STATE OF SOUTH CAROLINA

STATE CHILD FATALITY ADVISORY COMMITTEE

2015 Report
Data Years 2006 - 2014

(1,498 case reviews completed of 1,890 total child deaths reported to SLED)

The Honorable Nikki R. Haley
Governor of the State of South Carolina
and the 120th South Carolina General Assembly

This report is supported by Child Fatality Data provided by the South Carolina Law Enforcement Division, Department of Child Fatalities, Revenue and Fiscal Affairs Office, Division of Research and Statistics and the South Carolina Department of Health and Environmental Control. Annual report development is funded by the South Carolina Department of Social Services. All opinions and recommendations are those of the State Child Fatality Advisory Committee (SCFAC).

This report may be viewed at the following web address:

www.scdhec.gov/Health/docs/SC_Child_Fatlities_Report_2015.pdf. Please address any questions in writing to the following address:

SCFAC
Dr. Susan Luberoff, Chairperson
PO Box 21398
Columbia, SC 29221
Attn: Diane Shutters, Admin Assistant,
SLED, Special Victims Unit

December 2015

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South Carolina
State Child Fatality Advisory Committee

Letter from the Chairperson

Susan Luberoff, M.D.

Dear Children's Health and Safety Advocates,

The purpose of the State Child Fatality Advisory Committee (SCFAC) is to decrease child deaths in South Carolina. We use a multidisciplinary approach to review the causes of deaths in our children, birth to 17 years of age, to gain a better understanding of each death's circumstances. Recognizing child death risk factors should enable better use of existing resources and creation of new practices to protect our children.

Regrettably, each year many children die in South Carolina from preventable causes. The greatest tragedy is the unacceptably high incidence of infant deaths related to unsafe sleeping practices. Of unexpected infant deaths in the period covered in this report, 722 babies, 94 percent of all unexplained infant deaths, would probably still be alive today if caregivers had simply followed the basic recommendation of ABC: always place an infant Alone, on its Back, in a Crib to sleep. This failure appears to rest not only with the caregivers, but also with the many potential educators who could have had an impact on these new parents: pediatricians, obstetricians, nurses, teachers, grandparents, church, family, media and other members of the young family's support and education system.

Since 2006, there have been 1,890 child deaths in South Carolina that were unexpected, unexplained and met criteria to be reviewed by the SCFAC. This report reflects information on the 1,498 cases of the 1,890 total cases that have undergone a complete review by the SCFAC as of October 2015, and provides highlighted information on the 154 homicide, suicide, accidental, natural and undetermined child deaths occurring in 2013 and 2014 that have been reviewed and completed.

Any child's death is a tragedy that has a profound effect on families and communities. What can South Carolinians do to keep our children healthy, safe and protected so they can grow into viable, productive young adults? We can create a safe, nurturing environment in which our children can live, learn and play. Child wellbeing is a shared responsibility that reaches every segment of our society.

Sincerely,

Susan Luberoff, M.D.
Chairperson, SCFAC
SC Chapter of the Academy of Pediatrics

Current South Carolina State Child Fatality Advisory Committee (SCFAC) Membership

Susan Luberoff, M.D., SCFAC Chairperson

Position number	Position	Representative	Contact Information
1.	South Carolina Department of Social Services (DSS)	Malik Whitaker	SC Department of Social Services 1535 Confederate Avenue PO Box 1520, Columbia, SC 29202-1520 P: 803-898-9225 Malik.whitaker@dss.sc.gov
2.	South Carolina Department of Health and Environmental Control (DHEC)	Lisa Hobbs	MCH Planning & Evaluation Coordinator SC Department of Health and Environmental Control 2100 Bull Street, Columbia, SC 29201 P: 803-898-0811 hobbslb@dhec.sc.gov
3.	South Carolina Department of Education	Kimberly Smith	SC Dept. of Education 1429 Senate Street, Room 801I Columbia, SC 29201 P: 803-734-8113 kwsmith@ed.sc.gov
4.	South Carolina Criminal Justice Academy	Rita Yarborough	South Carolina Criminal Justice Academy 5400 Broad River Road, Columbia, SC 29212 P: 803-896-8353 F: 803-896-7812 RAYarborough@sccja.sc.gov
5.	State Law Enforcement Division (SLED)	Emily Reinhart, Capt.	State Law Enforcement Division 4416 Broad River Road, Columbia, SC 29210 P: 803-896-7331 F: 803-896-7351 ereinhart@sled.sc.gov
6.	South Carolina Department of Alcohol and Other Drug Abuse Services (DAODAS)	Hannah Bonsu	Dept. of Alcohol & Other Drug Abuse Services Post Office Box 8268 Columbia, SC 29210 P: 803-896-4198 F: 803-896-5557 hbonsu@daodas.state.sc.us
7.	South Carolina Department of Mental Health (DMH)	Renaye Long	SC Department of Mental Health 2414 Bull Street, Columbia, SC 29201 P: 803-898-8340 F: 803-898-8347 Rsl58@scdmh.org

Position number	Position	Representative	Contact Information
8.	South Carolina Department of Disabilities and Special Needs (DDSN)	Jennifer Buster	SC Dept. of Disabilities and Special Needs Office of Children's Services 3440 Harden Street Ext Columbia, SC 29203 P: 803-898-9621 F: 803-898-9660 jbuster@ddsn.sc.gov
9.	South Carolina Department of Juvenile Justice (DJJ)	Yolanda Reid	South Carolina Department of Juvenile Justice/Internal Affairs Post Office Box 21069, Columbia, SC 29221-1069 P: 803- 530-1882 F: 803-896-9047 ydreid@scdjj.net
10.	Children's Trust of South Carolina	Sue Williams	Children's Trust of South Carolina 1634 Main Street, Suite 100 Columbia, SC 29201 P: 803-744-4023 swilliams@scchildren.org
11.	Senator	Hon. Katrina Shealy	613 Gressette Building Columbia, SC 29201 803-212-6108 katrinashealy@scsenate.gov
12.	Representative	Hon. Jenny Horne	South Carolina House of Representatives 102 Perry Lane Summerville, SC 29483 jenny@jennyhomelaw.com
13.	Attorney	Heather Weiss	South Carolina Assistant Deputy Attorney General Post Office Box 11549 Columbia, SC 29211 P: 803-734-3970 F: hweiss@scag.gov
14.	County Coroner or Medical Examiner	Rae Wooten	Charleston County Coroner 4050 Bridge View Drive, Suite 500 Perimeter Center North Charleston, SC 29405 P: 843-746-4030 F: 843-746-4033 rwooten@charlestoncounty.org
15.	Pediatrician	Dr. Susan Luberoff	SC Chapter of the Academy of Pediatrics P: 803-898-1171 C: 803-429-6994 SBL61@scdmh.org

Position number	Position	Representative	Contact Information
16.	Solicitor	Scarlett A. Wilson	Ninth Circuit Solicitor OT Wallace Building 101 Meeting Street, Suite 400 Charleston, SC 29401 Office: 843-958-1900 Fax: 843-958-1905 wilsons@scsolicitor9.org
17.	Forensic Pathologist	Dr. Darren Monroe	Professional Pathology Services One Science Court, Suite 200 Columbia, SC 29203 Office: 803-434-2278 Darren.monroe@ppspath.com
18.	Member of Public (private nonprofit organization advocating children services)	Kimberly Hamm	SC Network of Children's Advocacy Centers Post Office Box 2195 Columbia, SC 29202 P: 803-777-1226 F: 803-777-8686 kimhamm@mailbox.sc.edu
19.	Member of Public	Laura Hudson	SC Crime Victims' Council 1900 Broad River Road, Suite 200, Columbia, SC 29210 P: 803-413-5040 F: 803-359-3900 laurahudson@sccvc.org

State Child Fatality Advisory Committee (SCFAC)
History and Mission

History:

The State Child Fatality Advisory Committee (SCFAC) was enacted in 1993. Since its enactment, SCFAC has completed the review of 3,860 cases as of October 2015. This report reflects cases reviewed since 2006.

SCFAC is mandated by S.C. Code 63-11-1950 to identify patterns in child fatalities that will guide efforts by agencies, communities and individuals to decrease the number of preventable child deaths.

As defined by S.C. Code 63-11-1910 and S.C. Code 17-5-540, a "child" means a person less than 18 years of age. Any child death under the age of 18 is investigated when the death is unexpected and unexplained; including, but not limited to, an act of violence, in any suspicious or unusual manner, possible sudden infant death syndrome (SIDS), when unattended by a physician or when occurring in any unusual or suspicious manner.

SCFAC does not review motor vehicle traffic deaths except as related to injuries on private property or injury involving a pedestrian. But in 2016 it will begin reviewing deaths of children due to motor vehicle accidents. The South Carolina Department of Public Safety (SCDPS) investigates all motor vehicle traffic deaths. Failure of the state and community agencies to conduct adequate scene investigations and report child deaths in a timely manner impedes the effort to prevent future deaths from similar causes.

The mission of SCFAC is to decrease the incidence of preventable child deaths and make the public more aware of intentional child deaths by:

- Developing an understanding of the causes of child death;
- Developing plans for implementing changes within the agencies represented; and
- Advising the Governor and the General Assembly on statutory, policy and practice changes which will prevent child deaths.

SCFAC is composed of 19 members, including law enforcement, legal, medical, and political arenas and two members from the general public. Law enforcement has representation from the State Law Enforcement Division (SLED), the Departments of Social Services (DSS) and Juvenile Justice (DJJ), and the SC Criminal Justice Academy. The legal community is represented by an attorney experienced in prosecuting children's crimes and someone from the solicitor's office. The medical community has a representative from each of the following agencies: the Departments of Mental Health (DMH), Health and Environmental Control (DHEC), Alcohol and Other Drug Abuse Services (DAODAS), and Disabilities and Special Needs (DDSN), as well as a county coroner or medical examiner, a pediatrician and a forensic pathologist. Membership from the general public includes representation by a private nonprofit organization that advocates for children's services and a member of the public at large. SCFAC must also include one South Carolina Senator, one South Carolina Representative, and a representative from the State Department of Education (SDE).

It is SCFAC's vision to prevent future deaths of children by developing an understanding of how and why children die in the State of South Carolina.

Dedication and Acknowledgements

Dedication

This report reflects the work of numerous dedicated professionals from every community throughout the State of South Carolina who have committed themselves to gaining a better understanding of how and why children die. Their work is driven by a desire to protect and improve the lives of young South Carolinians. Each child's death represents a tragic loss for the family as well as the community. We dedicate this report to the memory of these children and to their families.

Acknowledgements

The members of SCFAC recognize that without the participation and support of numerous organizations, agencies and individuals, committee activities and reports would not be possible. These acknowledgements represent a small part of the unified effort in South Carolina to protect the health and safety of children.

SCFAC wishes to thank the following organizations and individuals for their assistance and cooperation in compiling this report by providing data, statistical analysis or other pertinent information and support:

South Carolina Law Enforcement Division (SLED), Special Victims Unit
South Carolina Coroners Association
Local Children's Health and Safety Councils and Child Death Review Teams
South Carolina Department of Health and Environmental Control (DHEC), Office of Public Health Statistics and Information Services

Report Edited by:

Dr. Susan Luberoff	SCFAC Chairperson, SC Chapter, American Academy of Pediatrics
Ms. Laura Hudson	SCFAC Co-Chairperson, SC Crime Victims Council
Ms. Jennifer Buster	SCFAC Member, Director of Children's Services, SC DDSN
Ms. Lisa Hobbs	SCFAC Member; Perinatal Consultant, SC DHEC
Capt. Michael Greene	SLED, Special Victims Unit

Report Prepared by:

Dr. Patsy Myers	DHEC, Epidemiologist
Mr. Owens Goff	DHEC, Program Manager

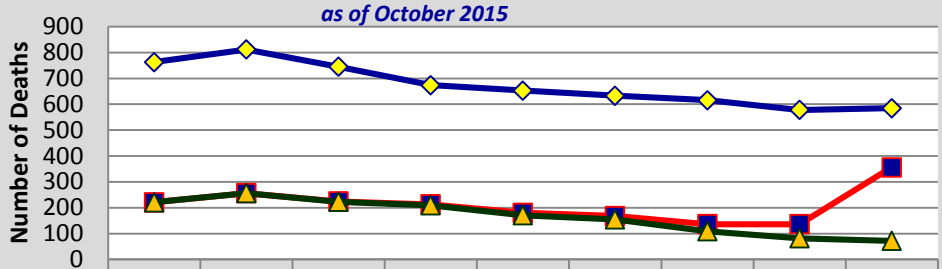
I. Executive Summary

Mortality data provides an overall picture of child fatalities by the number and causes of death. It is from a careful study of every reported child death that we, as a committee, work to identify patterns in child fatalities that will guide efforts by agencies, communities and individuals to decrease the number of preventable child deaths.

When a child dies unexpectedly, the response by the state and the community about the death must include an accurate and complete determination of the cause of death to include a thorough scene investigation and a complete autopsy. Lack of adequate investigations of child deaths impedes the effort to prevent future deaths from similar causes.

SCFAC reviews approximately 200 cases annually, presented by the State Law Enforcement Division (SLED) Special Victims Unit. Each case is reviewed and analyzed to develop an understanding of the causes and incidences of child deaths, implement changes, initiate action within agencies represented on SCFAC and to propose changes in statutes, regulation, policies and procedures to ultimately prevent and reduce the number of child deaths in the state. SCFAC typically meets every other month and is provided information as case investigations are completed by SLED.

Figure 1: 2006 - 2014
South Carolina Child Fatalities
Total SC Deaths 0-17 Years of Age
SLED Deaths Assigned and SCFAC Case Reviews Completed by Year of Death
as of October 2015



	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total SC Deaths 0-17	763	812	745	674	653	633	616	578	585
SLED Deaths Assigned	221	256	224	213	180	168	136	136	356
SCFAC Death Reviews Completed	221	256	223	209	171	155	109	82	72

The South Carolina Department of Health and Environmental Control (DHEC), Office of Public Health Statistics and Information Services reports there were 6,059 fatalities in South Carolina to residents 0 to 17 years of age from 2006 to 2014 (**Figure 1**). The table above reflects SCFAC efforts through October 2015 related to 2006-2014 data year cases. Annually, the State Law

Enforcement Division (SLED) is assigned approximately 32.6 percent of the cases involving the death of an individual age 17 and under due to deaths of an unexpected or unexplained nature. During 2006-2014, there were 1,977 cases received by SLED with 1,890 cases determined to need SLED investigation (due to their unexpected or unexplained nature) which would then require subsequent SCFAC review. Generally, there is minimal or no difference between the year of death and the year the case is assigned to SLED. The 2014 uptick in assigned cases was an abnormal occurrence with the causal system factors now corrected. Through October 2015, 79 percent (1,498) of the cases from the 2006-2014 data years which were referred to SLED have been investigated and reviewed by the SCFAC with a current balance of 393 cases remaining from these data years. SCFAC's goal for the 2015 Report was for 80 percent of the cases from the 2006-2014 data years to be completed. This goal was not quite reached due to the cancellation of the October 2015 meeting following the widespread flooding in the state.

