat use is a must when your child is in their vehicles.
- Treat seat belts as you would any cord or rope. Do not allow children to play with them at any time.



Proud Program Supporter  
General Motors  
**FOUNDATION**

Addendum 3:

**Safe Sleep messages don't have to be lengthy or detailed to get the point across!**

The following graphic is page 3 of a 12 page brochure that was developed by the Public Health Agency of Canada. The brochure has been praised for its combining of many best practices for infant sleep safety into four simple steps.

**Safe Sleep for Your Baby** is available on Internet at the following address: <http://www.publichealth.gc.ca/safesleep>.

★ Creating a **Safe Sleep Environment** for your baby will help him or her sleep safely and reduce the risk of Sudden Infant Death Syndrome (SIDS).

Here are Four Steps that you can take to help create a Safe Sleep Environment for your baby:

-  Provide a **smoke free environment** – both before and after birth.
-  Always place your baby on his or her **back to sleep** – night time and nap time.
-  Place your baby to sleep in a **crib next to the adult's bed** for first 6 months.
-  Provide a **safe crib environment** that has no toys or loose bedding (use only a fitted sheet).

**Addendum 4:**



**A** alone

Keep your baby's sleep area close but separate from where others sleep. Your baby should not sleep with others in a bed, on a couch, or in a chair.



**B** back is best

Your baby should be placed to sleep on his or her back in a safety-approved crib on a firm mattress every time during naps and at nighttime.



**C** in an uncluttered crib

Remove all loose bedding, comforters, quilts, sheepskins, stuffed animals, bumpers, wedges, and pillows from your baby's crib.



it's easy as A, B, C



**1** cause of death

SIDS and accidental suffocation are the leading causes of death in babies 1 to 12 months of age.



**2** months of age

Babies who are 2 to 4 months of age are at the highest risk for SIDS and accidental suffocation.



**3** tell people

Share the A, B, C, 1, 2, 3's with at least 3 people. Education is key to keeping babies safe.

**Cribs for Kids®** is a safe-sleep education program for low-income families to help reduce the risk of injury and death of infants due to unsafe sleep environments.

Cribs for Kids® currently has 250 Partner Programs in 42 states throughout the country which provide a GRACO Pack N Play® crib and educational materials regarding 'safe sleeping' and other important safety tips to protect your baby. Since 1998, through the donation of thousands of cribs, Cribs for Kids® has been making an impact on the rates of babies dying of Sudden Infant Death Syndrome (SIDS) and accidental suffocation.

**In 2011, the Mississippi SIDS Alliance distributed 401 cribs at a total cost of \$26,060.99.** Each crib is purchased for \$49.99 with a \$15 fee for shipping.



**SIDS and Other Sleep-Related Infant Deaths: Expansion of Recommendations for a Safe Infant Sleeping Environment  
Downloaded from [pediatrics.aappublications.org](http://pediatrics.aappublications.org) on October 18, 2011**

For full report, visit <http://aappolicy.aappublications.org/cgi/reprint/pediatrics;128/5/1030.pdf>

