STATE OF SOUTH CAROLINA



STATE CHILD FATALITY ADVISORY COMMITTEE

2020-2021 Report

The Honorable Henry McMaster, Governor, State of South Carolina The 124th South Carolina General Assembly



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State Child Fatality Advisory Committee (SCFAC) Membership

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The following are additional Resources available to South Carolina children and families. This is by no means an all-inclusive list of resources available.

- Resource library provided by the SC Department of Children's Advocacy: <u>https://childadvocate.sc.gov/resource-library</u>
- Prevention program geographical search by the Children's Trust of South Carolina: <u>https://scparents.org/</u>

State Child Fatality Advisory Committee (SCFAC) History and Mission

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.

The State Child Fatality Advisory Committee (SCFAC) was enacted in 1993. S.C. Code 63-11-1950 mandates that the State Child Fatality Advisory Committee (SCFAC) review completed investigations of deaths involving children age 17 years and younger that are unexpected, unexplained, suspicious, or criminal in nature. Since its enactment, the committee has completed review of 2,813 cases as of October 6, 2021.

The SCFAC regularly meets every other month and schedules reviews of 42 cases at each meeting, completing approximately 200 case reviews annually. Each case is presented by the State Law Enforcement Division (SLED) Special Victims Unit and is reviewed by the committee to analyze and develop an understanding of the causes and various manners of child deaths. This collaboration serves as a means to implement changes and initiate action within agencies represented on the committee and to propose changes in statutes, regulation, policies, and procedures to ultimately prevent and reduce the number of child deaths in South Carolina.

In addition to the SLED cases reviewed, the South Carolina Highway Patrol (SCHP) presents motor vehicle deaths at each meeting. The motor vehicle deaths reviewed are not exhaustive, limiting the data reporting by the committee for these fatalities. All motor vehicle traffic deaths are investigated by the South Carolina Department of Public Safety (SCDPS), who track and report data on these deaths separate from this report.

The mission of the committee is to decrease the incidence of preventable child deaths by:

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

The committee is composed of twenty (20) members, including law enforcement, legal, medical, state agencies working with children, political arenas, and two members from the general public. A full list of committee members can be found on page 4.

It is our 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

This report reflects the work of numerous dedicated professionals from communities 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 and the communities in which they impacted. We dedicate this report to the memory of these children and to their families.

Reported Edited by

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Confidentiality

Please note: Portions of the information and data contained in this report were compiled from records that are confidential and contain information which is protected from disclosure to the public, pursuant to the South Carolina Code 63-11-195.

I. Executive Summary

Mortality data provides an overall picture of child fatalities by number and cause of death. As a committee, we work to identify patterns in child fatalities that will guide efforts by agencies, communities, and individuals to decrease the number of preventable child deaths.



The South Carolina Department of Health and Environmental Control (DHEC) reports there were 1,324 fatalities in South Carolina from the ages of 0-17 in the years 2018-2019. Of these child fatalities, 573 (43% of deaths) were eligible for review by the State Child Fatality Advisory Committee (SCFAC) based on the criteria established by legislative mandate of unexpected and unexplained deaths. This criterion excludes motor vehicle traffic deaths on public roadways. This report reflects the findings from the 411 completed cases of the 573 total qualifying deaths occurring during the years 2018-2020 that have been reviewed by the committee. *DHEC has not released the total number of child fatalities in the calendar year 2020.

Since the initiation of this report in 2006, SCFAC has been assigned 3,369 cases for review. Of those, 2,811 (83.4%) have been completed. Of the deaths occurring from 2018-2020, there remains a balance of 157 cases to be completed. These cases are distributed as follows: 2018 (3 cases), 2019 (14 cases), and 2020 (140 cases).

Due to the COVID-19 pandemic, the committee did not meet April 2020 and failed to publish the 2020 SCFAC annual report. The 2021 SCFAC annual report covers SCFAC efforts during the time period of July 1, 2019 through October 6, 2021. Prior annual reports have aligned with the state fiscal year of July 1st through June 30th of the following year. In an effort to include the

most complete and recent data available through SCFAC case completions, the time frame of the efforts included in the 2021 annual report have been extended to include committee efforts through October 6, 2021.

All opinions and recommendations are those of the SCFAC membership. This report includes the results of 411completed case reviews for fatalities occurring during the years 2018-2020. Of these cases, the SCFAC review determined the following manners of death: Accidental (153 cases, 37.2%), homicide (94 cases, 22.9%), suicide (69 cases, 16.8%), and undetermined (95 cases, 23.1%). Please note that the committee does not review non-preventable natural deaths. Deaths that are preventable (e.g., infant deaths in an unsafe sleeping environment) and that are documented on the child's death certificate as natural are included in the undetermined case reviews for the committee.

Tables 1 - 3 provide a summary of the fatalities occurring in the years 2018-2020 that SCFAC has reviewed as of October 6, 2021. These competed case reviews are summarized by manner of death, gender, race, and ethnicity.

Table 1: 2018 Fatalities Manner of Death, Race, and Sex SCFAC Case Reviews Completed															
	African Hispanic American			Non-Hispanic White			Other			Totals					
Manner	Μ	F	Totals	Μ	F	Totals	Μ	F	Totals	Μ	F	Totals	М	F	Totals
Accidental	20	12	32	4	1	5	22	10	32	3	3	6	49	26	75
Homicide	23	11	34	3	1	4	5	4	9	0	0	0	31	16	47
Suicide	7	1	8	1	1	2	15	3	18	1	1	2	24	6	30
Undetermined*	11	10	21	2	0	2	11	9	20	2	1	3	24	18	42
Totals	61	34	95	10	3	13	53	26	79	6	5	11	128	66	198

* The SCFAC does not review non-preventable deaths. Deaths classified as Natural on the death certificate are included in the Undetermined case reviews for the SCFAC.

Of the 198 SCFAC reviewed cases of child deaths occurring during 2018, the manner of death determination revealed 75 (37.9%) were accidental, 47 (23.7%) were homicide, 30 (15.2%) were suicide, and 42 (21.2%) were undetermined or preventable natural deaths. The cases reviewed revealed 95 (48.0%) were African American, 79 (39.9%) were non-Hispanic White, 13 (6.6%) were Hispanic, and 11 (5.6%) were categorized as Other (includes Native Americans, multi-racial, and/or Asian).

Table 2: 2019 Fatalities Manner of Death, Race, and Sex SCFAC Case Reviews Completed															
	African American			Hispanic		Non-Hispanic White		Other			Totals				
Manner	Μ	F	Totals	Μ	F	Totals	Μ	F	Totals	Μ	F	Totals	Μ	F	Totals
Accidental	17	8	25	4	0	4	21	9	30	1	2	3	43	19	62
Homicide	14	5	19	3	0	3	10	3	13	1	0	1	28	8	36
Suicide	4	0	4	3	0	3	23	2	25	0	1	1	30	3	33
Undetermined*	10	11	21	3	3	6	10	3	13	4	2	6	27	19	46
Totals	45	24	69	13	3	16	64	17	81	6	5	11	128	49	177

* The SCFAC does not review non-preventable deaths. Deaths classified as Natural on the death certificate are included in the Undetermined case reviews for the SCFAC.

Of the 177 SCFAC reviewed cases of child deaths occurring during 2019, the manner of death determination revealed 62 (35.0%) were accidental, 36 (20.3%) were homicide, 33 (18.6%) were suicide, and 46 (26.0%) were undetermined or preventable natural deaths. The cases reviewed revealed 69 (39.0%) were African American, 81 (45.8%) were non-Hispanic White, 16 (9.0%) were Hispanic, and 11 (6.2%) were categorized as Other (includes Native Americans, multi-racial, and/or Asian).

Table 3: 2020 Fatalities Manner of Death, Race, and Sex SCFAC Case Reviews Completed															
African His American			Hispanic Non-Hispanic White			Other			Totals						
Manner	Μ	F	Totals	Μ	F	Totals	Μ	F	Totals	Μ	F	Totals	М	F	Totals
Accidental	2	2	4	0	0	0	5	5	10	1	1	2	8	8	16
Homicide	6	1	7	0	1	1	1	2	3	0	0	0	7	4	11
Suicide	2	0	2	0	0	0	4	0	4	0	0	0	6	0	6
Undetermined*	1	2	3	0	0	0	0	0	0	0	0	0	1	2	3
Totals	11	5	16	0	1	1	10	7	17	1	1	2	22	14	36

* The SCFAC does not review non-preventable deaths. Deaths classified as Natural on the death certificate are included in the Undetermined case reviews for the SCFAC.