Since 2006, SCFAC has completed review of 1,498 cases. Of these cases, the manner of death determination revealed 527 (35.2 percent) were accidental, 248 (16.1 percent) were homicide, 373 (24.9 percent) were natural, 79 (5.3 percent) were suicide and 271 (18.1 percent) were undetermined. Of these 1,498 cases by race and ethnicity, 660 (44.1 percent) were White, 710 (47.4 percent) were Black, 64 (4.3 percent) were Hispanic, and 60 (4.3 percent) were categorized as Other (includes Native Americans, Asians, Biracial and Race Unknown). **Table 1** provides a summary of the SCFAC 2006-2014 completed case reviews as of October 2015 by manner of death and race.

Table 1: Manner of Death and Race and Gender, 2006-2014
SCFAC Case Reviews Completed

Manner	White			Hispanic			Black			Other			Totals		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Accidental	162	93	255	15	9	24	158	72	230	10	8	18	345	182	527
Homicide	49	34	83	5	3	8	104	41	145	5	7	12	163	85	248
Natural	87	64	151	11	8	19	102	85	187	10	6	16	210	163	373
Suicide	41	18	59	3	1	4	9	3	12	4	0	4	57	22	79
Undetermined	75	37	112	5	4	9	83	53	136	6	8	14	169	102	271
Totals	414	246	660	39	25	64	456	254	710	35	29	64	944	554	1498

SCFAC has completed review of 82 cases in which the child death occurred during the year 2013. Of these 82 cases, the manner of death determination revealed 24 (29.3 percent) were accidental, 5 (6 percent) were natural, 22 (26.8.3 percent) were homicide, 23 (28 percent) were undetermined, and 8 (9.8 percent) were suicide. The case review revealed 42 (51.2 percent) of the victims were Black, 39 (47.6 percent) were White, and 1 (1.2 percent) was categorized as Other (includes Native Americans, Asian and Hispanic). **Table 2** provides a summary of the SCFAC 2013 completed case reviews as of October 2015 by manner of death and race and gender.

Table 2: Manner of Death and Race and Gender, 2013 SCFAC Case Reviews Completed												
Manner	Black			White			Other			Totals		
	M	F	T	M	F	T	M	F	T	M	F	T
Accidental	7	4	11	8	5	13	0	0	0	15	9	24
Homicide	10	4	14	3	5	8	0	0	0	13	9	22
Natural	1	1	2	2	1	3	0	0	0	3	2	5
Suicide	1	1	2	4	2	6	0	0	0	5	3	8
Undetermined	6	7	13	7	2	9	1	0	1	14	9	23
Totals	25	17	42	24	15	39	1	0	1	50	32	82

SCFAC has completed its review of 72 cases in which the child death occurred during the year 2014. Of these 72 cases, the manner of death determination revealed 22 (34.4 percent) were accidental, 8 (23 percent) were natural, 18 (21.3 percent) were homicide, 13 (16.4 percent) were undetermined, and 11 (4.9 percent) were suicide. The case review revealed 40 (49.2 percent) of the victims were Black, 28 (49.2 percent) were White, and 1 (1.6 percent) was categorized as Other (includes Native Americans, Asian and Hispanic). **Table 3** provides a summary of the SCFAC 2014 completed case reviews as of October 2015 by manner of death and race.

Table 3: Manner of Death and Race and Gender, 2014 SCFAC Case Reviews Completed												
Manner	Black			White			Other			Totals		
	M	F	T	M	F	T	M	F	T	M	F	T
Accidental	11	3	14	5	2	7	0	1	1	16	6	22
Homicide	7	4	11	3	2	5	1	1	2	11	7	18
Natural	4	1	5	1	1	2	1	0	1	6	2	8
Suicide	2		2	7	2	9	0	0	0	9	2	11
Undetermined	6	2	8	3	2	5	0	0	0	9	4	13
Totals	30	10	40	19	9	28	2	2	4	51	21	72

Table 4 on the next page provides a summary of the SCFAC 2006-2014 completed case reviews as of August 2015 by county.

Table 4: SCFAC Completed Case Reviews By County 2006-2014											
County	2006	2007	2008	2009	2010	2011	2012	2013	2014	Totals	Percent
Abbeville	2	3		2	2		2			11	0.7 percent
Aiken	12	5	4	4	8	3	1	5	3	45	3.0 percent
Allendale		2		1				1		4	0.3 percent
Anderson	4	9	10	4	2	3	10	2		44	2.9 percent
Bamberg	2	1	1		1	1	1			7	0.5 percent
Barnwell	1	2	2	1		1	1			8	0.5 percent
Beaufort	6	7	3	6	6	5	2		2	37	2.5 percent
Berkeley	14	16	11	6	13	8	3	2	1	74	4.9 percent
Calhoun		2		2	1				1	6	0.4 percent
Charleston	24	22	17	17	20	9	10	4	5	128	8.5 percent
Cherokee	3	6	4	4	3	4		1		25	1.7 percent
Chester	1	2	1	2				1		7	0.5 percent
Chesterfield		1	3	3	1	2		1	2	13	0.9 percent
Clarendon	1	4	2	1		1	2			11	0.7 percent
Colleton	3	4	3	2		3	3	2		20	1.3 percent
Darlington	4	4	4	6	5	5	5	7	4	44	2.9 percent
Dillon	3	4	4	3	3	2	1		1	21	1.4 percent
Dorchester	2	6	3	3	1	6	1		2	24	1.6 percent
Edgefield	1	1						1		3	0.2 percent
Fairfield		2			1		1			4	0.3 percent
Florence	6	3	11	5	4	13	8	2	4	56	3.7 percent
Georgetown	6	3	2	4			2	2	4	23	1.5 percent
Greenville	17	11	12	14	8	22	9	9		102	6.8 percent
Greenwood	6	7	3	5	2	2	2	3		30	2.0 percent
Hampton	1	2	2							5	0.3 percent
Horry	17	19	19	7	12	9	6	4	3	96	6.4 percent

Jasper	1	1	2		2					6	0.4 percent
Kershaw	3	4	2	3	2	1		3	1	19	1.3 percent
Lancaster	2		4	2	3	3	1			15	1.0 percent
Laurens	4	6	5	6		4	4	1		30	2.0 percent
Lee	2	2							2	6	0.4 percent
Lexington	11	13	13	22	11	5	7	6	10	98	6.5 percent
McCormick						1	1	1		3	0.2 percent
Marion	2	1			1			1	4	9	0.6 percent
Marlboro	1				1	1	1		1	5	0.3 percent
Newberry	1	3	3	1			1			9	0.6 percent
Oconee		7	3	3	2	1	4			20	1.3 percent
Orangeburg	8	7	7	4	11	4	1	1		43	2.9 percent
Pickens	2	2	6	4	5	1	2	4		26	1.7 percent
Richland	15	23	24	20	15	9	6	9	13	134	8.9 percent
Saluda		2	1	1		1			1	6	0.4 percent
Spartanburg	11	14	15	26	12	18	3	5		104	6.9 percent
Sumter	9	8	7	5	4	2	3	1	2	41	2.7 percent
Union	1	1		3					1	6	0.4 percent
Williamsburg	6	2		2	1			1		12	0.8 percent
York	6	12	10	5	8	5	5	2	5	58	3.9 percent
Totals	221	256	223	209	171	155	109	82	72	1498	100.0 percent

II. 2015 SCFAC Recommendations

Mental Health First-Aid and Aftermath Support for Family Survivors – SCFAC encourages the State of South Carolina to implement a trauma-informed care and support system for surviving family members (including children) immediately after a child fatality and concurrent with required investigative processes through the local Coroner's Office, DSS and SLED. SCFAC has identified the need for a collaborative effort between SCDMH, the State Coroners Association,

and SC Law Enforcement (SLED) in order to support the healing process for family survivors in the aftermath of a traumatic loss resulting from the unexpected death or a child. SCFAC encourages the provision of mental health first-aid and grief support to families, and further recognizes the need for a trauma-informed approach to the coroner's delivery of prevention education and information in the immediate aftermath of the child fatality.

Action: During the 2015-2016 time period, SCFAC recommends that the SCDMH, State Coroners Association, and SLED develop a collaborative protocol that provides mental health, first-aid, and grief support to family survivors in the immediate aftermath of any unexpected child death subject to review under S.C. Code 63-11-1910. The protocol should provide for:

- A safe and supportive environment where family survivors can share their feelings about the traumatic loss,
- Education about the grief process and community resources for support,
- Awareness of healthy and unhealthy coping mechanisms and any mental health warning signs among family survivors, particularly any children who were exposed to the traumatic event, and;
- Information regarding risks and conditions (e.g., unsafe sleeping, access to firearms, etc.) that place children at risk of harm. SCFAC considers this component to be an essential protective measure for any surviving children or children that the family may have in the future.

Homicide – SCFAC will enhance data collected regarding death due to homicide where the cause of death involved child maltreatment.

Action: During the 2015-2016 time period, SCFAC recommends:

- Effective February 2016, the DSS representative to the SCFAC will identify child death cases reviewed during each committee meeting where there has been prior DSS agency involvement with either the victim or family member, and highlight (for documentation and future reporting purposes) the cases where there was identified maltreatment of the victim.
- On an ongoing basis, the DSS representative to the SCFAC will continue utilizing child death review findings to a. work with agency leadership to make ongoing quality improvements to the system (policies and practices) and technical assistance and training processes focused on improving the skills and abilities of staff and b. strengthen the SCFAC recommendations and action steps identified in each Annual Report.
- On an ongoing basis, the DSS representative to the SCFAC will continue working with agency leadership to strengthen partnerships with local law enforcement agencies and coroner offices to improve the quality of data collected for the purpose of improving the accuracy of the data on child maltreatment deaths being reported to the Department of Health and Environmental Control's vital statistics department, SLED's Special Victims Unit and to the National Child Abuse and Neglect Data System.

Suicide – SCFAC encourages the State of South Carolina to strengthen its safety net for children who may be experiencing depression and/or are at risk of suicide by increasing community knowledge and awareness of warning signs and risk factors for suicide; implementing best practice interventions and approaches in suicide risk reduction; and developing comprehensive care systems that provide for screening, assessment and rapid access to treatment. SCFAC further encourages the state to enhance its suicide risk reduction efforts by providing policy support for the recently awarded "Young Lives Matter" (YLM) Suicide Prevention federal grant, which is administered by the SC Department of Mental Health (SCDMH) in collaboration with the American Foundation for Suicide Prevention (AFSP) and a consortium of other public and private child advocates and partners.

In 2015, the following was accomplished to advance suicide prevention efforts in the state:

- In February 2015, the SCDMH School-based Program director presented to the State Department of Education (SDE)/Department of Health and Environmental Control (DHEC) School Nurse Consultant state meeting on behavioral health signs and symptoms that may present as physical health or somatic complaints at a school nurse visit; suicide assessment, intervention and coordination with a mental health professional; and follow-up support to students/family after an attempt. Approximately 65 school nurse consultants/coordinators received this training.

- In February/March 2015, SCDMH School-based coordinators were trained in the *QPR: Question, Persuade, and Refer* (Mental Health America) and the AFSP *More than Sad* suicide prevention curricula for use in schools served by the SCDMH School-based Service Program. The Department currently has school-based mental health professionals (MHPs) in more than 400 schools statewide.

- In September 2015, SCDMH was awarded a five-year suicide prevention grant from the Substance Abuse and Mental Health Services Administration (SAMSHA) in the amount of $736,000 per year to support the state's Young Lives Matter (YLM) initiative. The grant's goals are to: build a supportive, statewide suicide prevention infrastructure; develop interagency response protocols to identify and provide service linkages to youth at risk; raise knowledge and awareness about how to access help; and increase consumers'/family members' participation in planning, education and outreach efforts. Forty-five (45) states applied for the grant, with only 12 awards being made. South Carolina's application ranked 6th.

Action: During the 2015-2016 time period, SCFAC will:

- Request for its representatives from the House and Senate to submit coordinated legislation that provides fiscal support for recurring professional development targeting public/private school personnel, law enforcement and school-based behavioral health staff. State Department of Education approved suicide prevention training programs, such as *More*

than Sad, the Jason Foundation, and *QPR: Question, Persuade, and Refer,* will be implemented in order to promote early identification of youth at risk. The training program will be jointly administered by the Department of Mental Health and State Department of Education in collaboration with the Department of Alcohol and Other Drug Abuse Services, the Children's Law Office, and community suicide prevention advocacy organizations.

- Ask the Department of Mental Health and Department of Alcohol and Other Drug Abuse Services to develop evidenced-based screening, risk assessment and treatment protocols based upon clinical best practices for school settings.
- Actively support the youth suicide prevention and teacher training provisions of Section 59-26-110 of the S.C. Code of Laws by expanding available suicide prevention training opportunities for teacher recertification**.** The State Department of Education (SCDOE) will include suicide prevention education in its school training.
- Ask SCDOE to coordinate its efforts with the Young Lives Matter suicide prevention grant initiative.

Accidental:

Asphyxiation/Suffocation (Unsafe Sleep): SCFAC encourages South Carolina to take a stronger and more coordinated statewide approach with regard to increasing awareness, knowledge, and skills of adults/caregivers in how to best encourage safe sleep habits, which are:

- Alone – the safest place for babies to sleep is in the same room as their parent, but alone in a safe sleep area.
- Back –babies should always be placed on their back to sleep.
- Crib – babies need their own safe place to sleep with the sleep area free from all loose objects, soft toys and bedding.

Action: During the 2015-2016 time period, SCFAC will request for:

- Its representatives from the House and Senate to submit coordinated legislation which provides fiscal support for a statewide, evidence-based safe sleep outreach campaign which will be administered by Children's Trust of South Carolina.
- SCFAC members to work within their represented agencies and organizations to identify two to three strategies each for implementing safe sleep/injury prevention tools. This information will be shared with the DHEC representative for vetting and incorporation into the annual work plan.

- The SC Hospital Association, the SC Chapter of the American Academy of Pediatrics, SC Section of American College of Obstetrics and Gynecology (ACOG), SC Chapter of the American Association Family Practitioners (AAFP), and the SC Primary Health Care Association to encourage their membership to address unsafe sleep as part of prenatal and newborn care and/or as part of the hospital discharge process.

Drowning: Trisha Korioth, staff writer for *AAP News*, the official newsmagazine of the American Academy of Pediatrics, shared in her 2014 article that, "Although drowning can be prevented, it remains the second most common cause of accidental injury and deaths in children 15 – 19 years old," according to U.S. data. SCFAC encourages parents and family members to set a positive example and wear a lifejacket, since adolescents are 20 percent more likely to wear a life jacket when they see an adult wearing one (according to a study of Washington State boaters), and enroll children ages 4 and over in swim lessons to make sure they learn water survival skills. Adolescents should never swim alone. Individuals, especially children and adolescents, should swim with a friend, preferably in water with lifeguard supervision.

Action: During the 2015-2016 time period, SCFAC will:

- Request for its representatives from the House and Senate to submit a letter to the Governor of South Carolina requesting that June 2016 be designated Water Safety Month.
- Submit a letter to the South Carolina Department of Education to work with school districts to enhance health education instruction on water safety and drowning prevention.
- Continue working in partnership with SC Children's Trust, Safe Kids, and the SC Department of Social Services to increase the number of foster parents that know how to swim.
- Continue working in partnership with SC Children's Trust and Safe Kids to (a) encourage the SC Department of Natural Resources to place Danger Drowning/No Swimming signs around all ponds and rivers, and (b) enhance adoption of the Life Jacket Loaner Program.