**RECOMMENDATIONS:**

1. **Back to sleep for every sleep**—To reduce the risk of SIDS, infants should be placed for sleep in a supine position (wholly on the back) for every sleep by every caregiver until 1 year of life. Side sleeping is not safe and is not advised.
  - a. The supine sleep position does not increase the risk of choking and aspiration in infants, even those with gastroesophageal reflux, because they have protective airway mechanisms. Infants with gastroesophageal reflux should be placed for sleep in the supine position for every sleep, with the rare exception of infants for whom the risk of death from complications of gastroesophageal reflux is greater than the risk of SIDS (ie, those with upper airway disorders, for whom airway protective mechanisms are impaired), including infants with anatomic abnormalities such as type 3 or 4 laryngeal clefts who have not undergone anti-reflux surgery. Elevating the head of the infant's crib while the infant is supine is not recommended. It is ineffective in reducing gastroesophageal reflux; in addition, it might result in the infant sliding to the foot of the crib into a position that might compromise respiration.
  - b. Preterm infants are at increased risk of SIDS, and the association between prone sleep position and SIDS among low birth weight infants is equal to, or perhaps even stronger than, the association among those born at term. Preterm infants and other infants in the NICU should be placed in the supine position for sleep as soon as the infant is medically stable and significantly before the infant's anticipated discharge, by 32 weeks' postmenstrual age. NICU personnel should endorse safe-sleeping guidelines with parents of infants from the time of admission to the NICU.
  - c. There is no evidence that placing infants on the side during the first few hours of life promotes clearance of amniotic fluid and decreases the risk of aspiration. Infants in the newborn nursery and infants who are rooming in with their parents should be placed in the supine position as soon as they are ready to be placed in the bassinet.
  - d. Although data to make specific recommendations as to when it is safe for infants to sleep in the prone or side position are lacking, studies that have established prone and side sleeping as risk factors for SIDS include infants up to 1 year of age. Therefore, infants should continue to be placed supine until 1 year of age. Once an infant can roll from supine to prone and from prone to supine, the infant can be allowed to remain in the sleep position that he or she assumes.
2. **Use a firm sleep surface**—A firm crib mattress, covered by a fitted sheet, is the recommended sleeping surface to reduce the risk of SIDS and suffocation.
  - a. **A crib, bassinet, or portable crib/play yard that conforms to the safety standards** of the Consumer Product Safety Commission and ASTM International (formerly the American Society for Testing and Materials) **is recommended**. In addition, parents and providers should check to make sure that the product has not been recalled. Cribs with missing hardware should not be used, and the parent or provider should not attempt to fix broken components of a crib, because many deaths are associated with cribs that are broken or have missing parts (including those that have presumably been fixed). Local organizations throughout the United States can help to provide low-cost or free cribs or play yards for families with financial constraints.
  - b. **Only mattresses designed for the specific product should be used**. Mattresses should be firm and maintain their shape even when the fitted sheet designated for that model is used, such that there are no gaps between the mattress and the side of the crib, bassinet, portable crib, or play yard. Pillows or cushions should not be used as substitutes for mattresses or in addition to a mattress. Soft materials or objects such as pillows, quilts, comforters, or sheepskins, even if covered by a sheet, should not be placed under a sleeping infant. If a mattress cover to protect against wetness is used, it should be tightly fitting and thin.
  - c. **Infants should not be placed for sleep on beds because of the risk of entrapment and suffocation**. In addition, portable bed rails should not be used with infants because of the risk of entrapment and strangulation.
  - d. **The infant should sleep in an area free of hazards**, such as dangling cords, electric wires, and window-covering cords, because they might present a strangulation risk.
  - e. **Sitting devices, such as car safety seats, strollers, swings, infant carriers, and infant slings, are not recommended for routine sleep** in the hospital or at home. Infants who are younger than 4 months are particularly at risk, because they might assume positions that can create risk of suffocation or airway obstruction. When infant slings and cloth carriers are used for carrying, it is important to ensure that the infant's head is up and above the fabric, the face is visible, and that the nose and mouth are clear of obstructions. After nursing, the infant should be repositioned in the sling so that the head is up, is clear of fabric, and is not against the adult's body or the sling. If an infant falls asleep in a sitting device, he or she should be removed from the product and moved to a crib or other appropriate flat surface as soon as is practical. Car safety seats and similar products are not stable on a crib mattress or other elevated surfaces.
3. **Room-sharing without bed-sharing is recommended**— There is evidence that this arrangement decreases the risk of SIDS by as much as 50%. In addition, this arrangement is most likely to prevent suffocation, strangulation, and entrapment that might occur when the infant is sleeping in an adult bed.
  - a. **The infant's crib, portable crib, play yard, or bassinet should be placed in the parents' bedroom close to the parents' bed**. This arrangement reduces SIDS risk and removes the possibility of suffocation, strangulation, and entrapment that might occur when the infant is sleeping in the adults' bed. It also allows close parental proximity to the infant and facilitates feeding, comforting, and monitoring of the infant.
  - b. **Devices promoted to make bed-sharing "safe"** (eg, in-bed co-sleepers) **are not recommended**.