Of the 36 SCFAC reviewed cases of child deaths occurring during 2019, the manner of death determination revealed 16 (44.4%) were accidental, 11 (30.6%) were homicide, 6 (16.7%) were suicide, and 3 (8.3%) were undetermined or preventable natural deaths. The cases reviewed revealed 16 (44.4%) were African American, 17 (47.2%) were non-Hispanic White, 1 (2.8%) were Hispanic, and 2 (5.6%) were categorized as Other (includes Native Americans, multi-racial, and/or Asian).

Table 4 provides a summary of fatalities occurring from 2018-2020 that SCFAC has reviewed as of October 6, 2021 by county.

Table 4: SCFAC Completed Case Reviews by County											
County	2018	2019	2020	Totals	% of Cases Reviewed						
Abbeville	1	1	0	2	0.5%						
Aiken	7	4	0	11	2.7%						
Allendale	1	1	0	2	0.5%						
Anderson	4	8	5	17	4.1%						
Bamberg	0	1	0	1	0.2%						
Barnwell	0	2	0	2	0.5%						
Beaufort	2	8	0	10	2.4%						
Berkeley	3	5	1	9	2.2%						
Calhoun	0	0	0	0	0.0%						
Charleston	24	23	0	47	11.4%						
Cherokee	0	1	0	1	0.2%						
Chester	2	1	0	3	0.7%						
Chesterfield	3	2	0	5	1.2%						
Clarendon	0	0	0	0	0.0%						
Colleton	4	2	1	7	1.7%						

Darlington	2	1	0	3	0.7%
Dillon	3	1	1	5	1.2%
Dorchester	5	6	1	12	2.9%
Edgefield	1	0	0	1	0.2%
Fairfield	2	0	0	2	0.5%
Florence	13	6	3	22	5.4%
Georgetown	1	2	1	4	1.0%
Greenville	14	17	5	36	8.8%
Greenwood	3	1	0	4	1.0%
Hampton	1	3	0	4	1.0%
Horry	11	12	1	24	5.8%
Jasper	3	0	0	3	0.7%
Kershaw	1	0	0	1	0.2%
Lancaster	2	2	0	4	1.0%
Laurens	2	3	2	7	1.7%
Lee	1	2	0	3	0.7%
Lexington	8	10	0	18	4.4%
Marion	1	0	1	2	0.5%
Marlboro	3	1	0	4	1.0%
McCormick	3	0	0	3	0.7%
Newberry	1	2	0	3	0.7%
Oconee	3	4	1	8	1.9%
Orangeburg	5	2	2	9	2.2%
Pickens	3	3	0	6	1.5%
Richland	25	18	0	43	10.5%
Saluda	0	2	0	2	0.5%
Spartanburg	14	8	8	30	7.3%
Sumter	4	5	2	11	2.7%
Union	0	0	1	1	0.2%
Williamsburg	2	0	0	2	0.5%
York	10	7	0	17	4.1%

II. Leading Causes of Child Deaths

Mortality data is useful for identifying trends and prevention opportunities. The data included in this section is compiled from various sources including the Centers for Disease Control and Prevention (CDC) and the South Carolina Department of Health and Environmental Control (DHEC) and is intended to provide an overall picture of child mortality data in South Carolina.

The leading causes of death in children vary by age group. Mortality data from the CDC Injury Center is summarized in Table 5 to include the leading causes of death in South Carolina by age category and the leading causes of death nationally for the same age category.

Table 5: Leading Causes of Death by Age Category								
	South Carolina	National						
Age Category	Leading Causes	Leading Causes						
Infant (Less	1. Congenital Anomalies	1. Congenital Anomalies						
than 1)								
	2. Short Gestation	2. Short Gestation						
	3. Maternal Pregnancy Complications	3. Maternal Pregnancy						
		Complications						
	4. SIDS	4. SIDS						
	5. Unintentional Injury	5. Unintentional Injury						
Ages 1-5	1. Unintentional Injury	1. Unintentional Injury						
	2. Homicide	2. Congenital Anomalies						
	3. Congenital Anomalies	3. Cancer						
	4. Cancer	4. Homicide						
	5. Influenza & Pneumonia	5. Influenza & Pneumonia						
Ages 6-10	1. Unintentional Injury	1. Unintentional Injury						
	2. Malignant Neoplasms	2. Cancer						
	3. Homicide	3. Congenital Anomalies						
	4. Congenital Anomalies	4. Homicide						
	5. Influenza & Pneumonia	5. Heart Disease						
	5. Suicide – tied for 5^{th} with influenza and							
	pneumonia							
Ages 11-15	1. Suicide	1. Unintentional Injury						
	2. Unintentional Injury	2. Suicide						
	3. Homicide	3. Cancer						
	4. Cancer	4. Homicide						
	5. Congenital Anomalies	5. Congenital Anomalies						
Ages 16-17	1. Unintentional Injury	1. Unintentional Injury						
_	2. Suicide	2. Suicide						
	3. Homicide	3. Homicide						

Data Source: CDC WISQARS, CDC, Injury Center¹

Infant Mortality Summary

The leading causes of death in the United States and in South Carolina from 2018-2019 for infants (less than one year) were congenital anomalies, short gestation, maternal pregnancy complications, SIDS, and unintentional injury.¹ Infant mortality considers deaths of an infant less than one year in age. Calculating infant mortality as a rate per 1,000 live births provides key information surrounding maternal and infant health and is considered an important marker of overall societal health. In 2018 and 2019, the Infant Mortality Rate (IMR) in South Carolina was

¹ "WISQARS Leading Causes of Death Reports," Centers for Disease Control and Prevention, accessed September 28, 2021, https://webappa.cdc.gov/sasweb/ncipc/leadcause.html.

7.11 and 6.97.² South Carolina ranks as the 9th highest state in the United States for infant mortality according to the CDC's National Center for Health Statistics.²

The DHEC reports that racial disparity for infant mortality is a concern in South Carolina. According to DHEC's 2019 Infant Mortality report, infant mortality rates of births to White mothers decreased 9.8% from 2018-2019, while the infant mortality rate among births to minority women has remained constant from 2018-2019 at a rate of 11.1 (2018) and 11.2 (2019).³ Despite the birth rates remaining stable in minority women, DHEC reports the racial disparity gap was at its widest point during 2019 than in the five years prior.³

The committee's focus on preventable child deaths includes case reviews on sudden unexpected infant deaths (SUID). SUID are deaths in infants less than one year old and have no immediate obvious cause. SUID deaths most commonly include deaths as a result of sudden infant death syndrome (SIDS), unknown causes, and accidental suffocation in bed. According to the CDC, the national SUID rate in 2019 was .901 deaths per 1,000 live births.⁴ The CDC reports that in 2019, 28.3% of SUID deaths nationally were a result of accidental suffocation in bed.⁴ Figure 2 provides the breakdown of SUID deaths by cause in 2019.



2019

Figure 2: Sudden Unexpected Infant Deaths by Cause,

Data Source: CDC Wonder, CDC, National Vital Statistics System⁴

South Carolina ranks 15th in SUID deaths with a rate of 1.16 per 1,000 live births in 2019.⁴ Beginning in 1990 SUID deaths as a result of accidental suffocation in bed declined drastically. This decline corresponded with the release of the American Academy of Pediatrics safe sleep recommendations in 1992, the Back to Sleep campaign in 1994, and the release of the SUID Investigation Reporting Form in 1996. The decline in SUID deaths from accidental suffocation in bed stopped in 1999 when the rate began to climb. Nationally, SUID deaths as a result of

² "Stats of the States - Infant Mortality," Centers for Disease Control and Prevention, March 12, 2021, https://www.cdc.gov/nchs/pressroom/sosmap/infant mortality rates/infant mortality.htm.