Fire: SCFAC recommends that each county adopt the current state law through establishment of a county ordinance that requires a landlord to ensure that all rental properties, especially mobile homes and apartments, have working smoke alarms.

Action: During the 2015-2016 time period, SCFAC will:

- Submit a letter to the SC State Firefighter's Association and the SC Fire Marshall's Office and ask them to contact each county's legislative delegation to encourage them to support and enforce fire and life safety through the passage of a local ordinance that requires a landlord to ensure that all rental properties, especially mobile homes and apartments, have working smoke alarms. The 'ask' has a focus on the local enforcement of the state law; for example, SC Code of Laws, Section 5-25-1330. SCFAC wants to encourage local municipalities to adopt the state law as a city or county ordinance so it can be enforced by designated officials, such as fire and law enforcement. Example: A firefighter responds to a call at a

home where an elderly tenant has fallen, and while at the residence, the firefighter can address the identified issue of missing or nonworking smoke alarms. This issue could be addressed directly with the landlord as an enforceable ordinance. Locally, the fire marshal and fire chiefs are aware of the state law and lack of enforcement capacity.

- Request for representatives from the House and Senate to submit coordinated legislation which provides fiscal support for a fire and life safety program and the purchase of fire/smoke safety alarms. The fire and life safety program would be administered by the SC Fire Marshall's Office.

Transportation: Like the Governor's Highway Safety Association, the SCFAC acknowledges the various issues surrounding teen drivers – inexperience, coupled with immaturity, often resulting in risk-taking behaviors such as speeding, distracted driving and/or texting, alcohol use and not wearing a seatbelt – that contribute to an increased death rate. The SCFAC supports enactment of graduated driver licensing laws that include: (a) learner permits beginning no earlier than age 16 which last a minimum of six months and includes at least 30-50 hours of parent-certified supervised practice, (b) an intermediate stage that lasts until age 18 and includes a nighttime driving restriction starting at 9 or 10 p.m. and either none or no more than one teen passenger, and (c) a ban on all cell phone use and electronic communication devices while driving.

Action: During the 2015-2016 time period, SCFAC will:

- Ask its representative from SC Children's Trust to work with organizational partners to adopt and implement a campaign, such as "It Can Wait," which works to save lives by calling on the public, law enforcement, educators, corporations, consumer safety groups and legislators to help find solutions to prevent the dangers of texting and driving.
- Request its representative to jointly review and work with members of the General Assembly to strengthen both primary and secondary seat belt laws, especially primary enforcement of child passenger safety related to children up to age 13 in all seating positions.
- Reach out to the South Carolina Department of Public Safety to discuss the potential data collection and dissemination opportunities with regard to incidents and fatality information involving children age 17 and older.

III. Overview of Injury Deaths

South Carolina versus National

The top three leading causes of death in the United States[i] and in South Carolina in 2013 for adolescents and young adults ages 15 to 24 were unintentional injury, suicide and homicide. These causes are highly associated with behaviors such as not using seatbelts, distracted driving and texting, being in a physical fight, carrying/access to a weapon and making a suicide plan.

Youth violence includes a wide range of behaviors including bullying, slapping or hitting that may cause more emotional than physical harm. These behaviors can cause as much or more emotional harm than assault and robbery, with or without a weapon, which can lead to serious injury or death. A young person may be involved in violence as the victim, the offender or as a witness. Violence is the second leading cause of death for young people in the U.S. between the ages of 10 and 24.[ii] Students who are victims of bullying are more likely to experience depression, suicidal thoughts, repeated common health problems, school absenteeism, psychological distress and feeling unsafe at school.

The disparities in age, race and gender related to violence are highlighted in the South Carolina *2013 Youth Risk Behavior Survey* (YRBS)[iii]. Overall, 40 percent of middle school students reported carrying a weapon such as a gun, knife or club, at least once in 2013, including 50 percent of males and 27 percent of females. Twenty-seven percent of African Americans, 33 percent of Hispanics, and 48 percent of White middle school students have carried a weapon to school. In each race/ethnic group, males were about twice as likely as females to have carried a weapon to school. In high school, about one in five (21.3 percent) students reported having carried a weapon at least once. Males were about three times as likely as females to have carried a weapon in 2013.

Indicators related to safety at school highlighted in the 2013 YRBS revealed that one in five (20 percent) high school students has been bullied, and 14 percent reported being electronically bullied (through e-mail, chat rooms, instant messaging, web sites or texting). Female high school students were almost twice as likely as male students to have been bullied on school property and about 30 percent more likely to be electronically bullied.

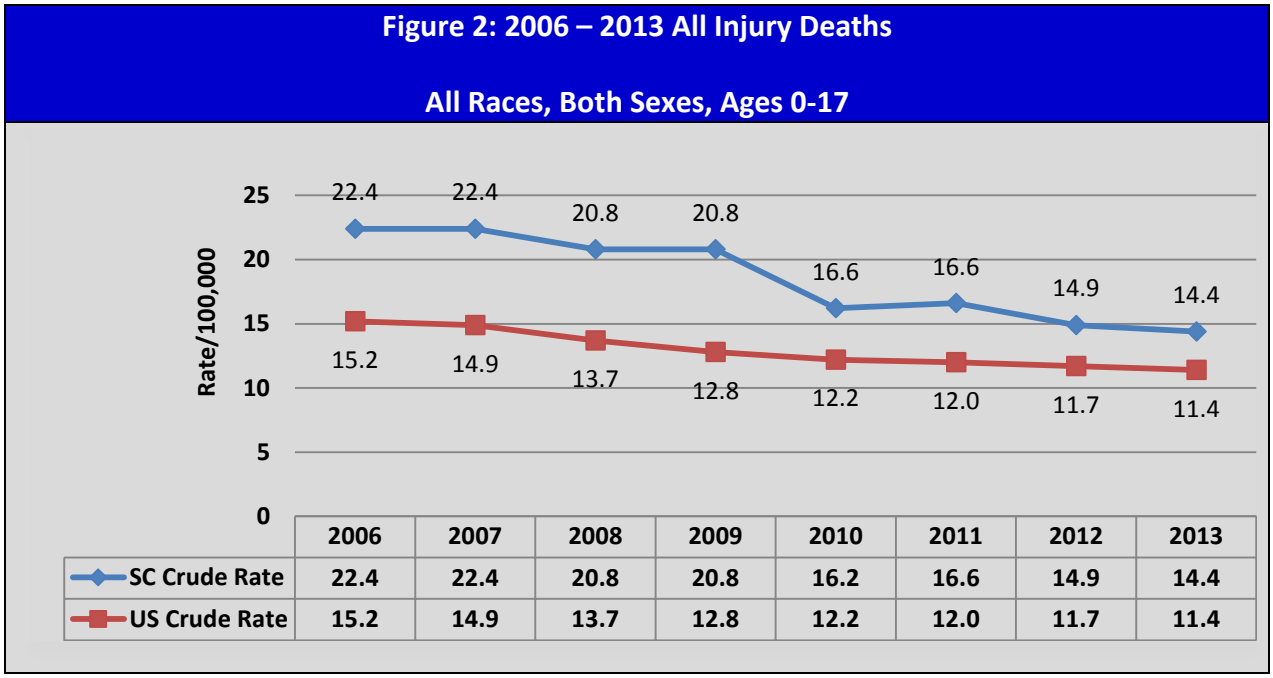
Nationally, suicide is the second leading cause of death among adolescents ages 15 to 19.[iv] In South Carolina, suicide was the leading cause of death in this age group in 2013.[v] Among young people 10 to 24 years of age, males are three times more likely than females to die from a suicide attempt[vi], but more females than males try to kill themselves.

Just over one in eight (13 percent) high school students reported seriously considering attempting suicide, and slightly less (12 percent) had made a suicide plan. About one in ten students reported having attempted suicide. Suicidal thoughts and attempts were more

common in females than in males, and Blacks were twice as likely to attempt suicide as Whites. However, males are more likely than females to succeed in committing suicide. One in five middle school students reported having considered suicide.

Though the injury mortality rate has been decreasing among children over the last five years, South Carolina remains higher than the national rate (**Figure 2**).

Figure 2: 2006 – 2013 All Injury Deaths, All Races, Both Sexes, Ages 0-17



	2006	2007	2008	2009	2010	2011	2012	2013
SC Crude Rate	22.4	22.4	20.8	20.8	16.2	16.6	14.9	14.4
US Crude Rate	15.2	14.9	13.7	12.8	12.2	12.0	11.7	11.4

Crude rate refers to rates per 100,000 population
Data Source: US CDC WONDER, DHEC, Division of Biostatistics

South Carolina – Fast Facts, DHEC, 2013 Injury Profile

In 2013, there were 3,331 total deaths in South Carolina due to all injury, intentional and unintentional, and the age adjusted death rate was 68.1 per 100,000 population.

The top five causes of injury deaths for all ages were: motor vehicle traffic incidents, suicide, poisoning, homicide and falls (**Table 5**). The top five causes of injury deaths among children 0 to 17 years of age were: suffocation, homicide, motor vehicle traffic incidents, suicide and drowning.

Table 5: 2013 South Carolina Causes of Injury Deaths

Table 5: 2013 South Carolina Resident Causes of Injury Deaths					
All Ages			**0-17 Years**		
Cause of Injury	**No.**	**Rate**	**Cause of Injury**	**No.**	**Rate**
All injury	3,331	68.1	**All injury**	157	14.4
Unintentional Injuries	2,302	482.1	**Unintentional Injuries**	99	91.0
Motor Vehicle Traffic	756	15.6	Suffocation	31	2.8
Poisoning	568	11.9	Motor Vehicle Traffic	23	2.1
Fall	367	7.1	Drowning	17	1.6
Other Specified, Unspecified	176	3.5	Fire or hot object	9	0.8
Suffocation	134	2.7	Transport, other	6	0.6
Fire or hot object	74	1.3	Pedestrian, Other	3	#
Drowning	71	1.5	Poisoning	3	#
Natural or Environmental	23	0.5	Other Specified, Unspecified	2	#
Transport, other	23	0.5	Natural or Environmental	2	#
Pedestrian, Other	18	0.4	Struck by or Against	2	#
Firearm	15	0.3	Firearm	1	#
Struck by or Against	12	0.2	**Intentional Injuries**	**47**	**4.3**
Machinery	8	0.2	Homicide	28	2.6
Pedal Cyclist, Other	2	#	Suicide	19	1.7
Cut or Pierce	1	#	**Undetermined Intention**	**10**	**0.9**
Intentional Injuries	**1024**	**214.5**			
Suicide	698	14.0			
Homicide	316	6.8			
Legal Intervention	10	0.2			
Undetermined Intention	**44**	**0.9**			

Age-adjusted rate per 100,000 population

#--No rate generated for numbers less than 5

Age specific rate per 100,000

#--No rate generated for numbers less than 5

All Causes are Unintentional except suicide, homicide, legal intervention and undetermined intention

Data Source: DHEC, Division of Biostatistics

In 2013, there were 157 deaths due to injury among children 0 to 17 years of age (rate 14.4 per 100,000 population) in South Carolina. In the past five years, among counties that had at least 20 deaths, the highest injury death rate for children ages 0-17 was in Lexington County (78 injury deaths, with a rate of 24.4 deaths per 100,000 population). The lowest injury death rate was in York County (11 injury deaths, with a rate of 11 deaths per 100,000 population).

IV. 2006 - 2014 Child Death by Manner – Case Reviews Completed

1. Unsafe Sleep

SCFAC Case Review—Unsafe Sleep-Related Deaths	2013	2014
Accidental Deaths	24	22
Unsafe Sleep-related	18	17
Percent of Accidental Deaths	75%	77%
9Y Overall %:		69.6%

Since 2006, SCFAC has completed its review of 367 (24.5 percent) cases with a manner of death related to unsafe sleep.

Unintentional suffocation is the leading cause of injury death among children aged <1 year in the United States, accounting for nearly 1,000 infant deaths annually. Since 1984, an estimated fourfold increase has been observed nationally in accidental suffocation and strangulation in bed, with many of these deaths linked to unsafe sleep environments[vii]. In the past, babies have been placed in various sleeping positions, including on their side or stomach or between cushions or pillows [viii].

Positional asphyxia (suffocation) happens when a person can't get enough air to breathe due to the positioning of his/her body. This happens most often in infants, when an infant dies and is found in a position where his/her mouth and nose is blocked, or where his/her chest may be unable to fully expand. It is felt that the positioning of the infant led to a lack of oxygen and a death by asphyxia. Examples include an infant found wedged between a mattress and the wall or an infant sleeping on a couch who is found with his face pushed against the cushions of the couch.

Positional asphyxia varies from Sudden Infant Death Syndrome (SIDS) in a few important ways. A child is said to die of SIDS if he/she:

- is less than 1 year of age, or
- died while sleeping and that death remains unexplained after a thorough investigation, including a complete autopsy and review of the circumstances of death and clinical history.

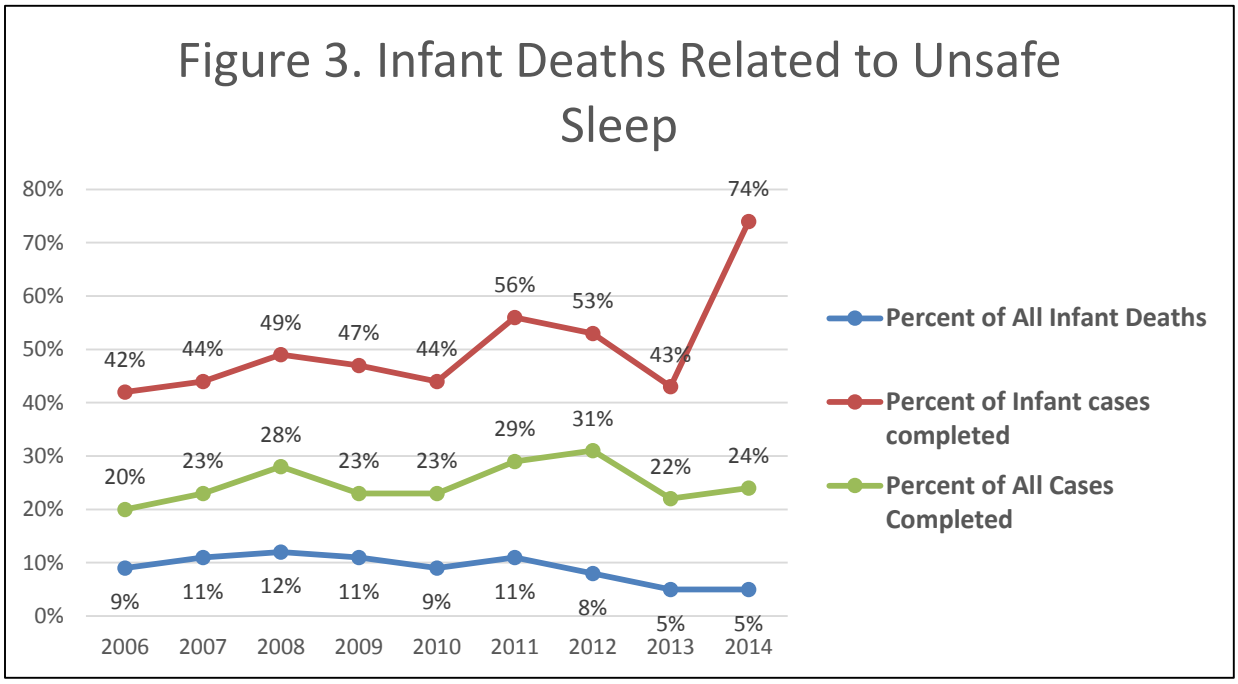
An exhausted mother laid her 4 month old baby in the bed with her at 3:00 a.m. after feeding him. When she awoke at 6:00 a.m. she discovered she had rolled over on her baby. The baby was blue and not breathing. The cause of death was suffocation due to unsafe sleeping. The manner of death was accidental.