*Addendum 5 continued:*

- c. Infants may be brought into the bed for feeding or comforting but should be returned to their own crib or bassinet when the parent is ready to return to sleep. **Because of the extremely high risk of SIDS and suffocation on couches and armchairs, infants should not be fed on a couch or armchair when there is a high risk that the parent might fall asleep.**
  - d. Epidemiologic studies have not demonstrated any bed sharing situations that are protective against SIDS or suffocation. Furthermore, not all risks associated with bed sharing, such as parental fatigue, can be controlled. Therefore, the American Academy of Pediatrics (AAP) does not recommend any specific bed-sharing situations as safe. Moreover, there are specific circumstances that, in epidemiologic studies, substantially increase the risk of SIDS or suffocation while bed-sharing. In particular, it should be stressed to parents that they **avoid the following situations at all times:**
    - i. **Bed-sharing when the infant is younger than 3 months**, regardless of whether the parents are smokers or not.
    - ii. **Bed-sharing with a current smoker** (even if he or she does not smoke in bed) or if the mother smoked during pregnancy.
    - iii. **Bed-sharing with someone who is excessively tired.**
    - iv. **Bed-sharing with someone who has or is using medications** (eg, certain antidepressants, pain medications) or substances (eg, alcohol, illicit drugs) that could impair his or her alertness or ability to arouse.
    - v. **Bed-sharing with anyone who is not a parent**, including other children.
    - vi. **Bed-sharing with multiple persons.**
    - vii. **Bed-sharing on a soft surface** such as a waterbed, old mattress, sofa, couch, or armchair.
    - viii. **Bed-sharing on a surface with soft bedding, including pillows, heavy blankets, quilts, and comforters.**
  - e. It is prudent to provide separate sleep areas and avoid co-bedding for twins and higher order multiples in the hospital and at home.
4. **Keep soft objects and loose bedding out of the crib** to reduce the risk of SIDS, suffocation, entrapment, and strangulation.
    - a. Soft objects, such as pillows and pillow-like toys, quilts, comforters, and sheepskins, should be kept out of an infant's sleeping environment.
    - b. Loose bedding, such as blankets and sheets, might be hazardous and should not be used in the infant's sleeping environment.
    - c. Because there is no evidence that bumper pads or similar products that attach to crib slats or sides prevent injury in young infants and because there is the potential for suffocation, entrapment, and strangulation, these products are not recommended.
    - d. Infant sleep clothing that is designed to keep the infant warm without the possible hazard of head covering or entrapment can be used.
  5. **Pregnant women should receive regular prenatal care**—There is substantial epidemiologic evidence linking a lower risk of SIDS for infants whose mothers obtain regular prenatal care.
  6. **Avoid smoke exposure during pregnancy and after birth**— Both maternal smoking during pregnancy and smoke in the infant's environment after birth are *major risk factors* for SIDS.
    - a. Mothers should not smoke during pregnancy or after the infant's birth.
    - b. There should be no smoking near pregnant women or infants. Encourage families to set strict rules for smoke free homes and cars and to eliminate secondhand tobacco smoke from all places in which children and other nonsmokers spend time.
    - c. The risk of SIDS is particularly high when the infant bedshares with an adult smoker.
  7. **Avoid alcohol and illicit drug use during pregnancy and after birth**—There is an increased risk of SIDS with prenatal and postnatal exposure to alcohol or illicit drug use.
    - a. Mothers should avoid alcohol and illicit drugs periconceptionally and during pregnancy.
    - b. Parental alcohol and/or illicit drug use in combination with bed-sharing places the infant at particularly high risk of SIDS.
  8. **Breastfeeding is recommended.**
    - a. Breastfeeding is associated with a reduced risk of SIDS. If possible, mothers should exclusively breastfeed or feed with expressed human milk (ie, not offer any formula or other non-human milk-based supplements) for 6 months, in alignment with recommendations of the AAP.
    - b. The protective effect of breastfeeding increases with exclusivity. However, any breastfeeding has been shown to be more protective against SIDS than no breastfeeding.
  9. **Consider offering a pacifier at nap time and bedtime**— Although the mechanism is yet unclear, studies have reported a protective effect of pacifiers on the incidence of SIDS. The protective effect persists throughout the sleep period, even if the pacifier falls out of the infant's mouth.
    - a. The pacifier should be used when placing the infant for sleep. It does not need to be reinserted once the infant falls asleep. If the infant refuses the pacifier, he or she should not be forced to take it. In those cases, parents can try to offer the pacifier again when the infant is a little older.
    - b. Because of the risk of strangulation, pacifiers should not be hung around the infant's neck. Pacifiers that attach to infant clothing should not be used with sleeping infants.
    - c. Objects such as stuffed toys, which might present a suffocation or choking risk, should not be attached to pacifiers.
    - d. For breastfed infants, delay pacifier introduction until breastfeeding has been firmly established, usually by 3 to 4 weeks of age.
    - e. There is insufficient evidence that finger-sucking is protective against SIDS.
  10. **Avoid overheating**—Although studies have revealed an increased risk of SIDS with overheating, the definition of overheating in these studies varied. Therefore, it is difficult to provide specific room temperature guidelines for avoiding overheating.
    - a. In general, infants should be dressed appropriately for the environment, with no more than 1 layer more than an adult would wear to be comfortable in that environment.
    - b. Parents and caregivers should evaluate the infant for signs of overheating, such as sweating or the infant's chest feeling hot to the touch.
    - c. Overbundling and covering of the face and head should be avoided. There is currently insufficient evidence to recommend the use of a fan as a SIDS risk reduction strategy.