³ "Infant Mortality and Selected Birth Characteristics: 2019 South Carolina Residence Data" (South Carolina Department of Health and Environmental Control, October 2020), https://scdhec.gov/sites/default/files/Library/CR-012142.pdf.

⁴ "Sudden Unexpected Infant Death and Sudden Infant Death Syndrome," Centers for Disease Control and Prevention (Centers for Disease Control and Prevention, April 28, 2021), https://www.cdc.gov/sids/data.htm#pie.

accidental suffocation in bed have trended upwards overall, although did decrease in South Carolina by 13.3% from 2018 to 2019. Despite infant deaths in South Carolina resulting from accidental suffocation in bed decreasing in recent years, the number of SIDS deaths in South Carolina increased from 14 deaths in 2018 to 19 deaths in 2019.³

Youth Injury Mortality Summary

Injury deaths are the leading cause of mortality in children. Causes of injury-related deaths include unintentional injuries, homicides, suicides, and those from undetermined intent. From 2018-2019 the national youth injury-related death rate was 16.21 (age-adjusted). Figure 3 maps the age-adjusted injury-related death rates for youth in the United States. The state with the lowest rate of youth injury-related deaths from 2018 to 2019 is Rhode Island with an age-adjusted rate of 5.9. Alaska reports the highest rate of youth injury-related deaths with an age-adjusted rate of 34.5. South Carolina ranks 41st with an age-adjusted rate of 24.8 from 2018-2019.⁵



Figure 3: Youth Injury-Related Deaths *Age-adjusted rates, 2018-2019*

Source: CDC WISQARS, CDC, Fatal Injury Data ⁵

In South Carolina, injury-related deaths in youth are most often unintentional. Data from the CDC Web-based Injury Statistics Query and Reporting System (WISQARS) reports that 56.7% of South Carolina youth injury deaths are unintentional, followed by 24% being homicides, 17.3% being suicides, and 2.1% being of undetermined intent.⁵

⁵ "WISQARS Fatal Injury Reports," Centers for Disease Control and Prevention, accessed September 28, 2021, https://webappa.cdc.gov/sasweb/ncipc/mortrate.html.



Source: CDC WISQARS, CDC, Fatal Injury Data ⁵

Unintentional Youth Injury Deaths

Unintentional injury fatalities account for the largest percentage of youth injury-related deaths in South Carolina. These deaths are the result of accidents such as motor vehicle and other transportation accidents, accidental discharge of firearms, drownings, exposure to smoke and fire, and accidental poisonings.

Table 6: Causes of Injury DeathsFatalities occurring 2018-2019Ages 0-17		
Cause of Injury	2018	2019
Transportation accidents (motor vehicle, water, air, land)	65	57
Drowning	10	16
Accidental exposure to smoke, fire, and flames	6	1
Accidental discharge of firearm	3	3
Accidental poisoning	2	2
Other and unspecified non-transportation accidents	48	38
Source: SC DHEC SCAN ⁷		·

Older youth experience a higher frequency of unintentional injury deaths related to transportation accidents and accidental poisonings than younger age groups. Drownings, exposure to smoke and fire, as well as accidental firearm discharge deaths occur more frequently in younger populations.

	Table 7: Unintentional Injury Deathsby Cause and AgeFatalities occurring 2018-2019										
Age	e Transportation Accidental discharge of firearm of firearm and flames and flames accidents										
0-1	4	0	2	0	0	64					
1-4	21	3	14	5	1	16					
5-9	22	1	3	2	0	2					
10-14	19	1	3	0	0	1					
15-17	56	1	4	0	3	3					

Source: SC DHEC SCAN⁷

Motor vehicle accidents: During 2018-2019 there were 2,151 deaths from transportation accidents in South Carolina: motor vehicle accident fatalities (2,050) other land transportation accident fatalities (51), to include water, air, and other unspecified transportation accident fatalities (50). Of these transportation fatalities, approximately 5.6% (122 fatalities) involved children ages 17 years and younger. Of the 122 transportation fatalities in youth reported by SC DHEC during 2018-2019, 56 were ages 15-17 (45.9%).⁶

Drownings: Nationally, drowning is the second leading cause of unintentional injury deaths in children ages 1-14. For every child who dies from drowning, another eight children receive emergency medical treatment for non-fatal or near drowning events.⁷ Close supervision, effective barriers to pool or water access, and the use of life jackets are recommended strategies to reduce the occurrence of drowning deaths.

Drowning deaths occur most frequently in younger children. During 2018-2019 there were 26 drowning deaths occurring in ages 0-17 reported in SC DHEC SCAN data: ages 0 to 1 (2 deaths, 7.7%), ages 1 to 4 (14 deaths, 53.8%), ages 5 to 9 (3 deaths, 11.5%), ages 10 to 14 (3 deaths, 11.5%), ages 15 to 17 (4 deaths, 15.4%).

Males account for the majority of drowning fatalities. Nationally, males account for approximately 80% of drowning deaths at all ages.⁷ Of the 26 drowning fatalities that occurred in South Carolina youth from 2018-2019, 21 of the 26 were males (80.7%). Sixty-five percent of the 26 SC drowning fatalities occurred among White children (17 of 26) and 34.6% among African American children (9 of 26). Drowning-related deaths among males account for 88.2% of the drowning fatalities among Whites (15 of 17 White drowning deaths). For African American children, 66.7% of drowning deaths occurred in males (6 of the 9 African American drowning deaths).

⁶ "DHEC SCAN Death Certificate Data," SCAN Death Tables (South Carolina Department of Health and Environmental Control), accessed September 28, 2021,

https://apps.dhec.sc.gov/Health/SCAN_BDP/tables/death2table.aspx.

⁷ "Drowning Facts," Centers for Disease Control and Prevention, June 17, 2021, https://www.cdc.gov/drowning/facts/index.html.

Table 8: Accidental drowning and submersion fatalitiesBy sex and race, Ages 0-17, 2018-2019										
RaceMaleFemaleSelection Total										
White	15	2	17							
African American	6	3	9							
Other	0	0	0							
Totals	21	5	26							

Source: SC DHEC SCAN⁷

Youth Homicide

Peer Violence: Homicide is a top three leading cause of death in the United States and in South Carolina for adolescents and young adults. Youth violence includes a wide range of behaviors that can include bullying and physical fighting, to more severe assaults resulting in serious injury or death. A young person may be involved as the victim, the offender, or as a witness. Disparities in age, race and gender related to youth violence are highlighted in the 2019 Youth Risk Behavior Survey (YRBS).⁸ Nationally, 7.4% of high school students responding to the YRBS reported being threatened or injured with a weapon at school during the past year. More male students were threatened or injured with a weapon at school than female students. South Carolina students responding to this question reported a higher occurrence as evident by Figure 5.

Figure 5: Percentage of High School Students Threatened or Injured with a Weapon on School Property



Source: 2019 YRBS 8

Nationally, 21.9% of YRBS respondents reported being in a physical fight outside of school property in the prior year, including 28.3% of males and 15.3% of females. Thirty percent of African Americans, 33% of Hispanic, and 20% of White students reported being in a physical

⁸ "High School YRBS: South Carolina 2019 and United States 2019 Results," Centers for Disease Control and Prevention, n.d., https://nccd.cdc.gov/Youthonline/App/Results.aspx?LID=SC

fight at least once during the prior year. Overall, 4.4% of YRBS respondents reported carrying a gun for reasons other than hunting or sport, including 7.1% of African American students, 5.6% of Hispanic students, and 3.3% of White students.

Homicide by a caregiver: Homicides resulting from abuse and/or neglect most often occur in young children when the child is in the care of a relative or someone that the child knows. According to the Children's Bureau, 45.4% of maltreatment deaths occur in children younger than 1 year of age.⁹



Source: Children's Bureau, U.S. DHHS 9

Abusive head trauma (ABH), which includes shaken baby syndrome, is a term used to describe the physical abuse from violent shaking and/or blunt impact. The resulting injuries may include bleeding around the brain or behind the eyes and can cause serious, long-term health consequences or death. The CDC reports that abusive head trauma is the leading cause of physical abuse deaths in children under the age of five and that babies less than one year of age are at the greatest risk of abusive head trauma.¹⁰ Abusive head trauma often happens when a parent or caregiver becomes frustrated with a child's crying and inconsolability.