SIDS is a cause assigned to infant deaths that cannot be explained after a thorough case investigation, including a scene investigation, autopsy and review of the clinical history. Sudden Unexpected Infant Death (SUID), also known as sudden unexpected death in infancy, is a term used to describe any sudden and unexpected death, whether explained or unexplained (including SIDS), that occurs during infancy [ix].

Many sleep related infant deaths occur in a manner consistent with SIDS, but case investigations show that the child was in a potentially unsafe sleep situation at the time of death. In these cases, it is not possible to rule out accidental suffocation, which means the diagnosis of SIDS or intentional suffocation could not be made. Therefore, the official cause of death is listed as "undetermined" following complete autopsy and thorough investigation.

Since 2006, SC deaths related to unsafe sleep have made up 10 percent of all infant deaths (0-1yrs). Approximately 19 percent of all cases (0-17 yrs.) referred to the SCFAC and 49 percent of all infant (0-12 months) deaths referred to the SCFAC involve unsafe sleeping **(Figure 3).**

A 21-year-old mother stated, "I laid my 4-month-old baby down for a nap and covered him with a blanket. When I checked on him, he was not breathing." The manner of death was accidental.



Since 2006, cases labeled "Unsafe Sleep" have comprised 49 percent of all infant death cases and SIDS/SUID comprised 45 percent of infant death cases completed. Only 6 percent of infant death cases reviewed were not related to SIDS or unsafe sleep. Unsafe sleep and SIDS/SUID related cases comprised 49 percent of all accidental death cases completed (**Figure 4**).

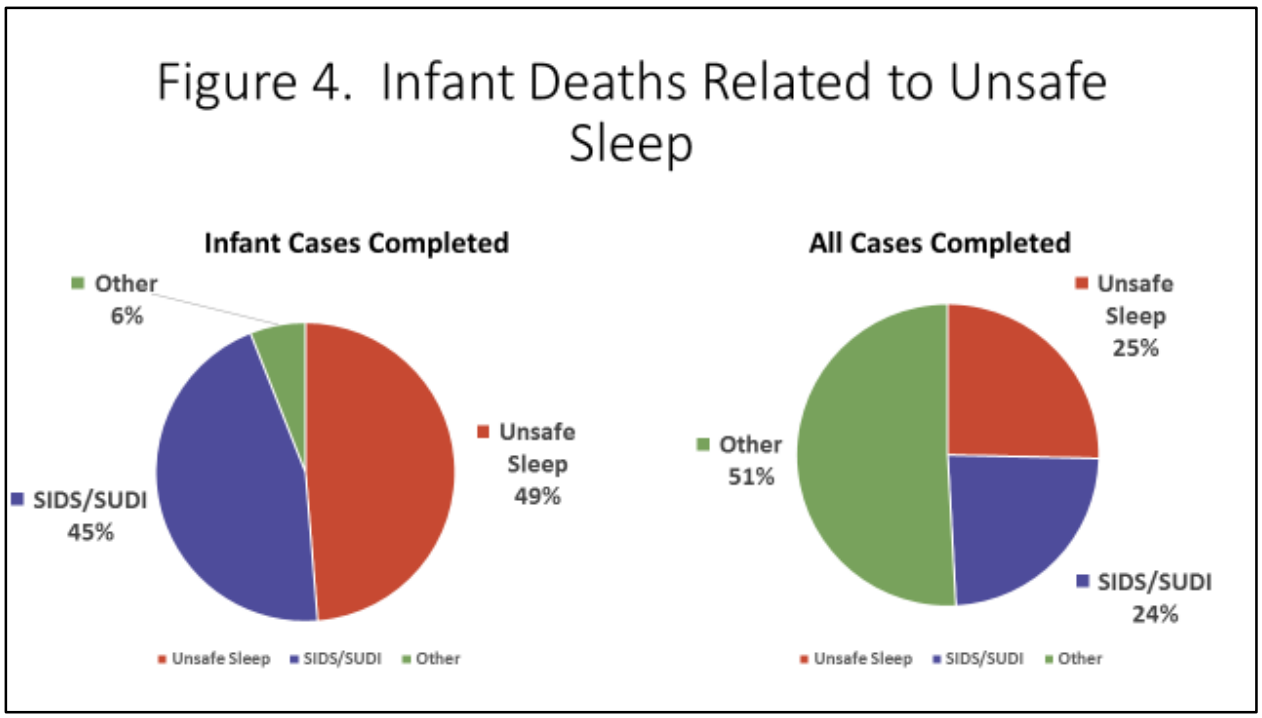


Table 6 below details the percent of infant deaths due to unsafe sleep and Sudden Infant Death Syndrome for South Carolina Residents for years 2006-2014.

Table 6. Cases Reviewed by Selected Special Topic Areas 2006-2014

Special Topic Areas	Total		Age One & Under	
	Number	Percent	Number	Percent
Unsafe Sleeping Conditions	380	25.4 percent	374	48.7 percent
SIDS/SUID	356	23.8 percent	348	45.3 percent
Drowning	65	4.3 percent	3	0.4 percent
Alcohol and Drug Use in Home	16	1.1 percent	11	1.4 percent
Hyperthermia	7	0.5 percent	2	0.3 percent
Other	674	45.0 percent	30	3.9 percent
Case Completed	**1498**	**100.0 percent**	**768**	**100.0 percent**

The American Academy of Pediatrics (AAP) has placed an increased emphasis on issues related to SIDS and SUID deaths. Co-sleeping with adults or older children, sleeping on waterbeds or couches with pillows, and stuffed animals or excess bedding in the same bed with an infant can be hazardous. The side-sleeping position is not an acceptable alternative to the back position due to the infant's potential to roll from his or her side into the prone position.

Despite a major decrease in the incidence of SIDS since the AAP released its recommendation in 1992 that infants be placed for sleep in a non-prone position, this decline has plateaued in recent years. Concurrently, other causes of sudden unexpected infant death that occur during sleep (sleep-related deaths), including suffocation, asphyxia, and entrapment as well as ill-defined or unspecified causes of death have increased in incidence. It has become increasingly important to address these other causes of sleep-related infant death.

The distinction between SIDS and other SUID deaths, particularly those that occur during an observed or unobserved sleep period (sleep-related infant deaths), such as accidental suffocation, is challenging and cannot be determined by autopsy alone. Scene investigation and review of the clinical history are also required. A case to be labeled as SIDS must have:

- A negative toxicology
- A negative history
- A negative scene
- A negative autopsy

Many of the modifiable and non-modifiable risk factors for SIDS and suffocation are strikingly similar. Therefore, in 2011, the AAP expanded its recommendations from focusing only on SIDS to focusing on a safe sleep environment that can reduce the risk of all sleep-related infant deaths, including SIDS (see recommendations below).

Prevention Points:

Level A Recommendations:

- Always place baby on his or her back to sleep, for naps and at night.
- Use a firm sleep surface.
- Room-sharing without bed-sharing is recommended.
- Keep soft objects and loose bedding out of the crib.
- Pregnant women should receive regular prenatal care.
- Avoid tobacco and environmental smoke exposure during pregnancy and after birth.
- Avoid alcohol and illicit drug use during pregnancy and after birth.
- Breastfeeding is recommended.
- Consider offering a pacifier at nap time and bedtime.
- Avoid overheating.

- Do not use home cardiorespiratory monitors as a strategy for reducing the risk of SIDS.

- 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.

Level B Recommendations:

- Infants should be immunized in accordance with recommendations of the AAP and the U.S. Centers for Disease Control and Prevention.
- Avoid commercial devices marketed to reduce the risk of SIDS.
- Supervised, awake tummy time is recommended to facilitate development and to minimize development of positional plagiocephaly.

Level C Recommendations:

- Health care professionals, staff in newborn nurseries and NICUs and child care providers should endorse the SIDS risk-reduction recommendations from birth.

- Media and manufacturers should follow safe-sleep guidelines in their messaging and advertising.
- 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.

These recommendations are based on the U.S. Preventive Services Task Force levels of recommendation (www.uspreventiveservicestaskforce.org/uspstf/grades.htm).

Level A: Recommendations are based on good and consistent scientific evidence (i.e., there are consistent findings from at least 2 well-designed, well-conducted case-control studies, a systematic review, or a meta-analysis). There is high certainty that the net benefit is substantial and the conclusion is unlikely to be strongly affected by the results of future studies.

Level B: Recommendations are based on limited or inconsistent scientific evidence. The available evidence is sufficient to determine the effects of the recommendations on health outcomes, but confidence in the estimate is constrained by such factors as the number, size or quality of individual studies or inconsistent findings across individual studies. As more information becomes available, the magnitude or direction of the observed effect could change and this change may be large enough to alter the conclusion.

Level C: Recommendations are based primarily on consensus and expert opinion.

Some activities related to prevention of deaths due to unsafe sleep that have been initiated in the past year include:

- Children's Trust and DHEC are participating in a Safe Sleep workgroup as part of the National Infant Mortality CoIIN group.
- Children's Trust and DHEC collaborated on providing safe sleep messaging to parents and caregivers.
- SC Birth Outcomes Initiative has included speakers on safe sleep to educate providers and hospitals during monthly meetings and at the annual symposium.

Resources:

- SIDS Network – www.SIDS-network.org
- Back to Sleep Campaign – www.nichd.nih.gov/sids
- American Academy of Pediatrics – www.aap.org
- CJ Foundation for SIDS – www.cjsids.com
- American Sudden Infant Death Syndrome Institute – www.sids.org
- National Sudden and Unexpected Infant/Child Death Resource Center –www.sidscenter.org
- National Sudden and Unexpected Infant/Child Death and Pregnancy Loss Program Support Center - www.firstcandle.org
- National Adolescent Health Information Center Unintentional Injury Fact Sheet – www.childdeathreview.org
- Centers for Disease Control and Prevention –www.cdc.org
- American Academy of Pediatrics – www.aap.org

- National Safety Council –www.nsc.org
- Baby your Baby - babyyourbaby.org/infants/positional-asphyxia.php
- ASTHO Safe Sleep page - www.astho.org/Maternal-and-Child-Health/Safe-Sleep/

2. Homicide

Homicide - is the act or instance of unlawfully killing another human being, whether intentionally or unintentionally.[x] Cases reviewed revealed that family members, through beatings and suffocations, commit the most homicides of young children. Middle childhood is a time when a child's homicide risk is relatively low. Most homicides of teenagers involve male victims killed by male offenders using firearms, often gang and drug related. In 2013, South Carolina had a total of 316 homicides (rate of 6.8 per 100,000 population), 28 homicides (rate of 6.8 per 100,000) of which were children 0 to 17 years of age. Of these 28 cases, 22 needed further investigation.

SCFAC Case Review--Homicide		
	2013	**2014**
Cases Assigned:	136	356
Cases Completed:	82	72
Homicide:	22	18
% of Completed Cases:	26.8%	25.0%
9Y Overall Percent:		**16.6%**

A mother and her children had recently moved to SC to be with the mother's boyfriend. Services for the 3-year-old with disabilities were no longer sought for the child by the mother. The child was not seen by family, DSS, or neighbors. When the child was taken to the ER, it was determined that the child had been abused, including burns to genitals, teeth aggressively pulled, head shaved and bruises all over the body. In addition, the 3-year-old had an infection and never received medical attention. The manner of death was homicide. Both the mother and boyfriend were charged.

Since 2006, SCFAC has completed its review of 248 (16.6 percent) cases with a manner of death determination as homicide. Of these 248 cases by race and ethnicity, 145 victims (58.54 percent) were Black, 83 (33.5 percent) were White, 8 (3.2 percent) were Hispanic, and 12 (4.8 percent) were categorized as Other (includes Native Americans, Asians and Biracial).

Homicide by Child Abuse - In the event that a child dies, immediate circumstances surrounding the death do not always indicate that a homicide has occurred. Through a thorough investigation and an autopsy, other evidence is obtained which strongly suggests that the death is homicide by child abuse.

Fatal child abuse may be the result of abuse recurring over time. The incidence of child abuse appears to be associated with other social problems, such as domestic violence, substance abuse, multiple stresses on families and poverty. Child maltreatment deaths occur in the greatest numbers among infants, followed by toddlers and preschool children. Children

younger than 6 years of age are most vulnerable because of their small size, incomplete verbal skills, and limited contact with adults other than their primary caregivers [xi].

In most cases, infant homicides occur when the child is in the care of a relative or someone the child knows. Some injuries are the result of deliberate intent to do harm such as beating, suffocation, strangulation, severe inflicted burns, scalding or the use of a weapon. Some fatal injuries may have no external signs of trauma.

Young children killed by their parents are most often beaten, shaken or suffocated to death. Older maltreatment fatality victims, especially teenagers, are more likely to be killed with guns or other weapons[xii].

Shaken Baby Syndrome/Abusive Head Trauma (SBS/AHT) is a term used to describe the constellation of signs and symptoms resulting from violent shaking or shaking and impacting of the head of an infant or small child.[xiii] The resulting whiplash effect can cause bleeding within the brain or the eyes.[xiv]

According to the U.S. Centers for Disease Control and Prevention's (CDC) National Center for Injury Prevention and Control: With Traumatic Brain Injury (TBI), nearly all victims of SBS suffer serious health consequences and at least one of every four babies who are violently shaken dies from this form of child maltreatment. In order to prevent deaths from Shaken Baby Syndrome, SC Code of Laws, Section 44-37-50, requires:

- Hospitals to offer parents and caregivers of newborns education on this topic;
- Childcare facilities to offer training to caregivers;
- DHEC to produce educational materials for use by healthcare providers; and
- DSS to offer adoptive parents education on this topic.

Prevention Points:[xv]

- **Family Violence:** Most homicides occur among family members, non-punitive fathers, friends and neighbors. Often they involve infants who are killed when emotions are running high and restraint of those emotions is not exercised.
- **Young Children:** Child abuse homicide often occurs in younger children. Inexperienced and frustrated caregivers, often without any parental training, cause the death of a child. Abusive head trauma is an example of how impact or violently shaking a baby can cause serious or fatal trauma to the child's brain. Caregivers should be mindful of a child's limited capabilities and susceptibility. Child care education can be provided at all points of contact with parents and caregivers.

