



North Carolina Office of the Chief Medical Examiner

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Office of the Chief Medical Examiner

NC Child Fatality Prevention Team Annual Summary

2021

Report prepared by:

Murphy L. Jones

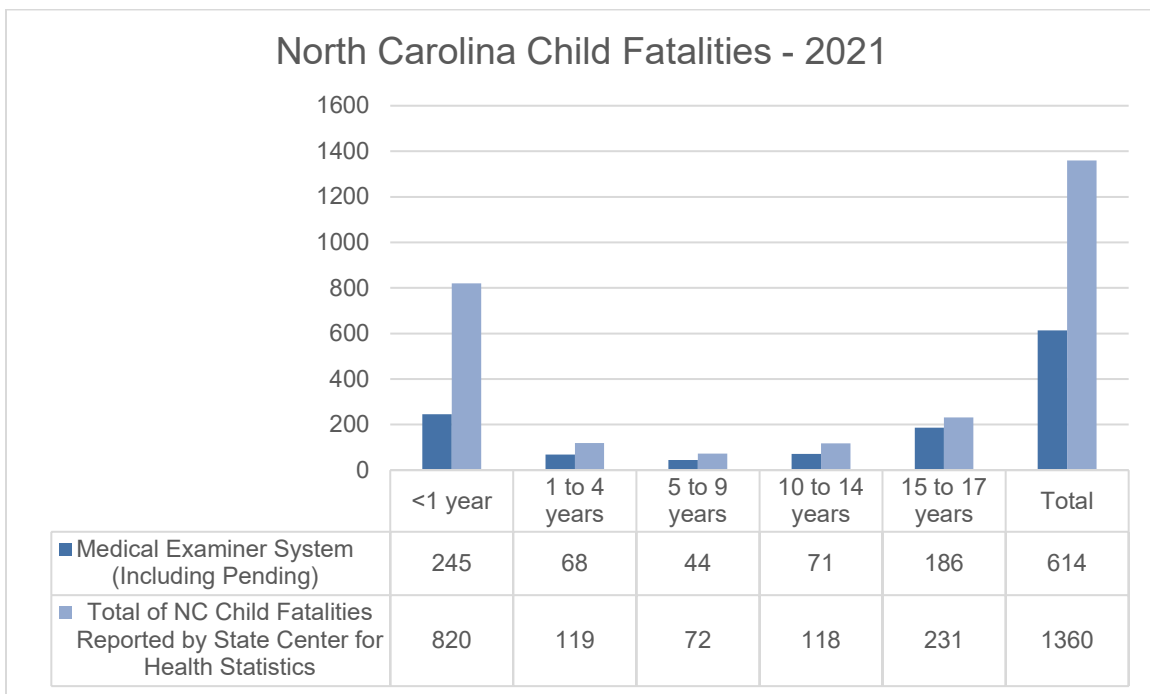
Social and Clinical Research – Data and Information Unit, Child Fatality Review

Updated as of June 27, 2023

TOTAL NUMBER OF DEATHS 2021 Child Deaths in North Carolina Ages 0 through 17 Years

According to N.C. General Statutes § 130A-383, a medical examiner is notified to investigate the circumstances surrounding deaths due to violence, poisoning, accident, suicide, or homicide; occurring suddenly when the deceased had been in apparent good health or when unattended by a physician; or occurring under any suspicious, unusual, or unnatural circumstance.

The North Carolina Medical Examiner system investigated the cause and manner of death for 614 children in 2021. Of these 614 cases, 24 fatalities were children that were non-North Carolina residents. Deaths reviewed under Medical Examiner jurisdiction will be included in the total number of child fatalities within a report produced by the North Carolina State Center for Health Statistics (SCHS). This report publishes the total number of child deaths in North Carolina each year.



Cases investigated by the Medical Examiner system included several natural deaths, as well as accident, homicide, suicide, and deaths for which no cause and/or manner of death could be determined. The Medical Examiner System assigns a means of death for each case which refers to how the death occurred. Means included unknown, motor vehicle, natural, firearm, asphyxia, drowning, blunt, fire, toxicology, other, SIDS, fall/jump, animal, electrocution, exposure, medical treatment, environmental, falling object, and sharp.