The incidence of child abuse may be the result of abuse recurring over time or may be a result of a single incident in which a parent or caregiver becomes frustrated and reacts by harming the child. The CDC reports the incidence of child abuse appears associated with risk factors

⁹ "Child Abuse and Neglect Fatalities 2019: Statistics and Interventions" (Children's Bureau , March 2021), https://www.childwelfare.gov/pubpdfs/fatality.pdf.

¹⁰ "Preventing Abusive Head Trauma in Children," Centers for Disease Control and Prevention, March 15, 2021, https://www.cdc.gov/violenceprevention/childabuseandneglect/Abusive-Head-

 $Trauma.html \#: \sim: text = Abusive \% 20 head \% 20 trauma \% 20 (AHT) \% 2C, because \% 20 of \% 20 a\% 20 child's \% 20 crying.$

surrounding the individual, family, and community. Risk factors at the individual level include caregivers with substance abuse issues, mental health issues, a generational history of abuse or neglect, families with high levels of economic stress, and caregivers who do not understand children's needs or development. Risk factors at the family level include families with members incarcerated, families isolated from extended family, friends, or neighbors, domestic violence, and families with poor or negative communication styles to include high levels of conflict. At the community level, risk factors include communities with high rates of crime, poverty, and unemployment, few community activities for young people, unstable housing, and food insecurity.¹¹

Youth Suicide

Suicide is one of the leading causes of death in youth ages 10-17. Adolescence is a time of tremendous growth and transitions involving education, employment, relationships, and living circumstances that can be difficult to navigate, leading to mental health challenges that can be associated with increased risk for suicide. It is reported that for every suicide death among young people, there may be 100 to 200 suicide attempts. The incidence of suicidal behavior is even higher amongst those involved in the child welfare and juvenile justice systems, those in the LGBTQ community, and American Indian/Alaskan Natives.¹² According to CDC WISQARS data, the national suicide rate of children ages 10-17 is 5.19 per 100,000 during 2018-2019. The Southern region has a similar rate of 5.12. The suicide rate in South Carolina for ages 10-17 is 6.67.⁵



Figure 7: Regional Suicide Fatality Rates Ages 10-17, 2018-2019

Source: CDC WISQARS, CDC, Fatal Injury Data ⁵

¹¹ "Risk and Protective Factors," Centers for Disease Control and Prevention, March 15, 2021,

https://www.cdc.gov/violenceprevention/childabuseandneglect/riskprotectivefactors.html.

¹² Suicide prevention, accessed September 28, 2021, https://youth.gov/youth-topics/youth-suicide-prevention.

DHEC SCAN data reports 68 suicide deaths in South Carolina children ages 17 and younger during the years 2018-2019. These deaths occurred in ages 10-17, with ages 15 to 17 having the highest occurrence with 43 of the 68 deaths (63.2%). Of these 68 youth suicides, 51 were among White children (75%), 14 were among African American children (20.6%), and 3 were among other races (4.4%).⁷

Table 9: Suicide Fatalitiesby age and raceAges 0-17, 2018-2019							
Age	White	African American	Other	All Races			
10 to 14	16	7	2	25			
15 to 17	35	7	1	43			
Totals 51 14 3 68							
	Source: SC DHEC SCAN ⁷						

In suicide deaths among White children, 43 of the 51 deaths (84.3%) were male and 8 were female (15.7%). In suicide deaths among African American children, 11 of the 14 deaths (78.6%) were male and 3 were female (21.4%). In other races 2 of the 3 deaths (66.7%) were male and 1 of the 3 were female (33.3%).⁷

Table 10: Suicide Fatalitiesby race and sexAges 0-17, 2018-2019					
Sex	White	African American	Other	All Races	
Male	43	11	2	25	
Female	35	7	1	43	
Totals	51	14	3	68	

Source: SC DHEC SCAN⁷

The COVID-19 pandemic has disrupted the lives of individuals across ages, including having significant impact on the lives of adolescents. The CDC reports emergency department visits for suicide attempts among U.S. females rising by nearly 51% during the height of the pandemic compared to the same pre-pandemic time period. It is reported that the rate for male suicide attempts has also increased, although to a lesser degree of 3%. The CDC recommends prevention strategies aimed at increasing social connectedness, teaching coping skills, learning to recognize the signs of suicide and how to respond, along with limiting access to commonly utilized self-harm mechanisms such as medications and firearms to help prevent suicide attempts.¹³

¹³ Ellen Yard et al., "Emergency Department Visits for Suspected Suicide Attempts among Persons Aged 12–25 Years before and during the COVID-19 Pandemic — United States, January 2019–May 2021," *MMWR. Morbidity and Mortality Weekly Report* 70, no. 24 (2021): pp. 888-894, https://doi.org/10.15585/mmwr.mm7024e1.

III. 2018-2020 Fatality Findings - SCFAC Case Reviews Completed

Note: Although incomplete (36 of 176 assigned cases completed) 2020 is included in the next sections, since it represents the most recent available data.

Homicide

Homicide is the act or instance of unlawfully killing another human being, whether intentionally or unintentionally. In 2019 South Carolina had a total of 527 homicides (10.24 crude rate), 40 (3.60 crude rate) of which were children 0 to 17 years of age.⁵

SCFAC Case Reviews – Homicide Deaths occurring from 2018-2020

Cases Assigned	573
Cases Completed:	411
Homicide:	94
Percent of Completed Cases:	22.9%

Of the deaths occurring in 2018 through 2020, the committee has completed its review of 411 cases with 94 (22.9%) cases

determined with a manner of homicide. Of these 94 cases, 60 (63.8%) were African American, 25 (26.6%) were White, 8 (8.5%) were Hispanic, and 1 (1.1%) was categorized as Other (includes Native Americans, Biracial, and/or Asian). Table 11 breaks down the completed cases by year of death and race and ethnicity.

Table 11: SCFAC Completed Cases: Homicide by race and ethnicity Deaths occurring 2018-2020					
2018 2019 2020 Tota					
African American	34	19	7	60	
Non-Hispanic White	9	13	3	25	
Hispanic	3	3	1	7	
Other (Native Americans, multi-racial, and/or Asian)	1	1	0	2	
Totals	47	36	11	94	

Cases reviewed revealed that homicide cases for ages 0-4 were most often committed by the child's biological parents through acts of physical violence without an external weapon (i.e. beating and suffocation). Middle childhood showed the fewest homicide cases across the age categories. Older youth homicide case reviews revealed most teenage homicide deaths involved a male victim. (Table 12)

Table 12: SCFAC Completed Cases: Homicide by age category and sex Deaths occurring 2018-2020								
2018 2019 2020 Totals							otals	
	Male	Female	Male	Female	Male	Female	Male	Female
Infant (less than 1 year of age)	7	4	3	2	0	0	10	6
Ages 1-4	6	2	6	1	0	2	12	5
Ages 5-9	1	3	3	2	0	1	4	6
Ages 10-14	2	4	2	3	1	0	5	7
Ages 15-17	15	3	14	0	6	1	35	4
Totals	31	16	28	8	7	4	66	28

Homicide involving caregiver(s): Of all 411 cases reviewed, 99 cases (24.1%) showed evidence of maltreatment surrounding the child's death. When a child dies, the immediate circumstances surrounding the death do not always indicate that a homicide has occurred. There are cases through thorough investigation and autopsy that other evidence is obtained to strongly suggest that the death is a homicide as a result of abuse and/or neglect. Some injuries are the result of a deliberate act to do harm whereas other injuries may have no external signs of trauma.

Of the 94 homicide cases reviewed by the committee, 40 (42.5%) were cases in which the death was caused by a caregiver. The ages of the children in these cases spanned from less than one to 14 years of age.

The incidence of child maltreatment is complex, involving many systems and family stressors. Efforts to reduce the occurrence of child maltreatment and maltreatment fatalities must take a systemic approach to family, community, and economic disparities.