*Addendum 5 continued:*

11. **Infants should be immunized in accordance with recommendations of the AAP and the Centers for Disease Control and Prevention**— There is no evidence that there is a causal relationship between immunizations and SIDS. Indeed, recent evidence suggests that immunization might have a protective effect against SIDS. Infants should also be seen for regular well-child checks in accordance with AAP recommendations.
12. **Avoid commercial devices marketed to reduce the risk of SIDS**—These devices include wedges, positioners, special mattresses, and special sleep surfaces. There is no evidence that these devices reduce the risk of SIDS or suffocation or that they are safe.
  - a. The AAP concurs with the US Food and Drug Administration and Consumer Product Safety Commission that manufacturers should not claim that a product or device protects against SIDS unless there is scientific evidence to that effect.
13. **Do not use home cardiorespiratory monitors as a strategy to reduce the risk of SIDS**— Although cardiorespiratory monitors can be used at home to detect apnea, bradycardia, and, when pulse oximetry is used, decreases in oxyhemoglobin saturation, there is no evidence that use of such devices decreases the incidence of SIDS. They might be of value for selected infants but should not be used routinely. There is also no evidence that routine in-hospital cardiorespiratory monitoring before discharge from the hospital can identify newborn infants at risk of SIDS.
14. **Supervised, awake tummy time is recommended** to facilitate development and to minimize development of positional plagiocephaly.
  - a. Although there are no data to make specific recommendations as to how often and how long it should be undertaken, supervised, awake tummy time is recommended on a daily basis, beginning as early as possible, to promote motor development, facilitate development of the upper body muscles, and minimize the risk of positional plagiocephaly.
  - b. Diagnosis, management, and other prevention strategies for positional plagiocephaly, such as avoidance of excessive time in car safety seats and changing the infant's orientation in the crib, are discussed in detail in the recent AAP clinical report on positional skull deformities.
15. **Health care professionals, staff in newborn nurseries and neonatal intensive care nurseries, and child care providers should endorse the SIDS risk-reduction recommendations from birth.**
  - a. Staff in NICUs should model and implement all SIDS risk reduction recommendations as soon as the infant is clinically stable and significantly before anticipated discharge.
  - b. Staff in newborn nurseries should model and implement these recommendations beginning at birth and well before anticipated discharge.
  - c. **All physicians, nurses, and other health care professionals should receive education on safe infant sleep.**
  - d. **All child care providers should receive education on safe infant sleep and implement safe sleep practices.** It is preferable that they have written policies.
16. **Media and manufacturers should follow safe-sleep guidelines in their messaging and advertising.** Media exposures (including movie, television, magazines, newspapers, and Web sites), manufacturer advertisements, and store displays affect individual behavior by influencing beliefs and attitudes. Media and advertising messages contrary to safe-sleep recommendations might create misinformation about safe sleep practices.
17. **Expand the national campaign to reduce the risks of SIDS to include a major focus on the safe sleep environment and ways to reduce the risks of all sleep related infant deaths,** including SIDS, suffocation, and other accidental deaths. Pediatricians, family physicians, and other primary care providers should actively participate in this campaign.
  - a. **Public education should continue for all who care for infants, including parents, child care providers, grandparents, foster parents, and babysitters,** and should include strategies for overcoming barriers to behavior change.
  - b. **The campaign should continue to have a special focus on the black and American Indian/Alaskan Native populations** because of the higher incidence of SIDS and other sleep-related infant deaths in these groups.
  - c. The campaign should **specifically include strategies for increasing breastfeeding while decreasing bed-sharing and eliminating tobacco smoke exposure.**
  - d. These recommendations should be introduced before pregnancy and ideally in secondary school curricula for both boys and girls. The importance of maternal preconceptional health and avoidance of substance use (including alcohol and smoking) should be included in this training.
  - e. Safe-sleep messages should be reviewed, revised, and reissued at least every 5 years to address the next generation of new parents and products on the market.
18. **Continue research and surveillance** on the risk factors, causes, and pathophysiological mechanisms of SIDS and other sleep related infant deaths, with the ultimate goal of eliminating these deaths entirely.
  - a. **Education campaigns need to be evaluated, and innovative intervention methods need to be encouraged and funded.**
  - b. Continued research and improved surveillance on the etiology and pathophysiological basis of SIDS should be funded.
  - c. **Standardized protocols for death-scene investigations should continue to be implemented.** Comprehensive autopsies that include full external and internal examination of all major organs and tissues (including the brain), complete radiographs, metabolic testing, and toxicology screening should be performed. **Training about how to conduct comprehensive death-scene investigation offered to medical examiners, coroners, death-scene investigators, first responders, and law enforcement should continue, and resources for maintaining training and conduct of these investigations need to be allocated. In addition, child death reviews, with involvement of pediatricians and other primary care providers, should be supported and funded.**
  - d. Improved and widespread surveillance of SIDS and SUID cases should be implemented and funded.
  - e. Federal and private funding agencies should remain committed to all aspects of the aforementioned research.