2021 Medical Examiner Child Fatalities

The Child Fatality Prevention Team (CFPT) staff at the Chief Medical Examiner’s office reviews all child fatalities investigated by the Medical Examiner System statewide. With a total of 614 cases within medical examiner jurisdiction, excluding pending cases (34), a total of **580** child fatality review cases are represented below. Due to pending cases, numbers are subject to change. It is possible that the small number of cases not included have characteristics that differ from the majority summarized here. This report will be updated as information becomes available.

Of note:

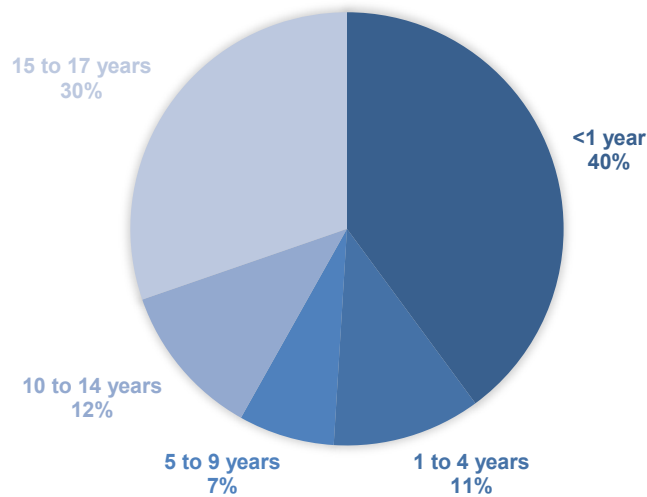
- 24 fatalities occurred in North Carolina to non-North Carolina resident children
- 6 fetal deaths are not represented in the manner totals below including (1) Accident – Other, (3) Natural – Natural, and (2) Undetermined – Unknown and are instead categorized separately in the table

<i>Manner - Means</i>	<i>Fatalities</i>	<i>Manner - Means</i>	<i>Fatalities</i>
ACCIDENT -	209	SUICIDE -	62
Animals	2	Asphyxia	18
Asphyxia	36	Fall/Jump	2
Blunt	20	Firearm	38
Drowning	20	Toxin/Poisoning	4
Exposure/Environmental	2		
Fire/Burns	9		
Firearm	8		
Motor Vehicle	81		
Other	10	UNDETERMINED -	162
Toxin/Poisoning	21	Exposure/Environmental	1
HOMICIDE -	85	Fire/Burns	1
Abuse or Neglect	1	Other	6
Asphyxia	2	Toxin/Poisoning	5
Blunt	11	Unknown	149
Firearm	68		
Other	2		
Sharp	1		
NATURAL -	62		
Natural	58		
SIDS	4		
		FETAL	6
		PENDING	34

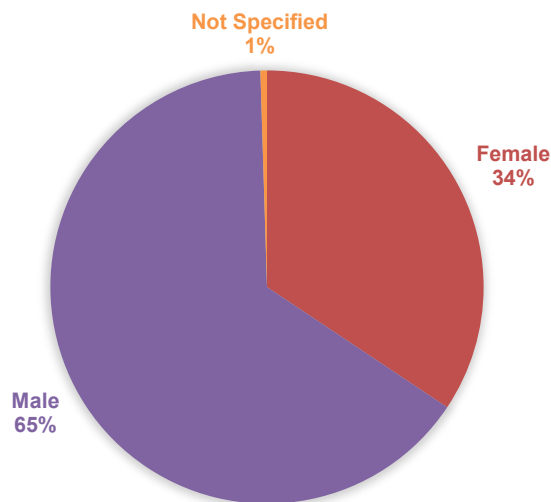
2021 Medical Examiner Child Fatalities Demographics

All demographics represented below exclude fatalities that occurred to non-NC resident children due to an incident outside NC, with a final demise inside North Carolina. Please note, percentages are rounded to the nearest whole number.