- **Signs of Child Abuse:** It is important to pay attention and familiarize yourself with signs of child abuse. It is equally important to use common sense in trying to determine if a child is being abused. Normally, active children get bruises and bumps from everyday play. These bruises are most often over bony areas such as the knees, elbows and shins. However, if a child has injuries on other parts of the body such as the stomach, cheeks, ears, buttocks, mouth or thighs, consider the possibility that the child is being abused, particularly if the appearance of the injury does not correspond to the child's account of the event. Black eyes, human bite marks, and round burns the size of a cigarette should be considered highly suspicious and reported to the appropriate authorities. SC Code of Laws, Section 63-7310-50.
- **Gang Violence:** ***How can you keep your child from joining a gang?*** Educate yourself about gang and drug activity in your community. Know where your child is and be aware that 3 -6 p.m. is not a safe time to leave your child unsupervised. Demonstrate love and acceptance at home (many kids join gangs to feel a sense of connection and approval). Get your child involved in quality, out of school activities, such as sports, music or art. Volunteer at your child's school. Establish strong parental rules, set limits, and be consistent, firm and fair. Get to know your child's friends and their parents. Listen to your child. Talk with your child. Show respect for your child's feelings and attitudes. Do not buy or allow your child to buy gang-style clothing.
- **Shaken Baby Syndrome:** ***How can SBS be prevented?*** Research shows that shaking most often results from crying or other factors that may trigger frustration or anger in the baby's caregiver. Crying—including long bouts of inconsolable crying—is normal developmental behavior in infants. The problem is not the crying, it's how caregivers respond to it. Picking up a baby and shaking, throwing, hitting or hurting him/her is never an appropriate response. Everyone, from caregivers to bystanders, can do something to prevent SBS. Giving parents and caregivers tools to know how they can cope if they find themselves becoming frustrated are important components of any SBS prevention initiative. You can play a key role in reinforcing prevention by helping people understand the dangers of violently shaking a baby, the risk factors, and the triggers for it, and ways to lessen the burden of stress on parents and caregivers, all of which may help to reduce the number of children affected by SBS.

Resources:

- Brady Campaign to Prevent Gun Violence - www.bradycampaign.org
- CDC Division of Violence Prevention - www.cdc.gov
- Center for the Prevention of School Violence - www.ncdjjdp.org
- National Center on Shaken Baby Syndrome – dontshake.org

3. Suicide

Suicide – the act or an instance of taking one's own life voluntarily and intentionally.

Since 2006, SCFAC has completed reviews of 79 (5.3 percent) cases with a manner of death determination as suicide. Of these 79 cases by race and ethnicity, 59 victims (74.7 percent) were White, 12 (15.2 percent) were Black, 4 (5.1 percent) were categorized as Other (includes Native Americans and/or Asians), and 4 (5.2 percent) were Hispanic.

SCFAC Case Review--Suicide		
	2013	2014
Cases Assigned:	136	356
Cases Completed:	82	72
Suicide:	8	11
Percent of Completed Cases:	9.8%	15.3%
9Y Overall %:		5.3%

There are often stressors associated with the completion of suicide. Feelings of despair and helplessness contribute to the lack of desire to live. Suicide can possibly be linked to a clinical diagnosis of depression, bipolar disorders and substance abuse. Yet, risk factors for suicide can often go undiagnosed, untreated or ignored. Suicides are more common than previously perceived.

Children who experience violence, drug and/or alcohol addiction, poverty, or sexual, physical and/or emotional abuse have much higher risk for suicide. Many times suicides happen because the existing problem in a child's life is perceived to be insurmountable, and it seems that the current situation will last forever. Despite the fact that research indicates more females attempt suicides, more males actually complete suicides. A prior suicide attempt is an important risk factor for an eventual completion. There are risk factors and warning signs for suicide.

Information from the *2013 SC Youth Risk Behavior Survey*, South Carolina Department of Education indicates:

- 22 percent of middle school students have seriously considered suicide, 14 percent have made suicide plans, and 9 percent have tried to kill themselves.

A 17-year-old male had just received information that he was not going to complete high school with the rest of his friends and he became depressed. He had also been kicked off the baseball team recently due to his failing grades. On the way home from school, he was ticketed for rolling through a stop sign. When he got home he told his mother about the ticket and she became upset with her son. She took his keys and told him he could ride the bus for the remainder of the school year. The teenage boy went to his room. Fifteen minutes later the mother heard a gunshot; she went to her son's room and found him dead from a gunshot wound to the head. The manner of death was ruled suicide.

- 13 percent of high school students seriously considered suicide, 12 percent made a suicide plan, 9.4 percent attempted suicide and 4 percent made a suicide attempt that resulted in injury, poisoning or overdose that required treatment by a doctor or nurse.
- Older middle school students were more likely than younger students to have made a suicide plan, and female middle school students were more likely than male students to have seriously considered suicide.
- Female high school students were more likely than male students to have experienced symptoms of depression, considered suicide and made a suicide plan.
- The percentage of high school students who experienced symptoms of depression (past 12 months) decreased significantly from 31 percent in 2011 to 26.6 percent in 2013.
- The percentage of high school students who seriously considered suicide (past 12 months) decreased by 48 percent from 26 percent in 1991 to 13 percent in 2013.
- The percentage of high school students who made a suicide plan (past 12 months) decreased by 26 percent from 16 percent in 1991 to 12 percent in 2013.

Prevention Points:

- **Early Diagnosis and Treatment:** Early involvement by mental health professionals may prevent suicide attempts. Special caution should be taken with children who are taking anti-depressant medication as health officials have issued warning that these medications might increase the risk of hostility, mood swings, aggression, and suicide in children or adolescents.
- **Observations:** Watch for changes in a young person's psychological state (increase in rage, anxiety, depression, or hopelessness), withdrawal, reckless behavior or substance use.
- **Evaluation of Thinking:** ***Do not ignore statements about suicide, even if they seem casual or fake.*** The months following a suicide attempt or severe depression can be a time of increased risk, no matter how well the child seems to be doing. This is a critical time for family interaction and securing family support systems.
- **Limit Access to Fatal Agents:** Easily obtained or improperly secured firearms and other weapons are often used in suicides. The harder it is for children to put their hands on these items, the more likely they are to rethink their intentions, allowing time for someone to intervene.
- **Talk about Issues:** Bringing up suicide does not "give kids the idea," but rather gives them the opportunity to discuss their thoughts and concerns. This communication can be a significant deterrent.

Resources:

- "Suicide Prevention: Youth Suicide". Centers for Disease Control and Prevention. www.cdc.gov/ViolencePrevention/pub/youth_suicide.html
- American Academy of Pediatrics – www.aap.org
- Youth Suicide Prevention Program – www.yspp.org

- American Foundation of Suicide Prevention – www.afsp.org
- KidsHealth – www.kidshealth.org
- Out of the Darkness – www.outofthedarkness.org

4. Accidental

Since 2006, SCFAC has completed its review of 527 (35.2 percent) cases with a manner of death determination as accidental. Of these 527 cases by race and ethnicity, 255 victims (48.4 percent) were White, 230 (43.6 percent) were Black, 24 (4.6 percent) were Hispanic, and 18 (3.4 percent) were categorized as Other (includes Native Americans and/or Asians). Currently, the percentage of 2013 cases with a manner of death determination as accidental is 29.3 percent (24 of 82 cases). Accidental cases comprised 30.6 percent of 2014 cases (22 of 72 cases).

Table 6 provides a summary of the 2006-2014 case reviews completed with an accidental manner of death determination.

Table 6: SCFAC Case Reviews Completed, 2006-2014

Accidental Manner of Death Determination = 527 Cases

Case Reviews Completed as of October 2015

	2006	2007	2008	2009	2010	2011	2012	2013	2014	Totals
Drowning	16	10	2	8	11	6	3	4	5	65
Fire	15	7	10	14	2	4	1		4	57
Firearm	2	4	3	5	5	6	3	1	1	30
Poisoning	4	8	4	4	3	2			2	27
Asphyxiation	32	53	50	39	25	22	31	18	8	278
Transportation	8	10	8	2	2	6	2			38
Other	3	6	3	1	6	8	2	1	2	32
Totals	80	98	80	73	54	54	42	24	22	527

Drowning - suffocation by submersion especially in water. The CDC reports that about 10 people die daily from unintentional drowning, and that drowning ranks 5th among the leading causes of unintentional injury death in the United States. Of this daily number, two are children aged 14 or younger.

SCFAC Case Review--Drowning		
	2013	2014
Accidental Deaths	24	22
Drowning	4	5
% of Accidental Deaths	16.7%	22.7%
9 Y Overall %:		12.3%

Since 2006, SCFAC has completed its review of 65 (12.3 percent) cases with a manner of death determination as drowning.

CDC reports that nearly 80 percent of people who die from a drowning are male. Children ages 0 to 4 have the highest drowning rates. In 2011, among children 1 to 4 years of age who died from an unintentional injury, almost 20 percent died from drowning[xvi]. Among children ages 1 to 4 years of age, most drowning deaths occur in home swimming pools. Drowning is responsible for more deaths among children 1-4 years of age than any other cause of death, except congenital anomalies (birth defects). Among those 1 to 14 years of age, fatal drowning remains the second leading cause of unintentional injury-related death, behind motor vehicle crashes.

Between 2006 and 2014, the fatal unintentional drowning rate for Blacks was 12 percent higher than that for Whites of all ages. The disparity is widest among children 5 to 14 years of age. The fatal drowning rate of Black children ages 10 to 14 is more than three times that of White children in the same age range.

SC DHEC's Office of Public Health Statistics and Information Services reports that in 2013 the state suffered 61 drowning deaths with 17 occurring in residents in the 0 to 17 years of age population group.

The main factors that affect drowning risk are (a) lack of swimming ability with many adults and children reporting that they cannot swim, (b) lack of barriers (e.g., pool fencing, locked gates) to prevent unsupervised water access by children, (c) lack of close supervision while swimming or bathing, (d) failure to wear life jackets, (e) alcohol use among adolescents and adults since it influences balance, coordination and judgment and the effects heightened by sun exposure and heat, and (f) seizure disorders with the bathtub as the site of highest drowning risk.

Prevention Points:[xvii]

- Learn life-saving skills: Everyone should know the basics of swimming (floating, moving through the water) and cardiopulmonary resuscitation (CPR).
- Fence it off: Install a four-sided isolation fence, with self-closing and self-latching gates, around backyard swimming pools. This can help keep children away from the area when

they are not supposed to be swimming. Pool fences should completely separate the house and play area from the pool.

- Make life jackets a "must": Make sure children wear life jackets in and around natural bodies of water, such as lakes or the ocean, even if they know how to swim. Life jackets can be used in and around pools for weaker swimmers too.
- Be on the lookout: When kids are in or near water (including bathtubs), closely supervise them at all times. Adults watching kids in or near water should avoid distracting activities like playing cards, reading books, talking on the phone, and using alcohol or drugs.

Resources

- Centers for Disease Control and Prevention - www.cdc.gov
- Safe Kids Worldwide –www.safekids.org
- American Academy of Pediatrics – www.aap.org
- American Red Cross – www.redcross.org

Fire – is a chemical change that releases heat and light and is accompanied by flame. Nationally, and within South Carolina, it is residential fires that cause many casualties.

Since 2006, SCFAC has completed its review of 57 (10.8percent) cases with a manner of death determination as fire related.

SCFAC Case Review--Fire	2013	2014
Accidental Deaths	24	22
Fire		4
% of Accidental Deaths	0.0%	16.7%
9Y Overall %:		10.8%

According to the 2012 "Fire Loss in the U.S." report from the National Fire Protection Association, fire departments responded to 366,600 home fires in the United States that claimed the lives of 2,370 people and injured another 13,210 not including firefighters.[xviii]

"I left food cooking on the stove while I stepped out of the house for a few minutes to speak to my neighbor," stated the mother of three small children killed as a result of a cooking related fire. There were no operable smoke detectors found in the home. The manner of death was accidental.

In the U.S., at least 80 percent of all fire related deaths occur in the home. They are most commonly associated with cooking, smoking, electrical malfunctions involving overloaded circuits or makeshift wiring and children playing with matches. The second leading cause of residential fires and the major cause of fire in commercial properties is arson. The third leading cause of home fires is a faulty heating system; individual homeowners are less likely to have their heating systems maintained than apartment owners. Having working fire alarms dramatically increases the chances of surviving a fire at home.

According to the CDC's Injury and Violence Prevention Division, Home Safety Information, children from low income families are at greater risk of fire-related death due to lack of working smoke alarms, sub-standard housing, use of alternative heating sources and being left unattended due to unaffordable or inaccessible child care while parents work.

- From 2008 to 2012, there were 347 fire-related fatalities in South Carolina.
- From 2008 to 2012, the months of January, February, and December were the most deadly, accounting for 144 (52 percent) of the state's 347 total fire fatalities.
- From 2008 to 2011, Charleston, Lexington, and Spartanburg Counties have had the highest number of fire fatalities.
- From 2008 to 2011, the population age of 20 and under has experienced 40 fire related deaths.[xix]

The South Carolina Division of Fire and Life Safety, Office of State Fire Marshall (OSFM), collects various statistics related to fire fatalities.

"Our statistics show fires consistently rank high as a cause of death for children in our state," State Fire marshal Chief Bert Polk said. "We average 10 child fire fatalities per year with 90 percent occurring in homes and 50 percent without a working smoke alarm."

THE OSFM Community Risk Reduction Team remains actively involved in educating the public regarding home fire safety for families statewide.

Prevention Points:[xx]

- Keep all matches, lighters, and candles out of the hands of children. Teach children not to pick up or touch matches, lighters or candles they may find. If they find matches or lighters within reach, they should ask an adult to move them. If possible, keep matches and lighters in locked drawers and candles up high out of a child's reach. Consider buying only "child-proof" lighters—but be aware that no product is completely child-proof.
- Children as young as two years old can strike matches and start fires.
- Consider establishing a "No-Smoking" policy inside the home. This eliminates the need for frequent use of matches and lighters.
- Never leave children unattended near operating stoves or burning candles, even for a short time.
- Smoke alarms should be installed on every level of the home, especially near sleeping areas.
- Smoke alarms should be kept clean of dust by regularly vacuuming over and around them.
- Replace batteries in smoke alarms at least once a year. And replace the entire unit after ten years of service, or as the manufacturer recommends.
- Families should plan and practice two escape routes from each room of their home.

- Regularly inspect the home for fire hazards.
- If there are adults in the home who smoke, they should use heavy safety ashtrays and discard ashes and butts in metal, sealed containers.
- If there is a fireplace in the home, the entire opening should be covered by a heavy safety screen. The chimney should be professionally inspected and cleaned annually.
- Children should cook only under the supervision of an adult or with their permission.
- Children should never play with electrical cords or electrical sockets. They should ask adults for help plugging in equipment.
- Children should stay away from radiators and heaters, and they should be taught that these devices are not toys. Young children in particular must be taught not to play with or drop anything into space heaters. Nothing should be placed or stored on top of a heater.
- Pots on stovetops should always have their handles turned toward the center of the stove where children cannot reach up and pull or knock them over onto themselves.
- Teach children to turn off lights, stereos, TVs and other electrical equipment when they are finished using them. In the case of a room heater, children should ask an adult to turn it off when the room will be empty.
- No one should stand too close to a fireplace or wood stove or other types of heaters, where clothes can easily catch fire.