Youth violence: Many of the reviewed homicide cases of older youth were male victims and involved peer violence. Of the 94 homicide cases reviewed, 46 (48.9%) were deaths of children ages 13-17. Of these 46 cases, the vast majority are the result of assaults by an individual not in a caregiving role to the child. One case was classified as child abuse, 2 were determined to be unintentional homicides due to accidental shootings, and 43 (93.5%) were acts of violence perpetrated by someone not serving as a caregiver to the child (i.e. acquaintance, friend, stranger). The majority of these homicides were the result of violence by an acquaintance or friend to the victim child. Of these 43 cases, 31 were homicides committed by an acquaintance or friend to the child, 8 were by a suspect that has not yet been identified or the relation to the victim child is unknown, 2 were by strangers, and 2 were by other relatives to the child not serving in a parenting capacity.



National statistics of youth violence reveal behavioral patterns in many youth violence cases to include being in a physical fight, carrying a weapon, and/or experiencing threatening behavior on school property.¹⁴ Many of the 13-17 year old homicide cases reviewed occurred during the

¹⁴ "Preventing Youth Violence Fact Sheet" (Centers for Disease Control and Prevention), accessed September 28, 2021, https://www.cdc.gov/violenceprevention/pdf/yv/YV-factsheet_2020.pdf.

commission of another crime (i.e., gang conflict, drug trade, robbery, and interpersonal violence). Of the 46 homicide cases among 13-17 year olds, cases revealed 40 (87.0%) occurred during the commission of another crime involving an individual not serving as a caregiver to the child. All 40 of these deaths were the result of gunshot wounds, predominately from handguns. Most of these cases (16 of 40, 40%) were deaths as a result of interpersonal violence, which includes assaults stemming from an argument that escalated to violence resulting in death, assaults between non-gang affiliated groups, and other incidents of violence without an identifiable other crime occurring. A summary of cases in which the death occurring during the commission of other crimes is included in Figure 9.



Figure 9 Homicides during other crime types

There are numerous factors to consider when determining what puts youth at higher risk for engaging in risky behavior. These factors include mental health issues, substance abuse, delinquent behavior, experiencing maltreatment, and lack of community engagement and resources.

The committee includes representation from the State agencies supporting children and families, including the SC Department of Mental Health (DMH), SC Department of Social Services (DSS), SC Department of Juvenile Justice (DJJ), SC Department of Education (DOE), and the SC Department of Alcohol and Other Drug Abuse Services (DAODAS). Encounters that children and families have with these agencies are discussed through the case reviews and the data in the following section comes from state agency involvement with the children of these cases. This is noted because the committee does not have access to services that these children may have received through private means, such as private counseling or treatment.

Table 13 summarizes the frequency in which the children reviewed as part of the 40 teenage homicides unrelated to caregiver maltreatment, had prior involvement with the DMH, DSS, DJJ, DOE, and/or DAODAS.

Please note that cases denoting prior involvement for the Department of Education is only noted when the child had issues related to behavior, truancy, suspensions, expulsions, and/or other significant concerns noted by the education system.

	Table 13: Teenage homicide prior agency involvement						
	Ages 13-17						
		2018-2020	fatalities, SCFA	AC completed case	S		
	Prior Involvement: Yes Prior Involvement: No Prior Involvement: Unknown						
Agency	Frequency	% (of 40	Frequency	% (of 40	Frequency	% (of 40 cases)	
		cases)		cases)			
DMH	20	50%	15	37.5%	5	12.5%	
DSS	11	27.5%	29	72.5%	0	0%	
DJJ	25	62.5%	12	30.0%	3	7.5%	
DOE	19	47.5%	10	25%	11	27.5%	
DAODAS	33	82.5%	4	10.0%	3	7.5%	

Geographical analysis of these cases revealed these teenage homicide cases occurred relatively scattered across the state. South Carolina's violent crime rate is 51.5 (per 10,000), but variations of violent crime exist by county and even further by zip code.¹⁵ Of the 40 teenage homicides unrelated to child maltreatment by a parent, 17 of these children resided in an area where the violent crime rate is higher than the state average of 51.5, accounting for 42.5% of the 40 cases reviewed. The remaining 23 children resided in areas where the crime rate was at, or lower than the state average (57.5%).



¹⁵ "Crime in South Carolina 2019" (South Carolina Law Enforcement Division and the South Carolina Department of Public Safety, n.d.), <u>https://www.sled.sc.gov/forms/statistics/2019%20Crime%20in%20South%20Carolina.pdf</u>.

Suicide

Suicide fatalities are a result of self-injury with the intent to die. In 2018-2019 South Carolina had a suicide rate of 6.67 in children ages 10-17 which is above the regional rate of 5.12^{5}

Of the deaths occurring in 2018 through 2020, the committee has completed its review of 411 cases with 69 (16.8%) cases determined with a manner of suicide. Of these

SCFAC Case Reviews – Suicide Deaths occurring from 2018-2020 **Cases Assigned** 573 **Cases Completed:** 411 Suicide: 69 **Percent of Completed Cases:** 16.8%

69 cases, 14 (20.3%) were African American, 47 (68.1%) were White, 5 (7.2%) were Hispanic,

and 3 (4.3%) were categorized as Other (includes Native Americans, multi-racial, and/or Asian).

Table 14: SCFAC Completed Cases: Suicide

	2018	2019	2020	Totals
African American	8	4	2	14
Non-Hispanic White	18	25	4	47
Hispanic	2	3	0	5
Other (Native Americans, multi-racial, and/or Asian)	2	1	0	3
Totals	30	33	6	69

by race/ethnicity

Case reviews revealed that most suicide cases reviewed involved males, representing 60 (87.0%) of the 69 cases reviewed. Females represented 13.0% of the suicide cases reviewed. Analysis by age revealed 28 cases (40.6%) involved children ages 10 to 14 and 41 cases (59.4%) occurring in ages 15-17.

			by age o Deaths occ	category and se curring 2018-2	ex 2020			
2018 2019 2020 Totals						otals		
	Male	Female	Male	Female	Male	Female	Male	Female
Ages 10-14	9	3	13	1	2	0	24	4
Ages 15-17	15	3	17	2	4	0	36	5
Totals	24	6	30	3	6	0	60	9

Table 15: SCFAC Completed Cases: Suicide

Suicide remains a leading cause of death in late childhood and adolescence, resulting in not only the direct loss of young lives, but also having adverse impacts on psychosocial and socioeconomic effects. Having good insight into the risk factors contributing to youth suicides can help guide prevention efforts. Risk factors of adolescent suicide include, but are not limited to, mental disorders, previous suicide attempts, triggering psychosocial stressors, and availability of means of committing suicide.¹⁶

¹⁶ Johan Bilsen, "Suicide and Youth: Risk Factors," Frontiers in Psychiatry 9 (2018), https://doi.org/10.3389/fpsyt.2018.00540.

Completed case reviews revealed that 34 (49.3%) of the 69 suicide cases reviewed involved children with a diagnosed mental health disorder including anxiety, depression, bipolar disorder, impulse control/conduct disorder, substance abuse disorder, and/or eating disorders. Of the 34 children with a mental health disorder, 28 were diagnosed with depression. Many of these children had multiple mental health diagnoses, with 21 of the 34 having more than one mental health diagnosis.

Of the 69 suicide cases reviewed, toxicological testing was conducted on 64. Analysis of these cases revealed 19 positive toxicological results (29.7%).

Table 16: SCFAC Suicide Cases Toxicological Findings Deaths occurring 2018-2020						
Frequency Percent						
Total Suicides	69	NA				
Tox. Conducted	64	92.80%				
Negative toxicological results	45	70.30%				
Positive toxicological results	19	29.70%				

The CDC reports alcohol, marijuana, and tobacco are the most commonly used substances by adolescents with approximately 66.7% of 12th graders having tried alcohol and approximately 50% of high school students reporting ever having used marijuana.¹⁷ Of the 64 suicide cases with a toxicology conducted, 14.1% were positive for marijuana, 4.7% were positive for alcohol, 4.7% were positive for over the counter medications in excess levels, and 6.3% showed other toxicological findings. The other findings include prescription drugs exceeding therapeutic levels, LSD, kratom, polysubstance use, and insufficient levels of prescribed medications. These substances are grouped together due to limited findings for these substances and serves as a means to protect the identity of these children. Please note these drugs did not cause the death in all cases.