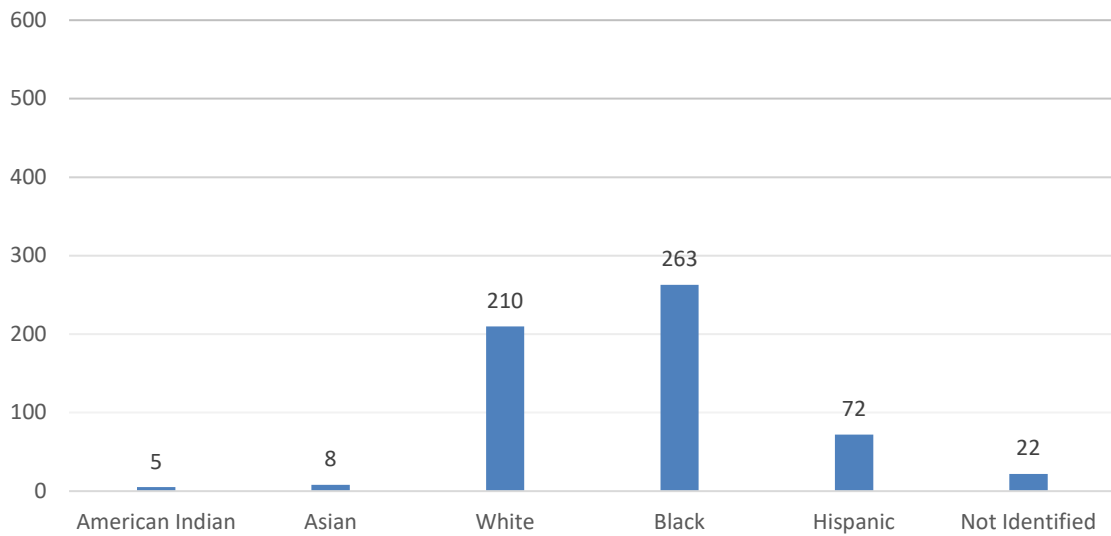
2021 MEDICAL EXAMINER SYSTEM CHILD FATALITIES BY AGE CATEGORY



2021 MEDICAL EXAMINER SYSTEM CHILD FATALITIES BY GENDER



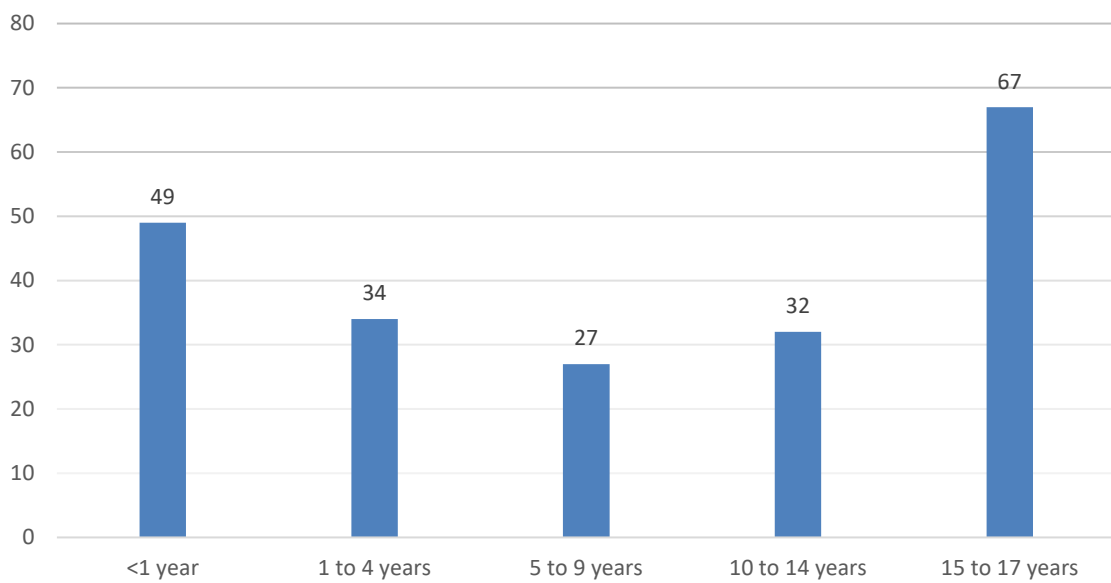
2021 MEDICAL EXAMINER SYSTEM CHILD FATALITIES BY RACE/ETHNICITY



Review of 2021 Medical Examiner Child Fatalities by Manners

ACCIDENT

2021 ACCIDENTAL CHILD FATALITIES BY AGE



Asphyxia

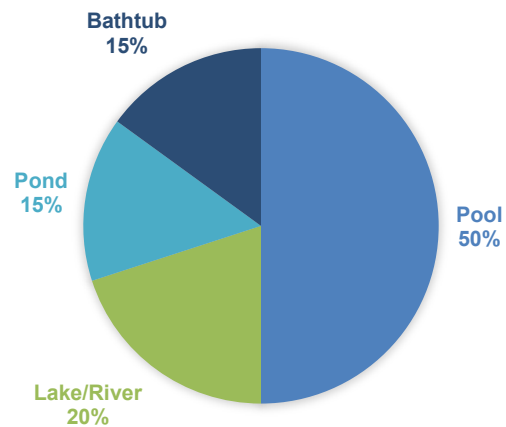
Accidental asphyxiation was the means of death for 36 children in 2021. Infants constituted many of the asphyxiation deaths at 34 of the fatalities being attributed to accidental asphyxiation in a sleep environment either during co-sleeping or by being placed in an unsafe physical sleep environment. Additional information on infants in unsafe sleep environments at the time of death can be found in the 2021 Spotlight on Infant