*Addendum 6:*

**Academic Forensic Pathology  
The Official Publication of the National Association of Medical Examiners**

**Prevalence of SIDS and Diagnostic Shift to Asphyxia and Undetermined/Unknown**

*(Only portions of the article related to diagnostic shift in sleep related death classification have been included.)*

United States vital statistics demonstrate trends of 1) reduced classification of deaths as SIDS, 2) increased diagnosis of infant asphyxial deaths, and 3) increased number of infant deaths classified as unknown cause of death.

According to ICD (International Statistical Classification of Diseases) coding rules, the number of infants who “die of SIDS” is the sum of all death certificates that contain SIDS, SUID or similar language. Some infant DCs (Death Certificates) are explicit about the absence of an identifiable cause of death (e.g. “undetermined cause of death”). **Although SIDS and SUID are by definition unexplained, DCs that explicitly indicate an unidentified Cause of Death (COD) are coded separately as unknown cause.** Asphyxia is a discrete injury process and, when entered as COD on a DC, is coded as W75.

Malloy and MacDorman, and Shapiro-Mendoza et al. analyzed national mortality data through 2001. This was the decade following the American Academy of Pediatrics recommendation favoring the supine sleep position for infants (the “Back to Sleep” campaign started in 1994). The all-cause postneonatal death rate declined at an average annual rate of 3.8%. SIDS deaths declined at an annual rate of 8.6%, from 4593 to 2,047. Deaths attributed to asphyxia or unknown cause increased annually over the 1992-2001 time period. The annual number of infant homicides was stable.

These mortality trends occurred during a time of significant change in infant sleep position. Approximately 70% of infants were put to sleep prone in 1992; the prone rate was approximately 20% by 1997 and had stabilized in the mid to low teens in the decade starting with 2000. The prone put to sleep position was 11.4% in 2009.