Table 17: SCFAC Suicide Cases							
Toxie	cological Find	ings by Substance					
Deaths occurring 2018-2020							
Substance	Substance Frequency Percent						
		(of 64 cases toxicological testing was conducted)					
Alcohol	3	4.7%					
Marijuana	9	14.1%					
Over the counter medications	3	4.7%					
(exceeding therapeutic levels)							
Other findings*	6	6.3%					

Table 17. SCEAC Swieide Cases

*includes prescription drugs exceeding therapeutic levels, LSD, kratom, polysubstance use, and insufficient levels of prescribed medications.

¹⁷ "Teen Substance Use & Risks," Centers for Disease Control and Prevention (Centers for Disease Control and Prevention, February 10, 2020), https://www.cdc.gov/ncbddd/fasd/features/teen-substance-use.html.

Many of the suicide cases reviewed showed a history of suicidal behavior, including preparatory behavior, prior suicide attempts, and/or the child communicating suicidal thoughts or intentions. Of the 69 suicide cases reviewed, 37 (53.6%) cases involved a child with a history of these types of suicidal behavior.

Recognizing the warning signs may help determine if a person is at risk for suicide, particularly for new or increasing behaviors, or behaviors related to a painful event or recent tragedy.¹⁸ These warning signs include talking about or researching suicide, feelings of hopelessness, a perception of being a burden on others, changes in behavior (i.e., withdrawing, extreme mood swings, sleep disruption, increasing alcohol/drug usage), and experiencing a recent crisis. Case reviews revealed that of the 69 suicide cases, 46 (66.7%) involved a young person showing at least one of these types of warning signs.

The National Suicide Prevention Lifeline offers free and confidential access to counselors to help individuals experiencing a crisis. This service includes a 1-800 number, online crisis chat, and 24/7 crisis text line.

- Call 1-800-273-TALK (1-800-273-8255)
- Online Lifeline Crisis Chat: <u>https://suicidepreventionlifeline.org/chat/</u>
- Text HOME to 74171

Educating everyone on the warning signs of suicide and on resources available, such as the National Suicide Prevention Lifeline are some prevention methods that everyone can be a part of. Suicide prevention measures should focus on promoting resilience and strengthening supports for adolescents and families to build protective factors around South Carolina children and families.

Accidental

Deaths ruled as accidental are those caused by unintentional injuries as the result of accidents such as drownings, motor vehicle accidents, house fires, accidental poisonings, accidental weapons discharge, falls, and other accidental injuries resulting in death. Of note, the SCFAC does not review an exhaustive list of motor vehicle fatalities, reviewing only those occurring on private

Deaths occurring from 2018-2020	
Cases Assigned	573
Cases Completed:	411
Accidental:	153
Percent of Completed Cases:	37.2%

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property or when involving a pedestrian fatality. All motor vehicle traffic deaths are investigated by the South Carolina Department of Public Safety (SCDPS).

Infant deaths as a result of unsafe sleep are often classified as either accidental or undetermined manner of death. The majority of the cases reviewed by the committee in which the death was related to the sleeping environment were most often classified as an undetermined manner of

¹⁸ "We Can All Prevent Suicide," Lifeline, accessed November 29, 2021, https://suicidepreventionlifeline.org/how-we-can-all-prevent-suicide/.

death. Due to this, infant unsafe sleep deaths will be reported in more detail in the Undetermined section of this report (see page 31).

Of the deaths occurring in 2018 through 2020, the committee has completed its review of 411 cases with 153 (37.2%) cases determined with a manner of accidental. Of these 153 cases, 61 (39.9%) were African American, 72 (47.1%) were White, 9 (5.9%) were Hispanic, and 11 (7.2%) were categorized as Other (includes Native Americans, multi-racial, and/or Asian).

by race/ennicity						
Deaths occurring 2018-2020						
	2018	2019	2020	Totals		
African American	32	25	4	61		
Non-Hispanic White	32	30	10	72		
Hispanic	5	4	0	9		
Other (Native Americans, multi-racial, and/or Asian)	6	3	2	11		
Totals	75	62	16	153		

Table 18: SCFAC Completed Cases: Accidents

Analysis by age and sex reveals that 100 (65.4%) of the 153 accidental deaths involved male children, and 53 (34.6%) involved females. Infants had the highest percentage by age category, with 76 of the 153 cases, accounting for 49.7% of all accidental cases reviewed. Ages 1-4 had 47 cases of accidental deaths reviewed (30.7%), ages 5-9 had 12 cases of accidental deaths reviewed (7.8%), ages 10-14 had 7 cases of accidental deaths reviewed (4.6%), and ages 15-17 had 11 cases of accidental deaths reviewed (7.2%).

Table 19: SCFAC Completed Cases: Accidents by age category and sex Deaths occurring 2018-2020								
	2018		2	019	2	020	Totals	
	Male	Female	Male	Female	Male	Female	Male	Female
Infant (less than 1 year of age)	22	14	21	9	4	6	47	29
Ages 1-4	19	9	11	6	2	0	32	15
Ages 5-9	4	2	4	1	0	1	8	4
Ages 10-14	1	0	4	1	1	0	6	1
Ages 15-17	3	1	3	2	1	1	7	4
Totals	49	26	43	19	8	8	100	53

The majority of accidental deaths reviewed by the committee were infant sleep related deaths, which are covered in more detail in the Undetermined section of this report (see page 31). Drowning deaths accounted for the next highest amount of accidental fatalities reviewed, with 36 cases, or 23.5% of accidental deaths reviewed. Following drowning deaths, deaths as a result of choking, strangulation, house fires, and accidental shootings were reviewed by the committee as frequent causes of accidental deaths.

Figure 11: Accidental Deaths, Mechanisms

2018-2020 Fatalities, SCFAC completed cases



Drownings: The committee reviewed 36 drowning deaths. These deaths account for 8.8% of total deaths reviewed, and for 23.5% of accidental deaths reviewed. Younger children, particularly ages 0-4 are at greatest risk for drowning. Of the 36 reviewed drowning deaths, 22 (61.1%) involved children younger than 5 years old.

Analysis of drowning cases revealed significantly more cases involved male children. Male children accounted for 26 of the 36 drowning cases reviewed (72.2%).

Of the 36 drowning cases reviewed, 25 (69.4%) children were White, 9 (25%) were African American, and 2 (5.6%) were categorized as Other (Native Americans, multi-racial, and/or Asian). The majority of drowning cases reviewed involved non-Hispanic children, with 32 (88.9%) of the 36 cases being non-Hispanic.

Figure 12: Drowning Deaths

2018-2020 Fatalities, SCFAC completed cases



The drowning cases reviewed occurred most frequently at private pools. Pool drownings, including private and public pool locations, accounted for 19 (52.8%) of the 36 cases reviewed. Very few of these cases occurred at public pools. Many of the drowning cases reviewed involved a child gaining access to pools that did not have a barrier in place (i.e., no fence or gate around the pool), or in which the barrier to the water was not fully secured (i.e., unlocked doors, open gates, not fully fenced). Many of these cases involved children who were inside a home and who were able to venture outside and gain access to a pool, unknowing to the supervisor.

Open water drownings, such as in lakes or rivers, accounted for 13 (36.1%) of the 36 cases reviewed. Many of the open water drownings reviewed occurred while the child was playing in

or around the water, who either entered the water unknowing to the supervisor, or who was swimming and ventured into water that was either deeper or swifter moving than the child's swimming ability could handle. These cases include those in which children were boating, or those who were jumping into deep water while not wearing a life jacket.

The main factors identified across the drowning cases reviewed include:

- Lack of swimming ability
- Lack of adequate barriers to prevent unsupervised water access
- Lack of close supervision while around water, including supervision while in the bath
- Failure to wear life jackets

Unintentional firearm deaths: The committee reviewed a total of 102 cases that were the result of a firearm death. These 102 cases include suicides, intentional homicides, and accidental shootings.