Death Report on the OCME website under 'N.C. Child Fatality Prevention Team' (<https://www.ocme.dhhs.nc.gov/nccfpp/index.shtml>)

Drowning

Accidental drowning resulted in the deaths of 20 children in 2021. In terms of location, 10 drownings occurred in a pool, 4 in a lake/river, 3 in ponds, 3 in a bathtub.

AGE CATEGORY	NUMBER OF CHILDREN
<1 YEAR	1
1-4 YEARS	8
5-9 YEARS	3
10-14 YEARS	2
15-17 YEARS	6

2021 ACCIDENTAL DROWNINGS

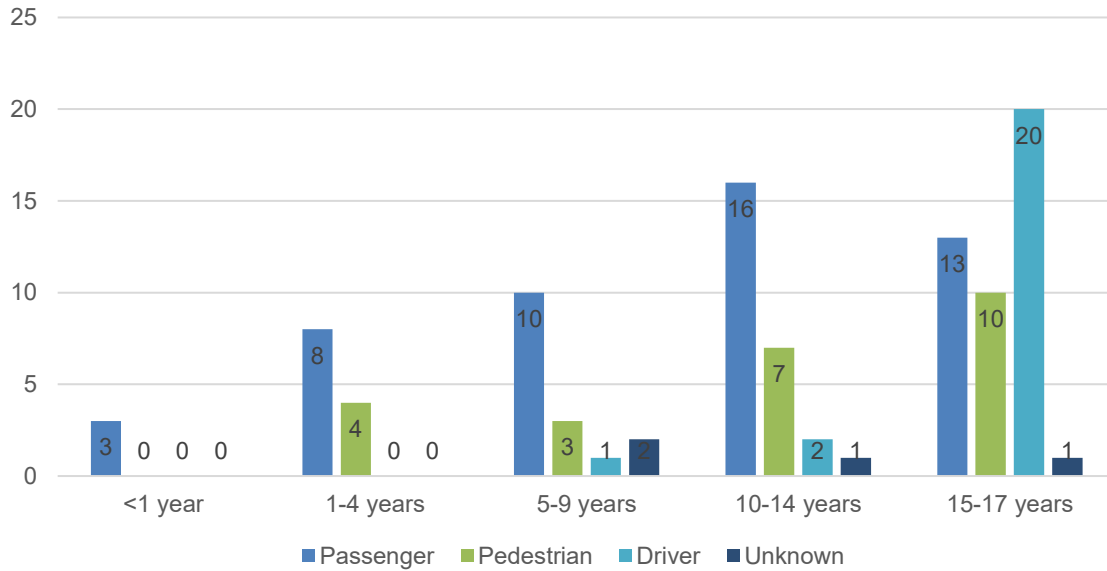


Vehicle-related

In 2021, there were 101 accident/motor vehicle-related child deaths. Among the total number of teenage drivers, 15 were 17 years old, 5 were 16 years old, 2 were 14 years old or younger. Vehicles driven include the following: ATVs, golf carts, passenger cars, pickup trucks, SUVs, and a moped. Pedestrian situations include bicycles, skateboards, walking, and standing.