Resources:

- US Fire Administration - www.usfa.fema.gov/kids/discuss/index.shtm
- SC Department of Labor, Licensing and Regulation: Office of State Fire Marshal scfiremarshal.llronline
- The National Child Traumatic Stress Network (NCTSN) – nctsn.org
- Centers for Disease Control and Prevention - www.cdc.gov/HomeandRecreationalSafety/Fire-Prevention/tools.html

Firearm – a weapon, especially a pistol or rifle, capable of firing a projectile and using an explosive as a propellant. According to Safe Kids Worldwide, exposure to guns and access to a loaded firearm increase the risk of unintentional firearm-related deaths and injury to children. Unrealistic perceptions of children's capabilities and behavioral tendencies with regard to guns are common.

SCFAC Case Review--Firearm	2013	2014
Accidental Deaths	24	22
Firearm	1	1
% of Accidental Deaths	4.2%	4.2%
9Y Overall %:		5.7%

These include misunderstanding a child's ability to gain access to and fire a gun, distinguish between real and toy guns, make good judgments about handling a gun and consistently follow

rules about gun safety. Promoting the safe storage of firearms in the home and reducing their availability and accessibility are important steps in preventing unintentional firearm-related death and injury among children.

Since 2006, SCFAC has completed its review of 30 (5.7 percent) cases with a manner of death determination as firearm related.

Parents of a 3-year-old had gotten out of their vehicle to look at a motorcycle for sale. The 3-year-old was left in the vehicle alone. The parents heard a "pop" and looked in the vehicle to discover their 3-year-old was dead from a gunshot wound to his head. The firearm belonged to one of the parents and was not properly stored. The firearm was loaded and had been hidden under the front seat. The cause of death was accidental due to gunshot wound to the head with massive cerebral trauma and the manner of death was accidental.

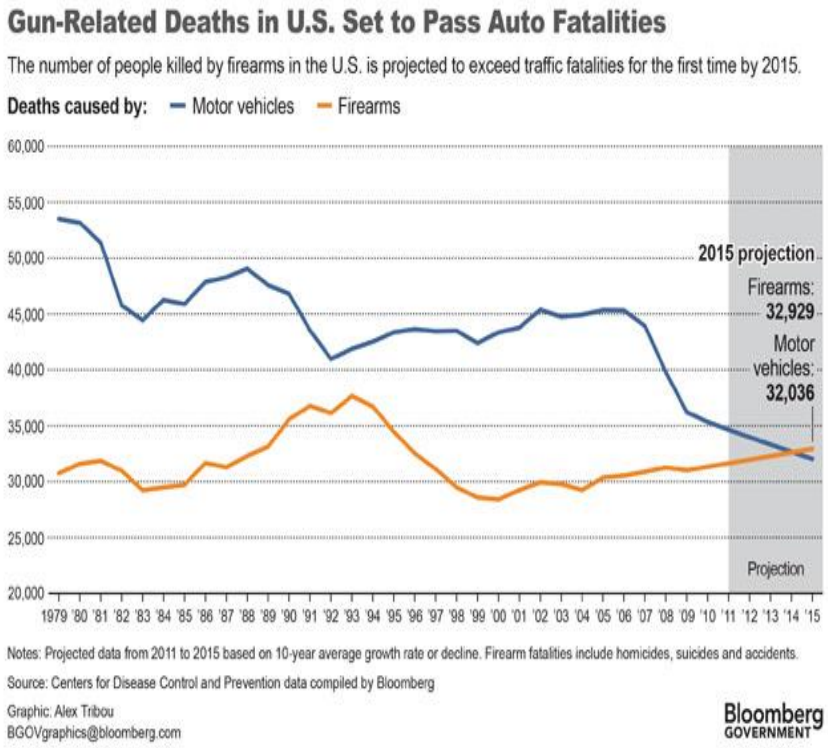
In 2013, CDC reported 505 deaths due to accidental discharge of firearms, 41,149 deaths by suicide, 21,175 (51 percent) of which were by discharge of firearms, and 16,121 homicides, 11,208 (69 percent) of which were committed by discharge of firearms.

The 505 accidental firearm discharge death number is an amazingly low number considering there are 93 guns for every 100 people in the U.S. (not including the military and law enforcement - which would essentially make the ratio 1/1); 350,000,000 guns with less than 1,000 accidental deaths annually. However, this remarkably low number represents 505 preventable deaths and could create a source of lifelong negative physical, emotional and social consequences for family members.

SC DHEC's Office of Public Health Statistics reports 15 unintentional firearm related deaths in 2013 and 13 during 2014, with one death (2013) and three deaths (2014) occurring to residences 0 to 17 years of age. During this reporting period, one of three unintentional firearm related death cases from 2014 has been investigated by SLED and has had a completed SCFAC review.

The South Carolina Department of Education's *2013 Youth Risk Behavior Survey* reports eight percent of high school students carried a gun to school in the past 30 days, and that White male high school students were 30 percent more likely than Black male students to have carried a weapon.

Nonfatal Firearm-Related Injuries – In the June 7, 2013 publication of the American Academy of Pediatrics article, "*Firearm-Related Injuries Affecting the Pediatric Population*[xxi]," data gathered from emergency departments in the 66 hospitals in the National Electronic Injury Surveillance System All-Injury Program revealed an estimated 73,505 people of all ages were treated for nonfatal firearm-related injuries in US hospital emergency departments in 2010. Among them were 15,576 children and adolescents younger than 20 years. Of those, 6,236 (40 percent) required hospitalization for their injuries. Adolescents 15 to 19 years of age had nonfatal firearm injury rates nearly 3 times that of the general population (62.9 vs 23.9 per 100 000). Most (79 percent) of the nonfatal injuries to adolescents were attributable to assault; and assault-related injuries were responsible for 84.5 percent of hospitalizations. In SC, 1,184 people were treated for firearms-related injuries in emergency departments in 2011. Of those, 493 (42 percent) were between the ages of 15 and 24 years of age. Overall, males accounted for 90 percent of firearm-related emergency department visits.



Prevention Points:

In Your Home

- Before you buy a gun, consider less dangerous ways to keep your family and property safe, such as burglar alarms, window locks, dogs, etc.
- Don't buy a gun unless you have the necessary knowledge to use it safely.
- Firearms should be stored unloaded and in a locked place.

- Firearms should be locked up in a place that children cannot reach since children often have trouble telling the difference between a toy gun and a real gun.
- Bullets should be locked up in a place separate from where guns are secured.
- Trigger locks can be a helpful additional precaution for unloaded firearms. They must be applied to an unloaded firearm.
- Some locks can be removed in as few as 6 seconds.
- If you keep an unlocked gun under your pillow at night, lock it in the morning before you go to work.

Teach Your Children

- Explain to children that guns are dangerous and that they should never touch guns without your permission.
- Talk to your children about the difference between the violence that they see on television or in the movies and real-life violence, where adults and children really get hurt.
- Tell your children that if they find a gun anywhere they should not touch it and should leave the area and go tell an adult. If they are in school and know of other children carrying a handgun they should tell an adult.

Resources:

- Brady Campaign to Prevent Gun Violence - www.bradycampaign.org
- Law Center to Prevent Gun Violence - smartgunlaws.org/gun-law-statistics-and-research/
- Injury Free Coalition for Kids - www.injuryfree.org/resources/FirearmInjuryPreventionChecklist.pdf

Poisoning - poison is any substance, including medications, that is harmful to your body if too much is eaten, inhaled, injected or absorbed through the skin. Any substance can be poisonous if too much is taken.

SCFAC Case Review--Poisoning		
	2013	**2014**
Accidental Deaths	**24**	**22**
Poisoning	**0**	**0**
% of Accidental Deaths	**0.0%**	**0.0**
9Y Overall %:		**5.1%**

Since 2006, SCFAC has completed its review of 27 (5.1 percent) cases with a manner of death determination as poisoning. The CDC reports that every day in the United States 99 people die as a result of unintentional poisoning and another 2,893 are treated in emergency departments (ED). Poisonings are either intentional or unintentional. If the person taking or giving a substance did not mean to cause harm, then it is an unintentional poisoning.

Unintentional poisoning includes the use of drugs or chemicals for nonmedical purposes in excessive amounts, such as an "overdose." It also includes the excessive use of drugs or chemicals for non-recreational purposes, such as by a toddler.

Among children, emergency department visits for medication poisonings (excluding misuse or abuse) are twice as common as poisonings from other household products (such as cleaning solutions and personal care products).[xxii]

Latest Poison News Alerts can be obtained by visiting the American Association of Poison Control Centers at: www.aapcc.org/

Prevention Points:

Drugs and Medicines

- Only take prescription medications that are prescribed to you by a healthcare professional. Misusing or abusing prescription or over-the-counter medications is not a "safe" alternative to illicit substance abuse.
- Never take larger or more frequent doses of your medications, particularly prescription pain medications, to try to get faster or more powerful effects.
- Never share or sell your prescription drugs. Keep all prescription medicines (especially prescription painkillers, such as those containing methadone, hydrocodone, or oxycodone), over-the-counter medicines (including pain or fever relievers and cough and cold medicines), vitamins and herbals in a safe place that can only be reached by people who take or give them.
- Follow directions on the label when you give or take medicines. Read all warning labels. Some medicines cannot be taken safely when you take other medicines, and you should never take medications and drink alcohol.
- Turn on a light when you give or take medicines at night so that you know you have the correct amount of the right medicine.
- Keep medicines in their original bottles or containers.
- Monitor the use of medicines prescribed for children and teenagers, such as medicines for attention deficit hyperactivity disorder (ADHD).
- Properly dispose of unused, unneeded, or expired prescription drugs.

Household Chemicals and Carbon Monoxide

- Always read the label before using a product that may be poisonous.
- Keep chemical products in their original bottles or containers. Do not use food containers such as cups, bottles, or jars to store chemical products such as cleaning solutions or beauty products.

- Never mix household products together. For example, mixing bleach and ammonia can result in toxic gases.
- Wear protective clothing (gloves, long sleeves, long pants, socks, shoes) if you spray pesticides or other chemicals.
- Turn on the fan and open windows when using chemical products such as household cleaners.

Keep Young Children Safe from Poisoning

Be Prepared

- Put the poison help number, 1-800-222-1222, on or near every home telephone and save it on your cell phone. The line is open 24 hours a day, seven days a week.

Be Smart about Storage

- Store all medicines and household products up and away and out of sight in a cabinet where a child cannot reach them.
- When you are taking or giving medicines or are using household products, do not put your next dose on the counter or table where children can reach them—it only takes seconds for a child to get them.
- If you have to do something else while taking medicine, such as answer the phone, take any young children with you.
- Secure the child safety cap completely every time you use a medicine.
- After using them, do not leave medicines or household products out. As soon as you are done with them, put them away and out of sight in a cabinet where a child cannot reach them.
- Be aware of any legal or illegal drugs that guests may bring into your home. Ask guests to store drugs where children cannot find them. Children can easily get into pillboxes, purses, backpacks, or coat pockets.

Other Tips

- Do not call medicine "candy."
- Identify poisonous plants in your house and yard and place them out of reach of children and pets or remove them.

Resources

- American Association of Poison Control Center - www.aapcc.org/prevention/children/
- Household Hazardous Materials: A Guide for Citizens - training.fema.gov
- North American Guidelines for Children's Agricultural Tasks - www.nagcat.org

A father gave his 2-year-old a peanut. The child swallowed the peanut and it became lodged in his throat. The parents tried to remove the peanut and were unsuccessful. The child was taken to the local hospital where attempts to resuscitate were unsuccessful. An autopsy revealed foreign material, a peanut, was lodged in the child's airway. The cause of death was airway obstruction. The manner of death was accidental.

Asphyxiation (Suffocation/Strangulation) – which is to die from lack of respiration. This includes inhalation and ingestion of food or object, which cause the obstruction of the respiratory tract or suffocation. This group also includes accidental mechanical suffocation (e.g. by plastic bag, closed up in air tight place, accidental hanging).

Since 2006, SCFAC has completed its review of 278 (52.8 percent) cases with a manner of death as asphyxiation.

Prevention Points:

- Remove cords and drawstrings from a child's clothing.
- Place all plastic bags or wrapping where children cannot reach them.
- Check floors for small objects such as buttons, beads, marbles, or coins.
- Avoid giving infants and young children small, firm food items such as hot dogs, grapes, peanuts, popcorn kernels and carrots.

SCFAC Case Review--Asphyxiation		
	2013	2014
Accidental Deaths	24	22
Asphyxiation	18	8
% of Accidental Deaths	75.0%	33.3%
9Y Overall %:		52.8%

Resources:

- Centers for Disease Control and Prevention – www.cdc.org
- American Academy of Pediatrics – www.aap.org
- U. S. Consumer Product Safety Commission – www.cpsc.gov
- National Safety Council – www.nsc.org
- Baby your Baby - babyyourbaby.org/infants/positional-asphyxia.php

Transportation (Private Property Only): Motor vehicle traffic incidents are the number one cause of accidental injury deaths among youth.

Since 2006, SCFAC has completed its review of 38 (7.2 percent) cases with a manner of death determination as transportation related.

SCFAC Case Review--Transportation		
	2013	2014
Accidental Deaths	24	22
Transportation	0	0
% of Accidental Deaths	0.0%	0.0%
9Y Overall %:		7.7%

State Information Age 0-17 population: ATV usage has become popular for both recreation and work. Their size, maneuverability and durability make ATVs extremely handy and fun to ride. Unfortunately, each year in the United States more than 50 children ages 16 and under are killed and approximately 29,000 are injured on ATVs [xxiii] Young riders lack the size and strength to safely control an ATV. ATV drivers often travel on roadways which are not designed for ATV travel and drive at unsafe speeds. The American Academy of Pediatrics recommends that no one under 16 years of age ride or drive ATVs or other motorized vehicles. Manufacturers warn that full-sized ATVs are not designed for those under 16 years of age to operate. Please also refer to SC Code of Laws, Section 50-26-40 for state law restrictions on use of ATVs.

A child was killed while riding on the back of an ATV driven by his 13 year old cousin. Neither of the children was wearing a helmet and the cause of death was blunt force trauma to the head. "It is a very sad way of ending a Memorial Day Holiday and my prayers go out to this family and the child driver," stated a neighbor of the 12-year-old. The manner of death was accidental.

In recent years, golf carts have become popular with older and younger drivers. They are no longer used solely on golf courses, but rather in communities. The carts are a convenient and energy efficient way for residents to get around, but they also pose risks.

According to the Consumer Products Safety Commission (CPSC), there are approximately 15,000 golf cart related emergency department visits in the United States every year. Based on the CPSC statistics, 40 percent of the injuries involve a person falling out of a cart and occur to children under the age of 16. Please also refer to SC Code of Laws, Section 56-2-105 for state laws on golf cart permitting and regulations on the operation of a golf cart.