Figure 13: Firearm Deaths by Intent

The committee reviewed 13 cases in which a child was unintentionally shot. These types of cases involve hunting accidents, target shooting, and those in which a child accidentally shoots themselves or another child. There is variation in the manner of death listed on the death certificates for these types of incidents with some documented as Accident and others as Homicide on the death certificate. Of the 13 unintentional firearm deaths, 7 were ruled as Accidental on the child's death certificate. The data included in this section is intended to inform of the factors related to the incident being unintentional, not necessarily the determination listed on the child's death certificate as Accident.

Of the 13 unintentional firearm deaths reviewed, 5 were self-inflicted, 5 were children who were shot by other children, and 3 were hunting or target shooting accidents. The 3 hunting/target shooting incidents were firearms shot by adults.

Of the unintentional firearm deaths reviewed, most occurred in ages 10-14 years old with 5 of the 13 cases, followed by 4 cases amongst ages 1-4 years, 3 cases in ages 5-9 years, and 1 case of

a child older than 15. In particular to cases in which children obtain access to a gun and accidentally shot themselves, or another child, there is often a misunderstanding of a child's ability to gain access to and fire a gun, their ability to distinguish between real and toy guns, and their ability to make good judgements regarding gun handling and safety. Promoting the safe storage of firearms in the home to reduce their availability and accessibility is an important step in preventing unintentional firearm deaths among children.

Choking and strangulation: The committee reviewed 9 cases in which the child died from accidental choking or strangulation. These cases involved children choking on foreign objects such as coins and balloons, as well as on food.

Many of these deaths occurred in young children, ages 1-3 years of age. Children of this age tend to put objects in their mouths, and it is important for caregivers to monitor for potential choking hazards in the child's environment. Latex balloons are a common choking hazard, occurring when children accidentally inhale the balloon, often while they are attempting to inflate it. Other choking hazards include ingesting pieces of food too large for the child or eating while walking, running, playing, or lying down.

Other cases included in this category include strangulations in which a child strangles when becoming entangled in objects such as stroller straps, blind cords, or car seat straps. Most of these deaths occurred when a child was left unattended in an area where a strangulation hazard was present, such as left in a stroller or car seat unattended. Other accidental strangulations can occur when a child becomes entangled in blind cords, electrical cords, or other ligatures found in many homes. Prevention measures for these types of deaths involve close supervision while eating, cutting up foods to appropriately sized pieces, not leaving a child unattended in a stroller, car seat, or other device with straps, and eliminating potential strangulation hazards, such as replacing corded blinds with cordless options.

Undetermined (including natural classifications)

Deaths in which the manner is classified as Undetermined includes cases that have been investigated, but a manner of death could not be determined based on the available information surrounding the case. It may be that multiple causes of death are possible, but none can be conclusively proven (e.g., Sudden Unexpected Infant Death (SUID) vs. overlay vs. intentional suffocation). Many infant unsafe sleep deaths are categorized as Undetermined due to this.

SCFAC Case Reviews – Undetermined Deaths occurring from 2018-2020		
Cases Assigned 573		
Cases Completed:	411	
Undetermined:	95	
Percent of Completed Cases:	23.1%	

Other cases classified as Undetermined include those in older children in which an injury has caused the death, but the intent of the injury cannot be conclusively proven (accidental vs. suicide vs. homicide).

The committee only reviews preventable deaths. Deaths as a result of medical conditions as the only cause of death or that are determined to be of another natural cause that is not preventable are not reviewed by the committee. There are cases in which the official documenting the death certificate will classify some preventable deaths with a Natural manner of death. Deaths that are

preventable (e.g., infant deaths in an unsafe sleeping environment) and that are documented on the child's death certificate as natural are included in the Undetermined case reviews for the committee.

Of the deaths occurring in 2018 through 2020, the committee has completed its review of 411 cases with 95 (23.1%) cases determined with a manner of undetermined, including those documented on the child's death certificate as natural. Of these 95 cases, 45 (47.4%) were African American, 33 (34.7%) were White, 8 (8.4%) were Hispanic, and 9 (9.5%) were categorized as Other (includes Native Americans, Biracial, and/or Asian).

Table 20: SCFAC Completed Cases: Undetermined by race/ethnicity Deaths occurring 2018-2020					
2018 2019 2020 Tota					
African American	21	21	3	45	
Non-Hispanic White	20	13	0	33	
Hispanic	2	6	0	8	
Other (Native Americans, multi-racial, and/or Asian)		6	0	9	
Totals	46	46	3	95	

The majority of these cases were deaths occurring in infants less than one year of age. Of these cases, 82 of the 95 Undetermined or preventable natural deaths reviewed occurred in infants (86.3%). The next highest age category is ages 1 - 4, totaling 8 of the 95 cases reviewed (8.4%).

Deains occurring 2018-2020								
	2	018	2019		2020		Totals	
	Male	Female	Male	Female	Male	Female	Male	Female
Infant (less than	24	17	22	16	1	2	47	35
1 year of age)								
Ages 1-4	2	1	3	2	0	0	5	3
Ages 5-9	0	0	0	0	0	0	0	0
Ages 10-14	0	1	0	0	0	0	0	1
Ages 15-17	0	1	2	1	0	0	2	2
Totals	26	20	27	19	1	2	54	41

Table 21: SCFAC Completed Cases: Undetermined by age category and sex

Infant Sleep-Related Deaths: The committee reviews a significant number of deaths of infants while sleeping. Sudden unexpected infant deaths (SUIDs) while sleeping may be diagnosed as sudden infant death syndrome (SIDS), while others are diagnosed as overlay, accidental suffocation, positional asphyxia, or undetermined. SIDS is a medical cause of death and is a subset of SUID and is often used when the death of an infant occurs that remains unexplained after a complete investigation, autopsy, and review of the child's medical history. Of the 411 total deaths reviewed by the committee, 152 were related to the infant sleeping environment (37.0% of cases reviewed). Of these 152 cases, 76 were African American (50.0%),

59 were White (38.8%), and 17 (11.2%) were categorized as Other (includes Native Americans, Biracial, and/or Asian).

Analysis of infant sleep deaths by age in months reveals the majority of the sleep related deaths reviewed by the committee occurred in infants less than 6 months. Of the 152 infant sleep deaths reviewed, 126 (82.9%) were infants less than 6 months of age. As infants age, the incidence of sleep related deaths declines, although sleep-related causes of infant death can occur until baby's first birthday.¹⁹

Of the 152 infant sleep deaths reviewed, 89 of the cases were male infants (58.6%). Throughout the world, the prevalence of SIDS and SUID deaths in male infants has consistently been higher than in female infants, with male infants accounting for approximately 60% of SIDS victims.²⁰ There have been many studies conducted to better understand why the incidence of SIDS is increased in male infants, though it appears there is not a single cause as agreed upon in the medical and research community that puts male infants at higher risk. There may be a multitude of factors involved, and/or information not yet known to researchers resulting in the higher incidence of male SIDS deaths.



Figure 14: Infant Sleep Related Deaths

2018-2020 fatalities, SCFAC completed cases

¹⁹ "SIDS by Baby's Age," SIDS by Baby's Age § (n.d.), https://www.dhhs.nh.gov/dphs/bchs/mch/documents/sids-byage-infographic.pdf.

²⁰ Heidi L. Richardson, Adrian M. Walker, and Rosemary S.C. Horne, "Sleeping like a Baby—Does Gender Influence Infant Arousability?," *Sleep* 33, no. 8 (2010): pp. 1055-1060, https://doi.org/10.1093/sleep/33.8.1055.

There are many risk factors attributed to infant sleep related deaths. The committee has identified bed sharing, unsafe sleeping location (i.e. not in a crib or bassinet) and infant sleeping position as three predominant factors in the infant sleep related deaths reviewed.



Figure 15: Infant Sleep Related Deaths, Sleep Factors

2018-2020 fatalities, SCFAC completed cases

Of the 152 infant sleep related deaths reviewed, 93 (61.2%) reported bed-sharing at the time of the death. These cases include bed-sharing with adults and/or other children. Bed-sharing on its own is considered a risk factor of infant sleep deaths, with the incidence of death occurring when the adult bed sharing with the child is impaired on drugs and/or alcohol. Of the 93 bed-sharing deaths reviewed, 27 (29.0%) indicated the supervisor was impaired by drugs and/or alcohol at the time of the incident.