Of all the children involved in vehicle-related accidents, 29 children were either not wearing seat belts or were improperly restrained at the time of the motor vehicle accident. Some vehicle types do not have restraint options, such as an ATV. Of note, on scene of a vehicle accident, it is sometimes unable to be determined if the decedent was properly restrained at the time of the incident. Rarely, the position of the occupant in the vehicle is unable to be determined which is represented as 'Unknown' in the chart below.

2021 Accident - Motor Vehicle-related Deaths by Age



Toxins

There were 21 accidental deaths from toxic substances (i.e., poisoning). Fifteen of the deaths were children 15-17 years old, 1 child was age 10 - 14 years, 3 children were 1 - 4 years of age, and 2 children were under 1 year of age. The synthetic opioid - fentanyl - was found in 19 of the 21 toxin related fatalities.

Fire

There were 9 deaths from fires/burns/carbon monoxide. Fires/burns/carbon monoxide contributing to these deaths were 7 separate incidences, with some occurrences claiming multiple lives. Among these 7 incidences, 8 deaths occurred in a residence setting and 1 death in a vehicle. Sources of the residence fires ranged from appliances, kerosene heaters and unknown sources.

FIRE-RELATED CHILD FATALITIES, 2021

AGE CATEGORY OF CHILDREN	Number of Children
<1 YEAR	0
1-4 YEARS	3
5-9 YEARS	4
10-14 YEARS	0
15-17 YEARS	9

Firearms

There were 8 deaths from accidental firearm injuries. Three children were ages 1 to 4 years, 1 was age 5 to 9 years, 1 was age 10 to 14, and 2 were ages 15 to 17 years. In 7 of the 8 cases, the decedent found the firearm where it was stored or accessible to the child; in 1 of the 8 cases, someone else was handling a firearm (cleaning/clearing/playing, etc.) when it fired and hit the decedent.

Remaining means with an accidental manner, totaling 12 deaths, include the following:

- 2 exposure means of death
- 10 other—likely asphyxia related means of death

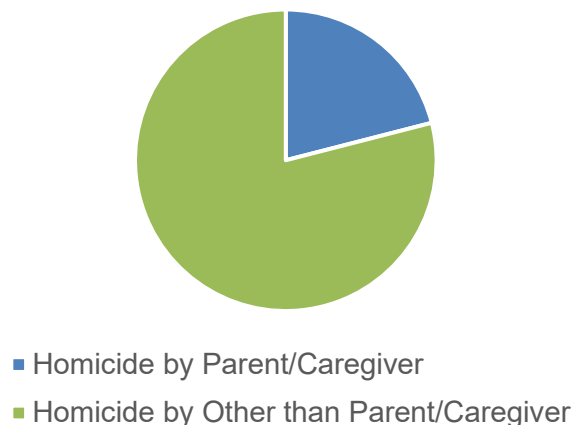
HOMICIDES

There were 85 children who died at the hands of another in 2021.

The CFPT staff designates subcategories to child homicides: homicides that occur at the hands of a parent or caregiver and homicides by other. These subcategories assist in identifying clear trends among the ages/manners.

Homicide by Parent or Caregiver is a subset of homicides defined as a death that is the direct result of the action(s) of the person(s) responsible for the child's well-being at the time of the death. This classification is assigned by the NC Child Fatality Prevention Team based on the injuries and circumstances of the death.