The declining all-cause postneonatal death rate stabilized during the last three years (1999-2001) of the studies’ time period and corresponded to a stabilization of the now dominant supine sleep position. This suggested that the impact of Back to Sleep had ended. During the same three years, the **SIDS classification rate continued to decline** and the **asphyxia and unknown/unspecified rates continued to increase**. Authors (of 2 prior studies) cautiously proposed that some deaths that would have previously been attributed to SIDS on a DC were instead attributed to asphyxia or to an unknown cause. An additional focused review of infant death rate due to asphyxia, through 2004, revealed a continuing increase in the diagnosis of infant asphyxia deaths.

**The diagnostic shift was due, at least in part, to incorporating scene investigation** into the previously autopsy-based culture of infant death investigation. Rigorous scene investigation is now standard practice in investigation of sudden unexpected infant death in the US. [Retrospective studies starkly demonstrate changes in death certification practice associated with detailed scene investigation.] There was a marked reduction in use of SIDS as cause of death offset by a marked increase in deaths attributed to asphyxia or an unknown cause. Remarkably, the Michigan study demonstrated one or more exogenous risk factors for asphyxia (overlying or entrapment, bed/couch sharing, sleep position with obstruction of the nose and mouth, soft bedding, coverage by bedding) in 85% of cases.

It must be reinforced that these exogenous factors are environmental characteristics that are risk factors for death by an asphyxial mechanism. This includes rebreathing of exhaled air, accidental smothering due to prone sleep position or entanglement in bedding, and overlying by bed/couchsharing adults or children. Studies of diagnostic shift indicate that thoughtful interpretation of every infant’s environment around the time of death resulted in more deaths being classified as asphyxia in nature.

Death investigators are increasingly adept at recognizing a grey zone of **possible** asphyxial deaths based on environmental risk factors but without definite overlying or entrapment. **Current COD terminology on DCs for these grey zone cases runs the gamut from “SIDS” to “possible asphyxia” to “sudden unexplained infant death” to “undetermined”, among others. . .**

In the absence of an identifiable cause and manner of death, the unexplained and unexpected death of an infant should be classified as undetermined for both the cause and manner of death on death certificates and in national vital statistics. . . While updates cannot be undertaken lightly, a sea change in diagnostic language (as seen with sudden unexpected infant death) should be followed by parallel changes in nosology practice.

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## **Emergency Medical Services for Children (EMSC)**

*The (EMSC) Program is a federal-funded initiative designed to reduce child and youth disability and death due to severe illness or injury. The first EMSC legislation was passed in 1984.*

*At present, all 50 states have received funding through the EMSC Program. The EMSC Program is jointly administered by the U.S. Department of Health and Human Services through the Health Resources and Services Administration's Maternal and Child Health Bureau and the U.S. Department of Transportation's National Highway Traffic Safety Administration.*

The goals of the EMSC Program are to ensure that state-of-the-art emergency medical care is available for ill or injured children and adolescents, to ensure that pediatric service is well integrated into an emergency medical services system, and to ensure that the entire spectrum of emergency services – including primary prevention of illness and injury, acute care, and rehabilitation – is provided to children and adolescents.

The mission of the Mississippi Emergency Medical Services for Children (EMSC) Program is to prevent and reduce child, youth and adolescent disability and death resulting from severe illness and injury. In addition, this program

- provides education for the pre-hospital professionals;
- provides injury and illness prevention education for children, parents and teachers;
- establishes the permanence of the EMSC program in Mississippi's EMS system; and
- ensures pediatric equipment, according to the American Academy of Pediatrics/American College of Emergency Physicians (AAP/ACEP) guidelines, is available on prehospital emergency vehicles that transport children.



## **EMSC Programs**

### ***Watch Out***

EMSC implemented the Watch Out Program via our 2002 partnership grant. The program provide safety education to children and youth throughout the state. Examples of programs that will be made available through the Mobile Pediatric Education Unit include, but is not limited to:

- Water Safety Programs
- Bicycle Rodeos
- Fire/Burn Safety Programs
- Fall Prevention Programs
- Car/Seat Belt Safety Programs
- Pedestrian Safety Programs
- Poison Prevention Programs
- Home Safety Programs
- Call 911 Programs

These programs and others will be made available throughout the state. Programs will be geared toward children, adolescents, youth and parents/care givers. We will collaborate with local organizations and determine the education needs of the community.