Table 22: Bed-sharing Deaths
Caregiver Impairment Summary
Deaths occurring 2018 2020

	Frequency	Percent
Total Infant Sleep Deaths	152	NA
Cosleeping	93	61.2%
Caregiver impaired	27	29.0%
Caregiver impairment unknown	15	16.1%
Caregiver not impaired	51	54.8%

An analysis of the bed-sharing cases in which the caregiver was impaired at the time of the death revealed that in many of the cases reviewed there was polysubstance impairment. Marijuana and alcohol were most frequently noted in the cases reviewed, with 12 cases involving marijuana impairment (12.9%) and 11 cases involving alcohol impairment (11.8%). The majority of caregivers who used marijuana or alcohol at the time of the incident were found to be impaired on multiple substances. Prescription drugs were most frequently the source of sole substance impairment, with 7 cases revealing caregiver impairment on prescription drugs alone (7.5%).

Substance	Frequency	Percent (of 93 bed-sharing cases)
Marijuana Total	12	12.9%
THC Alone	4	4.3%
THC with other substance(s)	8	8.6%
Prescription Drugs Total	9	9.7%
Prescription drugs alone	7	7.5%
Prescription drugs with other substance(s)	2	2.2%
Alcohol Total	11	11.8%
Alcohol Alone	6	6.5%
Alcohol with other substance(s)	5	5.4%
Other substances	4	4.3%

Table 23: Bed-sharing DeathsCaregiver Impairment by Substance

The only sleeping position considered safe for infants is on the back. When an infant is placed in another position for sleep, the occurrence of sleep related fatalities increases. Of the 152 infant sleep related deaths, 41 (27.0%) were cases in which the infant was in the safe sleep position, on their back. The remainder of the cases reviewed were of infants placed on their stomach, side, or cases in which the positioning is unknown or unavailable at the time of the committee review.

Safe sleep locations include cribs and/or bassinets, free from any bedding such as blankets, pillows, stuffed animals, cushions, etc. Of the 152 infant sleep related deaths reviewed, 121 (79.6%) were cases in which the infant was sleeping in a location other than a crib or bassinet. The majority of these cases (83 of 121, 68.6%) were infants sleeping in an adult bed. The next most frequently reviewed unsafe sleep location were cases in which the infant was sleeping on a couch (20 cases). The committee reviewed many other cases involving unsafe sleep locations including car seats, air mattresses, bouncy chairs, swings, and rockers.

While 30 of the 152 (19.7%) of the infant sleep related deaths reviewed occurred in a safe sleep location of a crib or bassinet, it is important to acknowledge that with these cases, many had other unsafe sleep factors of bedding. Infants should always be placed alone, flat on their backs, and in a crib or bassinet to sleep safely. Of the 30 infant deaths that occurred in cribs or bassinets, 23 (76.7%) had pillows, blankets, cushions, and other types of bedding present in the child's crib or bassinet.

IV. SCFAC Recommendations

There are many opportunities for initiatives and prevention surrounding preventable childhood fatalities. The SCFAC has grouped recommendations into two principle themes of 1.) Investigation Improvements and 2.) Prevention Efforts. There are multiple recommendations discussed under each.

1.) Investigation Improvements

Promoting the standardization and consistency of investigation processes surrounding child fatalities promotes equity, cohesion, and the avoidance of duplication and oversights during investigation, ultimately leading the improved processes and outcomes. The committee has developed recommendations focused on standardizing child death investigations and investigative practices.

Recommendation 1a: Establish and implement a child death investigation protocol.

There is currently established statutory requirements for child death investigations for SLED, coroners, and SCDSS. These statutes do not include a universal protocol for how investigative partners are to investigate child deaths in a uniform manner. The committee recommends establishing a child death investigation protocol to support the statutory requirements of these investigative partners. A child death investigation protocol will improve consistency, decrease duplication of work, and promote more thorough investigations. Creating a multidisciplinary protocol will help all investigative partners to achieve the same goal within each agency's statutory requirements.

Recommendation 1b: Fund statutory requirements supporting child death investigation and response.

The committee recommends funding all statutes related to child death investigation and response. This includes funding legislation for coroner's response to child deaths, including holding local child death reviews and compiling data gathered from child death reviews to be reported to the SCFAC. These efforts are designed to promote comprehensive and consistent notification of child deaths and to promote a multidisciplinary approach to child death reviews and data reporting.

Recommendation 1c: Conduct toxicological testing on all child death cases.

In an effort to improve child death investigations, the committee recommends that toxicology testing be conducted on all children who die from preventable deaths. When toxicology results are not available, there is a missed opportunity to fully understand the circumstances surrounding a child's death. The intent of this recommendation is to help identify contributing factors related to toxicological findings in a consistent and comprehensive manner.

2.) Prevention Focused Recommendations Recommendation 2a: Continued focus on leading causes of preventable child deaths.

There are many initiatives across South Carolina focused on preventing child deaths. Programs in state agencies, non-profits, and other organizations are happening across the state. The

committee recommends a continued focus on prevention efforts, particularly surrounding the leading causes of preventable childhood deaths. Below are some highlights of recent child fatality prevention efforts that the committee recommends be continued and remain a focus in the future.

Infant Safe Sleep: In October 2021, Governor Henry McMaster proclaimed October as Safe Sleep Awareness Month and several agencies endorsed the first-ever Safe Sleep Awareness poster. Child Fatality Advisory Committee members and other state leaders and advocates including the South Carolina Law Enforcement Division, Coroners' Association, Department of Health and Environmental Control, Department of Health and Human Services, Department of Alcohol and Other Drug Abuse Services, Upstate AHEC, Department of Social Services and Department of Children's Advocacy participated in South Carolina's first Safe Sleep Summit. The purpose of this South Carolina Safe Sleep Summit in October 2021 was to coordinate and consolidate information and resources, so that we can ensure we have the greatest enduring impact and the best outcomes.

A SC Safe Sleep Pledge was also created as a means for parents, caregivers, agencies and organizations to come together to bring awareness to infant sleep-related injuries and deaths and promote a unified statewide effort to eliminate preventable sleep-related injuries and deaths. The data and advocacy from the Child Fatality Advisory Committee were essential to providing information and awareness regarding sleep-related infant deaths in our state.

Student ID Card Suicide Prevention Act: On July 22, 2021, Governor McMaster signed the Student ID Card Suicide Prevention Act which requires schools to provide the number of the National Suicide Prevention Lifeline on student ID cards. This legislation (S. 231) was sponsored by Senator Katrina Shealy and was supported by many agencies and organizations including the Department of Children's Advocacy, Department of Mental Health Office of Suicide Prevention (DMH OSP), National Alliance for Mental Illness (NAMI), and Mental Health America. Many of the advocates and supporters for this legislation are active members of the Child Fatality Advisory Committee.

SCFAC Sub-committees on leading preventable deaths: During 2021 the committee made a commitment to establish two sub-committees focused on suicide and infant sleep related deaths. The purpose of these sub-committees is to focus more specifically on the factors contributing to these types of deaths and to better guide prevention efforts. Future goals include expanding the number of sub-committees to address all leading causes of preventable deaths in South Carolina.

Recommendation 2b: Accessible evidence-based prevention services.

Prevention efforts in South Carolina have made great strides with the enactment of the South Carolina Child Abuse Response Protocol (S.229), signed by Governor Henry McMaster on September 9, 2021. The act establishes a statewide protocol to effectively and efficiently respond to child abuse cases. In addition, the implementation of the Family First Prevention Services Act

is aimed at improving prevention services with an evidence-based approach designed to maintain family connections and improve overall well-being and permanency.

The enaction of these two acts are steps towards improving prevention and access to services for children and families in South Carolina. The committee recommends focusing initiatives on the removal of barriers to prevention services, so that services are accessible by all. This will likely require additional funding, needs assessments, and prevention planning to identify top priorities and strategies across the state.

Recommendation 2c: Fund Public Service Announcements and Commercials

There is opportunity across the state for targeted prevention measures through the use of public service announcements (PSA) and quick commercials on local media platforms (i.e., local television and radio). The committee recommends funds be provided for use by state agencies to message prevention measures related to accidental shooting, unsafe sleep, and suicide child deaths.