2021 Child Fatality Homicide - Subcategories



Homicide by Parent or Caregiver

Homicide by Parent or Caretaker deaths accounted for 18 of the 85 child homicides in 2021. Infants, children under 1 year of age, accounted for 4 deaths within this subcategory. The remaining children were ages 1-17 years:

- 10 deaths among ages 1 to 4 years
- 2 deaths among ages 5 to 9 years
- 0 death among ages 10-14 years
- 2 deaths among ages 15 to 17 years

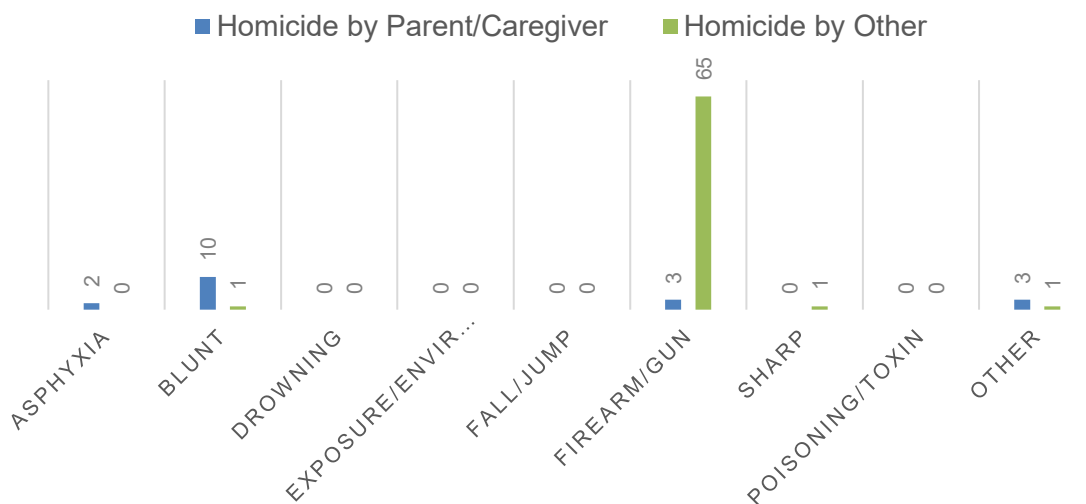
Regarding means, blunt force trauma was the assigned means for 11 deaths, 68 deaths occurred from use of a firearm, 1 with a means of other and the following accounted for 5 deaths each: asphyxia, exposure, and toxin.

Homicide by Other

Other homicides, the other subcategory in which the parent or caregiver was not a suspect or perpetrator, comprised 70 of the 85 total 2021 child homicides that were finalized cases at the time of this report. Teenagers ages 15 to 17 years accounted for nearly 60% of the 85 child homicides with a total of 51 deaths. Remaining cases by age category:

- Under one year of age accounted for 4 deaths
- Ages 5 to 9 years accounted for 7 deaths
- Ages 10 to 14 years accounted for 11 deaths

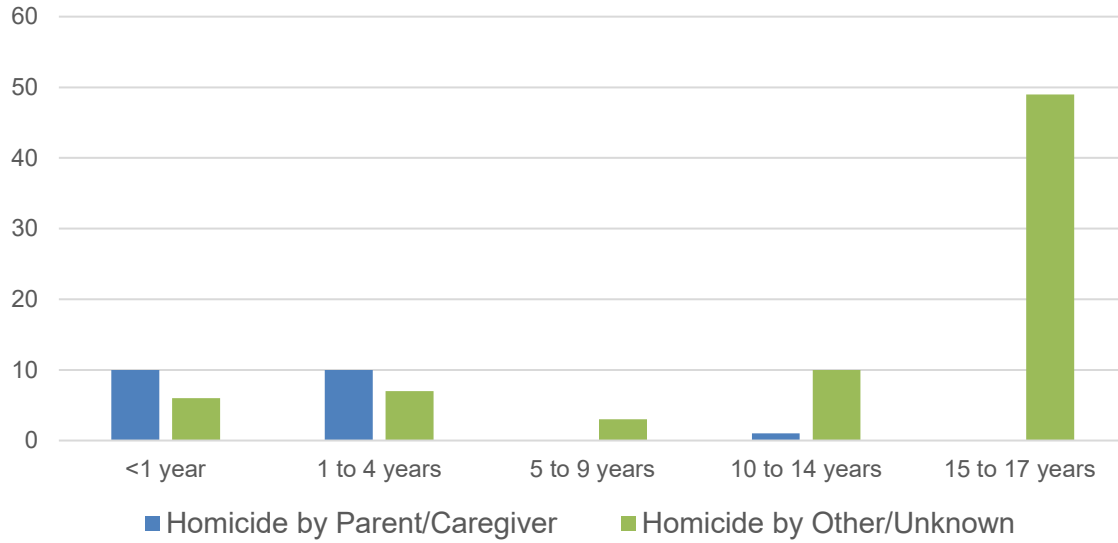
2021 CHILD FATALITY HOMICIDES BY MEANS OF DEATH