The equipment used in the presentation of these programs includes an RV for basic home safety, a smoke house for use with fire prevention and safety, and the characters Andy the Ambulance and Pluggie the Fire Plug for interaction with the kids at the safety programs.

### ***Mobile Fire Safety House***

The purpose of the EMS Mobile Fire Safety House is to provide fire safety education to children and youth throughout the state. It will create an opportunity to provide fire safety education to communities, cities, towns and schools. It will target schools, fairs, conferences and civic organizations.

This unit simulates smoke as from a house fire and education is done on how to escape safely. Stations are set up to demonstrate stop drop and roll if your clothes catch on fire. There are other stations with activities that participants can participate in also for fire safety education.

Addendum 8:



What should you do when you see a gun?

**DO NOT PICK UP THE GUN.  
DO NOT EVEN TOUCH THE GUN.**

Remember, you must have special training to know that the gun is safe and empty.



If something like this happens to you -- tell an adult right away. Tell your mom, dad, teacher, or neighbor. Guns should be locked up after they have been used.

**GUNS ARE DANGEROUS. THEY ARE NOT MEANT TO BE TOUCHED BY SOMEONE WITHOUT PROPER TRAINING.**



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## MISSISSIPPI Suicide & Crisis Hotlines



**USA National Suicide Hotlines**  
Toll-Free / 24 hours / 7 days a week

**1-800-SUICIDE**  
1-800-784-2433

MI/MS/AL/VA

**1-800-273-TALK**  
1-800-273-8255

**TTY: 1-800-799-4TTY (4889)**

### COLUMBUS

- Helpline  
(662) 328-0200
- (662) 327-4357 (HELP)  
Choctaw, Clay, Noxubee, Iktibbeha, Webster, & Winston Counties
- Teen Line  
(662) 328-4327 (HEAR)

### JACKSON

- Helpline  
(601) 713-4357

*Or, call 911 and ask for help. Tell them you are in suicidal danger.*

Websites: [Suicide.com](http://Suicide.com) | [Suicidal.com](http://Suicidal.com) | [SuicideHotlines.com](http://SuicideHotlines.com)

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## **State Fire Marshal's Office Programs**

### **Smoke alarms**

The State Fire Marshal's Free Smoke Alarm Installation Program has been awarded three Department of Homeland Security (DHS) grants totaling nearly \$2 million. The funds have purchased more than 88,000 sealed smoke alarms with long-life lithium batteries. The latest grant will allow the purchase of alarms for people who are deaf or hard of hearing. Smoke alarms and education materials are distributed throughout the state by fire departments and community organizations that have received training through the State Fire Marshal's Office. Owner-occupied homes are being targeted to receive these alarms.

Communities wishing to participate in the program should contact their county fire coordinator or the State Fire Marshal's Office.

### **Risk Watch**

Risk Watch is a comprehensive, school-based injury prevention curriculum for students in pre-school through eighth grade. Risk Watch has been approved by the Department of Education as Health curriculum and is also correlated as Language Arts. Risk Watch teaches lessons that address motor vehicle safety; fire and burn prevention; falls prevention; poisoning prevention; choking, suffocation, and strangulation prevention; firearms injury prevention; bike and pedestrian safety; and water safety.

Risk Watch is available to schools at no cost. The State Fire Marshal's Office provides training and has implemented Risk Watch in schools throughout the state; however, there are many schools that have not implemented the program.

### **Fire Safety Education**

The Fire Safety Education Officers within the State Fire Marshal's office are available for fire safety presentations to all age groups. These presentations address preventing fires in the home and making a safe escape from a fire. The Fire Safety Education Officers also have booths at events to promote fire safety.

Additionally, The Fire Safety Education Officers work with fire departments that would like to establish a fire safety program in their community.

*This Annual Report is dedicated to the memory*

*of all **614 children** who lost their lives*

*in Mississippi in 2010.*

*May we use the information contained herein*

*to prevent any future harm*

*to our most vulnerable citizens.*