Prevention Points:

ATV safety:

- Attend an ATV driver's safety course.
- Never use a 3-wheeler. They are unsafe and are no longer manufactured.
- Ride an age-appropriate ATV.
- Children under age 16 should never operate an ATV**.**
- Never carry passengers. ATVs are designed for one person.
- Do not use ATVs on the streets or at night.
- Always wear an approved helmet with eye protection.
- Wear non-skid, closed toe shoes.
- Wear long pants and a long-sleeve shirt.
- Never operate an ATV under the influence of drugs or alcohol.

Golf Cart Safety:

- If children ride on a golf cart without seat belts, mounted hand holds should be provided to reduce the possibility of ejection.
- Additions of seat belts, doors, and netting can be used to improve occupant retention.

Resources:

- Injury Free Coalition for Kids – www.injuryfree.org
- Consumer Product Safety Commission – www.cpsc.gov

Other Causes: Since 2006, 32 (6.1 percent) deaths occurred in children from other accidental causes to include: animal attacks, crushing, falling, struck by falling object, hyperthermia and electrocution. From 1998-2012 a total of six children in South Carolina have died from heatstroke from being left in hot cars with a rate of 6.1 per million population. South Carolina ranks 27th in deaths of children in hot cars[xxiv](http://ggweather.com/heat/per_capita.htm). Nationally, July and August are the most likely months for deaths in hot cars. Nationally, a total of 45 percent of deaths from hot cars have occurred in July or August.

SCFAC Case Review
Accidental-Other Causes

	2013	2014
Accidental Deaths	24	22
Other Causes	1	2
% of Accidental Deaths	4.2%	8.3%
9Y Overall %:		6.1%

5. Natural

Natural deaths can be attributed to diseases and conditions such as cardiac arrhythmia, meningitis, myocarditis, pneumonia and sickle cell disease. Metabolic disorders and birth defects also contribute to the cause of death among children. Many natural deaths are not preventable; however, some are preventable.

SCFAC Case Review--Natural		
	2013	**2014**
Cases Assigned:	**136**	**356**
Cases Completed:	**82**	**72**
Natural:	**5**	**8**
% of Completed Cases:	**6.1%**	**11.1%**
9Y Overall Percent	**24.9%**	

A natural death may occur suddenly, unexpectedly or progressively due to an underlying condition that is unknown to the guardian of a child. Many times the cause of death is undetectable until a thorough autopsy is performed**.**

Since 2006, SCFAC has completed its review of 373 (24.9 percent) cases with a manner of death determination as natural. Of these cases 373 cases, 187 (50.1 percent) were Black, 151 (40.5 percent) were White, 19 (5.1 percent) were Hispanic and 16 (4.3 percent) were categorized as Other (includes Native Americans and/or Asians).

Sickle Cell Disease (SCD) is a group of inherited red blood cell disorders. Healthy red blood cells are round, and they move through small blood vessels to carry oxygen to all parts of the body. If someone has SCD, the red blood cells become hard and sticky and look like a C-shaped farm tool called a "sickle." The sickle cells die early, which causes a constant shortage of red blood cells. Pain is the most common complication of SCD, and the top reason that people with SCD go to the emergency room or hospital. When sickle cells travel through small blood vessels they can get stuck and clog the blood flow. This causes pain that can start suddenly, be mild to severe and can last for any length of time. However, people with SCD can live full lives and enjoy most of the activities that other people do.

People with SCD, especially infants and children, are more at risk for harmful infections. Pneumonia is a leading cause of death in infants and young children with SCD.

Prevention Points:

Vaccines can protect against harmful infections.

- Babies and children with SCD should have all of the recommended childhood vaccines, plus a few extra. The extra ones are:
  - ✓ Flu vaccine (influenza vaccine) every year after 6 months of age.
  - ✓ A special pneumococcal vaccine (called 23-valent pneumococcal vaccine) at two and five years of age.
  - ✓ Meningococcal vaccine, if recommended by a doctor.

- In addition, children with SCD should receive a daily dose of penicillin, an antibiotic medicine, to help prevent infections. This can begin at two months of age and continue until the child is at least five years of age.

Sickle Cell Trait - People who inherit one sickle cell gene and one normal gene have *sickle cell trait* (SCT). People with SCT usually do not have any of the symptoms of sickle cell disease (SCD), but they can pass the trait on to their children.

Sickle Cell Trait and Athletes - Some people with SCT have been shown to be more likely than those without SCT to experience heat stroke and muscle breakdown when doing intense exercise, such as competitive sports or military training under unfavorable temperatures (very high or low) or conditions.

Studies have shown that the chance of this problem can be reduced by avoiding dehydration and getting too hot during training.

People with SCT who participate in competitive or team sports (i.e., student athletes) should be careful when doing training or conditioning activities.

Prevention Points:

- Set your own pace and build your intensity slowly.
- Rest often in-between repetitive sets and drills.
- Drink plenty of water before, during, and after training and conditioning activities.
- Keep the body temperature cool when exercising in hot and humid temperatures by misting the body with water or going to an air conditioned area during breaks or rest periods.
- Immediately seek medical care when feeling ill.

Resources:

- Centers for Disease Control and Prevention - www.cdc.gov/ncbddd/sicklecell/index.html
- American Academy of Pediatrics – www.aap.org
- National Institutes of Health - www.ghr.nlm.nih.gov/condition/sickle-cell-disease

6. Undetermined

SCFAC Case Review—Undetermined Cause	2013	2014
Cases Assigned:	136	356
Cases Completed	82	72
Undetermined:	23	13
% of Completed Cases:	28%	18.1
9Y Overall Percent:		18.1%

The Undetermined category includes cases that have been investigated, but a manner of death cannot be determined based on the available information surrounding each case. Often, multiple causes are possible, but none can be conclusively proven (e.g., Sudden Infant Death Syndrome (SIDS) vs. Overlay vs. Intentional Suffocation). SIDS is defined by the American Academy of Pediatrics (AAP) as the sudden death of an infant less than 1 year of age, which remains unexplained after a thorough case investigation, including performance of a complete autopsy, examination of the death scene and review of the clinical history.

Since 2006, SCFAC has completed its review of 271 (18.1 percent) cases with a manner of death determination as undetermined. Of these 271 cases, 136 (50.2 percent) were Black, 112 (41.3 percent) were White, 9 (3.3 percent) were Hispanic and 15 (5.2 percent) were categorized as Other (includes Native Americans and/or Asians). In 169 (62.3 percent) cases the gender was male.

Table 7 provides a summary of the 2006-2014 child fatality cases assigned to SLED with a manner of death determination as undetermined.

Table 7: Child Fatality Cases Assigned To SLED: 2006-2014
Case Reviews Completed: Undetermined Manner of Death = 272
18.1 percent of 1,498 Total Case Reviews Completed

	Black			Hispanic			White			Other			Totals		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
2006	11	6	**17**	0	1	**1**	7	2	**9**	**2**	**1**	**3**	**20**	**10**	**30**
2007	10	5	**15**	0	1	**1**	10	5	**15**	0	**3**	**3**	**20**	**14**	**34**
2008	11	5	**16**	1	1	**2**	14	8	**22**	0	**2**	**2**	**26**	**16**	**42**
2009	11	8	**19**	0	2	**2**	7	3	**10**	0	**0**	**0**	**18**	**13**	**31**
2010	10	8	**18**	1	0	**1**	15	6	**21**	0	**0**	**0**	**26**	**14**	**40**
2011	11	7	**18**	2	0	**2**	7	5	**12**	**3**	**2**	**5**	**23**	**14**	**37**
2012	7	5	**12**	0	0	**0**	5	4	**9**	0	**0**	**0**	**12**	**9**	**21**
2013	6	7	**13**	0	0	**0**	7	2	**9**	**2**	**0**	**2**	**15**	**9**	**24**
2014	6	2	**8**	0	0	**0**	3	2	**5**	0	**0**	**0**	**9**	**4**	**13**
Totals	**83**	**53**	**136**	**4**	**5**	**9**	**75**	**37**	**112**	**7**	**8**	**15**	**169**	**103**	**272**

Individuals Aged 17 & Under and total case reviews completed through August 2015

V. Appendices

Appendix 1 - Child Death Investigations

Any child death under the age of 18 is investigated when the death is unexpected and unexplained including, but not limited to: possible sudden infant death syndrome, as a result of violence, when unattended by a physician and in any suspicious or unusual manner. When a child dies, the response by the state and the community must include an accurate and complete determination of the cause of death to include a thorough scene investigation and a complete autopsy. Lack of adequate investigations of child deaths impedes the effort to prevent future deaths from similar causes.

Multi-disciplinary and multi-agency reviews of deaths can assist the state in the investigation of child deaths, in the development of a greater understanding of the incidence and causes of child death and the methods for preventing such deaths, and in identifying gaps in services to children and families. Law enforcement, coroners, public health officials, educators, medical personnel, social workers, and mental health providers must collaborate on child death investigations. This cooperation increases the ability to accurately identify the cause and manner of child fatalities.

The American Academy of Pediatrics describes an adequate death investigation as including a complete autopsy, investigation of circumstances of death, review of the child's medical and family history, and review of information from relevant agencies and health care professionals. An autopsy is essential to determine the cause and manner of death and toxicology samples are necessary to indicate the presence of drugs and/or alcohol. When an autopsy is not performed, it greatly limits the investigation and SCFAC's ability to gain insight into the death to make recommendations to prevent future deaths. A thorough death scene investigation by law enforcement and the coroner is essential. Child death scene investigation protocols from various sources and coroner's protocols and initial intake sheets are available.

In the state of South Carolina, the State Law Enforcement Division provides, upon request, assistance in the sometimes lengthy investigations of child deaths. Services include the assistance of experienced crime scene investigators (CSI) who can assist local agencies in documenting and gathering evidence from a child death scene and/or autopsy. Local agencies can also request the use of the SLED Toxicology Department. Child Fatality cases have preliminary testing completed within 48 hours (most are within 24 hours). More comprehensive testing is completed within two weeks (unless further specialized testing is required). The 24- to 48-hour turnaround time is provided on all child fatality cases that are visibly marked and noted as a child fatality case. The preliminary results will be called to the coroner upon request and these services are provided free of charge. The State Law Enforcement Division also provides experienced investigators from the Special Victims Unit

(SVU) who are specially trained in the investigation of child deaths to assist in every step of the investigation from the initial scene to the final court date.

Appendix 2 - Injury Morbidity and Mortality ICD Codes

Cause of Injury Death	ICD-9	ICD-10
All Injury	E800-E869, E880-E929, E950-E999	V01–Y36, Y85–Y87, Y89, *U01-*U03
Suicide	E950-E959	X60–X84, Y87.0
Homicide	E960-E969	X85–Y09, Y87.1
Unintentional	E800-E869,E880-E929	V01–X59, Y85–Y86
Cut or pierce	E920	W25–W29, W45, W46
Drowning	E830,E832,E910,E954,E964,E984	W65–W74
Fall	E880-E886,E888	W00–W19
Fire or hot object	E890-E899	X00–X19
Firearm	E922	W32–W34
Machinery	E919	W24, W30–W31
Motor Vehicle Traffic	E810-E819	[V02–V04](.1,.9), V09.2, [V12–V14](.3–.9), V19(.4–.6), [V20–V28](.3–.9), [V29–V79](.4–.9), V80(.3–.5), V81.1, V82.1, [V83–V86](.0–.3), V87(.0–.8), V89.2
Pedal cyclist, other	[E800–E807](.3),[E820–E825](.6),E826(.1,.9)	V10–V11, [V12–V14](.0–.2), V15–V18, V19(.0–.3,.8,.9)
Pedestrian, other	[E800–E807](.2), [E820–E825](.7), [E826–E829](.0)	V01, [V02–V04](.0), V05, V06, V09(.0–.1,.3,.9)
Natural or environmental	E900.0–E909, E928(.0–.2)	W42–W43, W53–W64, W92–W99, X20–X39, X51–X57
Overexertion	E927	X50
Poisoning	E850–E869	X40–X49
Struck by or against	E916–E917	W20–W22, W50–W52
Suffocation	E911–E913	W75–W84
Other specified, unspecified	E846–E848, E887, E914–E915, E918, E921(.0–.9), E923(.0–.9), E925.0–E926.9, E928(.8,.9),E929(.0–.5,.8,.9)	W23, W35–W41, W44, W49, W85–W91, X58, X59, Y85, Y86
Legal intervention	E970–E978,E990–E999	Y35–Y36, Y89(.0,.1)
Undetermined	E980–E989	Y10–Y34, Y87.2, Y89.9

Appendix 3 - County Mortality Data for 2006-2014 Deaths, by Manner of SCFAC Case Reviews Completed, (as of October 2015)

County	Manner of Death	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total
Abbeville	*Accident*	2			1	2		1			6
	Homicide		1					1			2
	Natural		2		1						3
	Suicide										0
	Undetermined										0
	Total	**2**	**3**	**0**	**2**	**2**	**0**	**2**	**0**	**0**	**11**
Aiken	*Accident*	5	2	2	1	4	3			1	18
	Homicide	4		1	1	1			2	1	10
	Natural	2	2	1	1	2					8
	Suicide				1	1		1	1		4
	Undetermined	1	1						2	1	5
	Total	**12**	**5**	**4**	**4**	**8**	**3**	**1**	**5**	**3**	**45**
Allendale	*Accident*		1								1
	Homicide								1		1
	Natural		1								1
	Suicide										0
	Undetermined				1						1
	Total	**0**	**2**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**4**
Anderson	*Accident*	1	6	3	3	1	2	8	1		25
	Homicide	1	1	4			1	2			9
	Natural	2	2	2	1	1					8
	Suicide										0
	Undetermined			1					1		2
	Total	**4**	**9**	**10**	**4**	**2**	**3**	**10**	**2**	**0**	**44**
Bamberg	*Accident*	2	1					1			4
	Homicide										0
	Natural					1	1				2
	Suicide										0
	Undetermined			1							1
	Total	**2**	**1**	**1**	**0**	**1**	**1**	**1**	**0**	**0**	**7**

County	Manner of Death	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total
Barnwell	*Accident*	1	1								2
	Homicide										0
	Natural		1	2	1			1			5
	Suicide										0
	Undetermined						1				1
	Total	**1**	**2**	**2**	**1**	**0**	**1**	**1**	**0**	**0**	**8**
Beaufort	*Accident*	2	3	1	2	3	1			1	13
	Homicide	2	1		3		1	1		1	9
	Natural		2	1	1		2				6
	Suicide					1					1
	Undetermined	2	1	1		2	1	1			8
	Total	**6**	**7**	**3**	**6**	**6**	**5**	**2**	**0**	**2**	**37**
Berkeley	*Accident*	10	4	4	1	2	2	1	1		25
	Homicide	3	3	2	2	3	1	1	1	1	17
	Natural	1	3	2	2	1	2	1			12
	Suicide					1					1
	Undetermined		6	3	1	6	3				19
	Total	**14**	**16**	**11**	**6**	**13**	**8**	**3**	**2**	**1**	**74**
Calhoun	*Accident*		1			1					2
	Homicide				1					1	2
	Natural		1		1						2
	Suicide										0
	Undetermined										0
	Total	**0**	**2**	**0**	**2**	**1**	**0**	**0**	**0**	**1**	**6**
Charleston	*Accident*	6	8	4	6	6	3	2	3	3	41
	Homicide	8	2		3	5	1	1	1	1	22
	Natural	4	2	3		2	2	4			17
	Suicide	2	1	2		3		1		1	10
	Undetermined	4	9	8	8	4	3	2			38
	Total	**24**	**22**	**17**	**17**	**20**	**9**	**10**	**4**	**5**	**128**