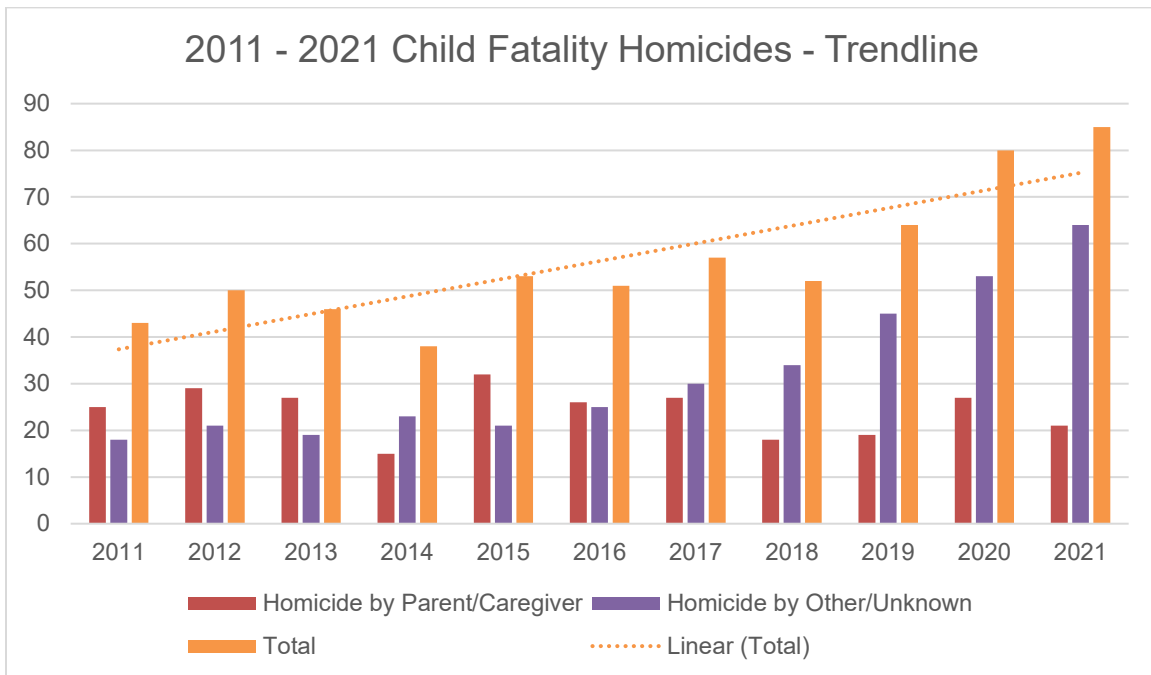
Of all the homicides, regardless of perpetrator, race and ethnicity of decedents break down as follows: Black non-Hispanic children comprised many of the homicides at 57;

12 deaths were of White non-Hispanic children; 15 children identified as Hispanic; 0 deaths of children Asian decent and 16 Other/Unknown.