County	Manner of Death	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total
Cherokee	*Accident*	1	2		1		2				6
	Homicide					2					2
	Natural	2	4	2	3	1					12
	Suicide						1				1
	Undetermined			2			1		1		4
	Total	**3**	**6**	**4**	**4**	**3**	**4**	**0**	**1**	**0**	**25**
Chester	*Accident*		1		1						2
	Homicide			1	1				1		3
	Natural	1	1								2
	Suicide										0
	Undetermined										0
	Total	**1**	**2**	**1**	**2**	**0**	**0**	**0**	**1**	**0**	**7**
Chesterfield	*Accident*		1				1			1	3
	Homicide			3	3				1	1	8
	Natural										0
	Suicide										0
	Undetermined					1	1				2
	Total	**0**	**1**	**3**	**3**	**1**	**2**	**0**	**1**	**2**	**13**
Clarendon	*Accident*		1		1						2
	Homicide						1				1
	Natural		2	2							4
	Suicide										0
	Undetermined	1	1					2			4
	Total	**1**	**4**	**2**	**1**	**0**	**1**	**2**	**0**	**0**	**11**
Colleton	*Accident*	1	2	1			1	3	1		9
	Homicide		1		1		1		1		4
	Natural	1	1								2
	Suicide										0
	Undetermined	1		2	1		1				5
	Total	**3**	**4**	**3**	**2**	**0**	**3**	**3**	**2**	**0**	**20**

County	Manner of Death	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total
Darlington	*Accident*		1	2	1	2	2	1	1	3	13
	Homicide				1				5		6
	Natural	2	2	2	4	2	1	1			14
	Suicide	1									1
	Undetermined	1	1			1	2	3	1	1	10
	Total	**4**	**4**	**4**	**6**	**5**	**5**	**5**	**7**	**4**	**44**
Dillon	*Accident*		2	4	1		1	1			9
	Homicide	3	1								4
	Natural		1		2	2	1			1	7
	Suicide					1					1
	Undetermined										0
	Total	**3**	**4**	**4**	**3**	**3**	**2**	**1**	**0**	**1**	**21**
Dorchester	*Accident*		3	2	2	1	2			1	11
	Homicide		3				2	1			6
	Natural	1		1	1						3
	Suicide									1	1
	Undetermined	1					2				3
	Total	**2**	**6**	**3**	**3**	**1**	**6**	**1**	**0**	**2**	**24**
Edgefield	*Accident*										0
	Homicide		1								1
	Natural										0
	Suicide								1		1
	Undetermined	1									1
	Total	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**3**
Fairfield	*Accident*					1		1			2
	Homicide										0
	Natural		1								1
	Suicide										0
	Undetermined		1								1
	Total	**0**	**2**	**0**	**0**	**1**	**0**	**1**	**0**	**0**	**4**

County	Manner of Death	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total
Florence	*Accident*	1	1	3	1	1	4	2	1	1	15
	Homicide	1	1	2			1			1	6
	Natural	2	1	1	1	2	2	4			13
	Suicide	1					1			1	3
	Undetermined	1		5	3	1	5	2	1	1	19
	Total	6	3	11	5	4	13	8	2	4	56
Georgetown	*Accident*		2		2				1		5
	Homicide	2	1								3
	Natural	4		2							6
	Suicide									2	2
	Undetermined				2			2	1	2	7
	Total	6	3	2	4	0	0	2	2	4	23
Greenville	*Accident*	5	1	2	1	3	5	7	5		29
	Homicide	2	2	1	3	1	2	1	2		14
	Natural	5	6	3	8	2	6	1			31
	Suicide	2	1				3		1		7
	Undetermined	3	1	6	2	2	6		1		21
	Total	**17**	**11**	**12**	**14**	**8**	**22**	**9**	**9**	**0**	**102**
Greenwood	*Accident*	3	6	2	4	1	1	2			19
	Homicide	1							3		4
	Natural	1	1		1		1				4
	Suicide			1		1					2
	Undetermined	1									1
	Total	**6**	**7**	**3**	**5**	**2**	**2**	**2**	**3**	**0**	**30**
Hampton	*Accident*		1								1
	Homicide			2							2
	Natural		1								1
	Suicide										0
	Undetermined	1									1
	Total	**1**	**2**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**5**

County	Manner of Death	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total
Horry	*Accident*	10	6	2	5	5	3	2		1	34
	Homicide		2	4			1				7
	Natural	7	8	11	1	4	5	4	2	2	44
	Suicide		1	2		1					4
	Undetermined		2		1	2			2		7
	Total	**17**	**19**	**19**	**7**	**12**	**9**	**6**	**4**	**3**	**96**
Jasper	*Accident*	1	1	1							3
	Homicide										0
	Natural					1					1
	Suicide										0
	Undetermined			1		1					2
	Total	**1**	**1**	**2**	**0**	**2**	**0**	**0**	**0**	**0**	**6**
Kershaw	*Accident*	2	1	1		1			2		7
	Homicide		1		1	1					3
	Natural	1	2	1	1						5
	Suicide				1						1
	Undetermined						1		1	1	3
	Total	**3**	**4**	**2**	**3**	**2**	**1**	**0**	**3**	**1**	**19**
Lancaster	*Accident*			2	1	3	1				7
	Homicide	1					1				2
	Natural	1			1		1				3
	Suicide										0
	Undetermined			2				1			3
	Total	**2**	**0**	**4**	**2**	**3**	**3**	**1**	**0**	**0**	**15**
Laurens	*Accident*	2	2	2	2		3	1			12
	Homicide				2						2
	Natural	2	1	3	2			1			9
	Suicide						1	1	1		3
	Undetermined		3					1			4
	Total	**4**	**6**	**5**	**6**	**0**	**4**	**4**	**1**	**0**	**30**

County	Manner of Death	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total
Lee	*Accident*	1	1							1	3
	Homicide										0
	Natural	1	1								2
	Suicide										0
	Undetermined									1	1
	Total	**2**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**6**
Lexington	*Accident*	6	6	6	13	4	5	5	3	3	51
	Homicide	1	2	3	2	2		2		5	17
	Natural	3	3	2	3	1			1		13
	Suicide	1		1	1	2			2	2	9
	Undetermined		2	1	3	2					8
	Total	**11**	**13**	**13**	**22**	**11**	**5**	**7**	**6**	**10**	**98**
Marion	*Accident*	1	1							4	6
	Homicide								1		1
	Natural										0
	Suicide										0
	Undetermined	1				1					2
	Total	**2**	**1**	**0**	**0**	**1**	**0**	**0**	**1**	**4**	**9**
Marlboro	*Accident*										0
	Homicide						1	1			2
	Natural					1					1
	Suicide									1	1
	Undetermined	1									1
	Total	**1**	**0**	**0**	**0**	**1**	**1**	**1**	**0**	**1**	**5**
McCormick	*Accident*						1				1
	Homicide										0
	Natural										0
	Suicide										0
	Undetermined							1	1		2
	Total	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**1**	**0**	**3**

County	Manner of Death	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total
Newberry	*Accident*	1		3							4
	Homicide				1						1
	Natural		3					1			4
	Suicide										0
	Undetermined										0
	Total	**1**	**3**	**3**	**1**	**0**	**0**	**1**	**0**	**0**	**9**
Oconee	*Accident*		6	3	1	2	1	1			14
	Homicide				1			2			3
	Natural							1			1
	Suicide		1		1						2
	Undetermined										0
	Total	**0**	**7**	**3**	**3**	**2**	**1**	**4**	**0**	**0**	**20**
Orangeburg	*Accident*	1	2	3	1	2	1				10
	Homicide	1		2	1	2		1			7
	Natural	6	5	1	1	6	1				20
	Suicide				1	1	1				3
	Undetermined			1			1		1		3
	Total	**8**	**7**	**7**	**4**	**11**	**4**	**1**	**1**	**0**	**43**
Pickens	*Accident*	1	1	3	3	1	1	2	2		14
	Homicide	1		1		1			2		5
	Natural		1	1	1	2					5
	Suicide										0
	Undetermined			1		1					2
	Total	**2**	**2**	**6**	**4**	**5**	**1**	**2**	**4**	**0**	**26**
Richland	*Accident*	6	9	12	6	3	3			2	41
	Homicide	2	10	3	5	4	3		2	3	32
	Natural	7	4	7	8	1	1	1		4	33
	Suicide			1	1	1		2		2	7
	Undetermined			1		6	2	3	7	2	21
	Total	**15**	**23**	**24**	**20**	**15**	**9**	**6**	**9**	**13**	**134**

County	Manner of Death	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total
Saluda	*Accident*			1							1
	Homicide		1								1
	Natural		1		1						2
	Suicide										0
	Undetermined						1			1	2
	Total	**0**	**2**	**1**	**1**	**0**	**1**	**0**	**0**	**1**	**6**
Spartanburg	*Accident*	2	4	3	7	2	4		2		24
	Homicide		2	3	6	1	2	1			15
	Natural	2	4	6	3	2	4	1	1		23
	Suicide	2	1		1	1	3		1		9
	Undetermined	5	3	3	9	6	5	1	1		33
	Total	**11**	**14**	**15**	**26**	**12**	**18**	**3**	**5**	**0**	**104**
Sumter	*Accident*	3	2	3	1	1			1		11
	Homicide		3	1	2	1	1	2			10
	Natural	3	3	3	2	1					12
	Suicide	1									1
	Undetermined	2				1	1	1		2	7
	Total	**9**	**8**	**7**	**5**	**4**	**2**	**3**	**1**	**2**	**41**
Union	*Accident*		1								1
	Homicide									1	1
	Natural	1			3						4
	Suicide										0
	Undetermined										0
	Total	**1**	**1**	**0**	**3**	**0**	**0**	**0**	**0**	**1**	**6**
Williamsburg	*Accident*	3			2						5
	Homicide		1								1
	Natural	1				1					2
	Suicide										0
	Undetermined	2	1						1		4
	Total	**6**	**2**	**0**	**2**	**1**	**0**	**0**	**1**	**0**	**12**

County	Manner of Death	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total
York	*Accident*		4	5	2	2	1	1			15
	Homicide		3		1	1	1	1		3	10
	Natural	5	3	1	1	3	2	2			17
	Suicide			1	1		1		1	1	5
	Undetermined	1	2	3		2		1	1	1	11
	Total	**6**	**12**	**10**	**5**	**8**	**5**	**5**	**2**	**5**	**58**
Total	*Accident*	80	98	80	73	54	54	42	24	22	527
	Homicide	33	43	33	41	25	21	18	23	19	256
	Natural	68	76	60	56	39	32	23	4	7	365
	Suicide	10	5	8	8	14	11	5	8	11	80
	Undetermined	30	34	42	31	39	37	21	23	13	270
	Total	**221**	**256**	**223**	**209**	**171**	**155**	**109**	**82**	**72**	**1498**

Endnotes:

[i] Hoyert DL, Xu JQ. Deaths: Preliminary data for 2011. National vital statistics reports; vol 61 no 6. Hyattsville, MD: National Center for Health Statistics. 2012. http://www.cdc.gov/nchs/data/nvsr/nvsr60/nvsr60_04.pdf

[ii] Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Division of Violence Prevention. "Understanding Youth Violence: Fact Sheet." http://www.cdc.gov/Violenceprevention/pdf/YV-FactSheet-a.pdf

[iii] South Carolina State Department of Education. *2013 Youth Risk Behavior Survey*. http://ed.sc.gov/agency/se/Instructional-Practices-and-Evaluations/SouthCarolinaYouthRiskBehaviorSurveyYRBS

[iv] Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Division of Violence Prevention. Suicide Prevention. http://www.cdc.gov/Violenceprevention/pub/youth_suicide.html

[v] South Carolina Department of Health and Environmental Control, Division of Biostatistics, South Carolina Community Assessment Network (SCAN). http://scangis.dhec.sc.gov

[vi] South Carolina Department of Health and Environmental Control, Division of Biostatistics, South Carolina Community Assessment Network (SCAN). http://scangis.dhec.sc.gov

[vii] Centers for Disease Control and Prevention. Suffocation Deaths Associated with Use of Infant Sleep Positioners — United States, 1997–2011. MMWR November 23, 2012 / 61(46); 933-937. http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6146a1.htm.

[viii] Centers for Disease Control and Prevention. A Minute of Health with CDC--*Sleep Soundly and Safely Suffocation Deaths Associated with Use of Infant Sleep Positioners – United States, 1997-2011.* Recorded: November 27, 2012; posted: November 29, 2012. http://www2c.cdc.gov/podcasts/media/pdf/mmwr1_112912_transcript.pdf

[ix] American Academy of Pediatrics, Policy Statement SIDS and Other Sleep-Related Infant Deaths: Expansion of Recommendations for a Safe Infant Sleeping Environment, Pediatrics, November 2011, VOLUME 128 / ISSUE 5. www.pediatrics.org/cgi/doi/10.1542/peds.2011-2284 doi:10.1542/peds.2011-2284

[x] Merriam Webster Dictionary. http://www.merriam-webster.com/

[xi] Herman-Giddens, M. E., et al. (1999). "Underascertainment of child abuse mortality in the United States." JAMA **282**(5): 463-467.

[xii] Herman-Giddens, M. E., et al. (1999). "Underascertainment of child abuse mortality in the United States." JAMA **282**(5): 463-467

[xiii] National Center on Shaken Baby Syndrome. http://dontshake.org

[xiv] Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, Division of Violence Prevention. Shaken Baby Syndrome Tip Sheet. http://www.cdc.gov/healthmarketing/entertainment_education/tips/shaken_baby.htm.

[xv] Adapted from: 2011 Kansas Annual Report. http://www.ksag.org

[xvi] Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Division of Violence Prevention. WISQARS™ (Web-based Injury Statistics Query and Reporting System). http://www.cdc.gov/injury/wisqars/index.html

[xvii] Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, Division of Violence Prevention. Drownings: The Reality. http://www.cdc.gov/safechild/drowning/

[xviii] National Fire Protection Association
http://www.nfpa.org/~/media/Files/Research/Fact%20sheets/homesfactsheet.pdf

[xix] South Carolina Department of Labor, Licensing and Regulation, Division of Fire and Life Safety.
http://www.scfiremarshal.llronline.com/

[xx] Federal Emergency Management Agency. U.S. Fire Administration.
http://www.usfa.fema.gov/kids/discuss/index.shtm

[xxi] Pediatrics. Official Journal of the American Academy of Pediatrics. Firearm-Related Injuries Affecting the Pediatric Population. http://pediatrics.aappublications.org/content/early/2012/10/15peds.2012-2481.citation

[xxii] Schillie SF, Shehab, N, Thomas, KE, & Budnitz DS. Medication overdoses leading to emergency department visits among children. *Am J Prev Med 2009*; 37:181-187.

[xxiii] ATV Safety Institute http://www.atvsafety.gov/stats.html

[xxiv] http://ggweather.com/heat/per_capita.htm