2021 Child Fatality Homicide by Age and Subcategory



2011 - 2021 Child Fatality Homicides - Trendline

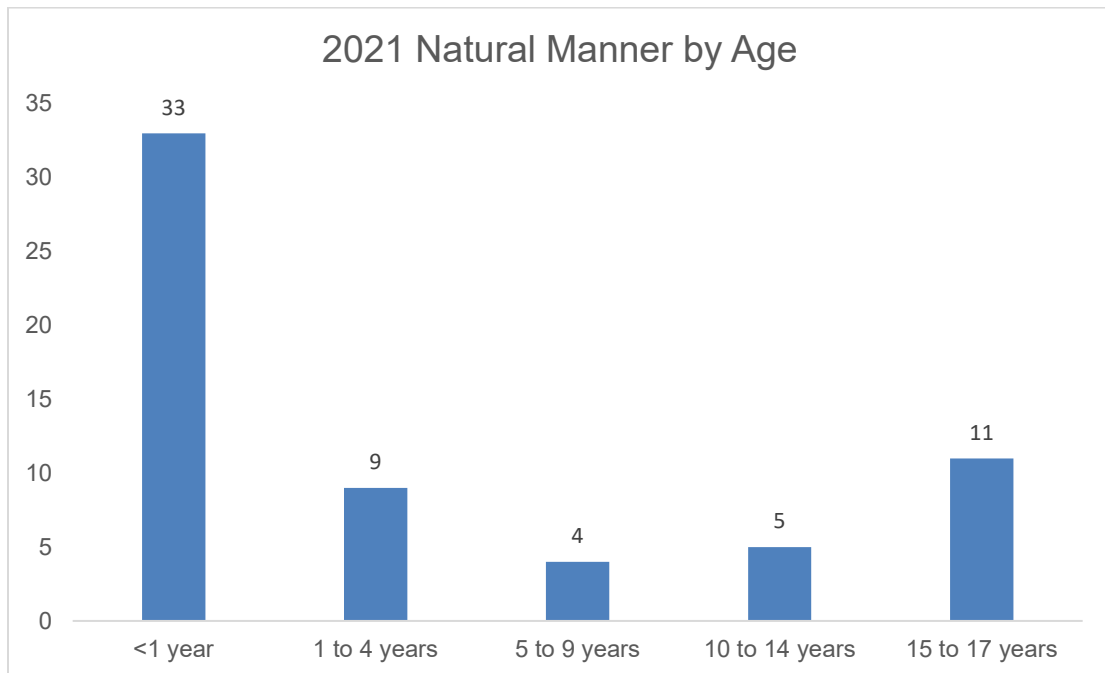


NATURAL

62 deaths were determined to be natural in manner. Of these, 4 deaths were given a classification of Sudden Infant Death Syndrome (SIDS), and 58 deaths were attributed to other natural causes.

Child fatalities previously classified with a Natural (SIDS) have transitioned to utilize the Undetermined manner and means of death if the circumstances include potential unsafe sleep factors. This transition from SIDS to Undetermined began around 2012. Since then, the deaths determined to be Natural SIDS classifications have continued to decrease, however, deaths in the Undetermined manner have greatly increased.

Means of death with a natural manner in 2021 included asthma, congenital health defect/disease, complications of prematurity, non-cardiac congenital disorder, pneumonia, seizure, sepsis, and a variety of complications, infections, diseases, and illnesses.



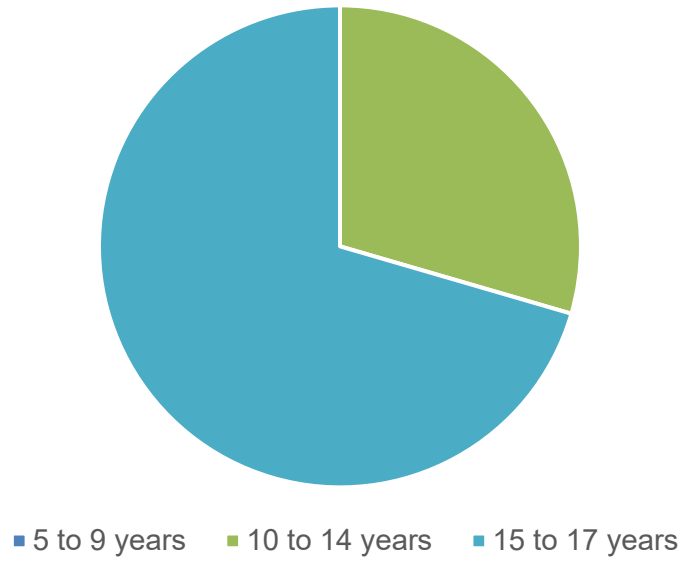
SUICIDE

Suicide was the manner of death of 62 children in 2021. Most of the deaths with suicide as the manner were of children ages 15 to 17 years, accounting for 43 deaths, or approximately 27%. Additionally, there were 19 deaths with a suicide manner of children ages of 5 to 14 years.

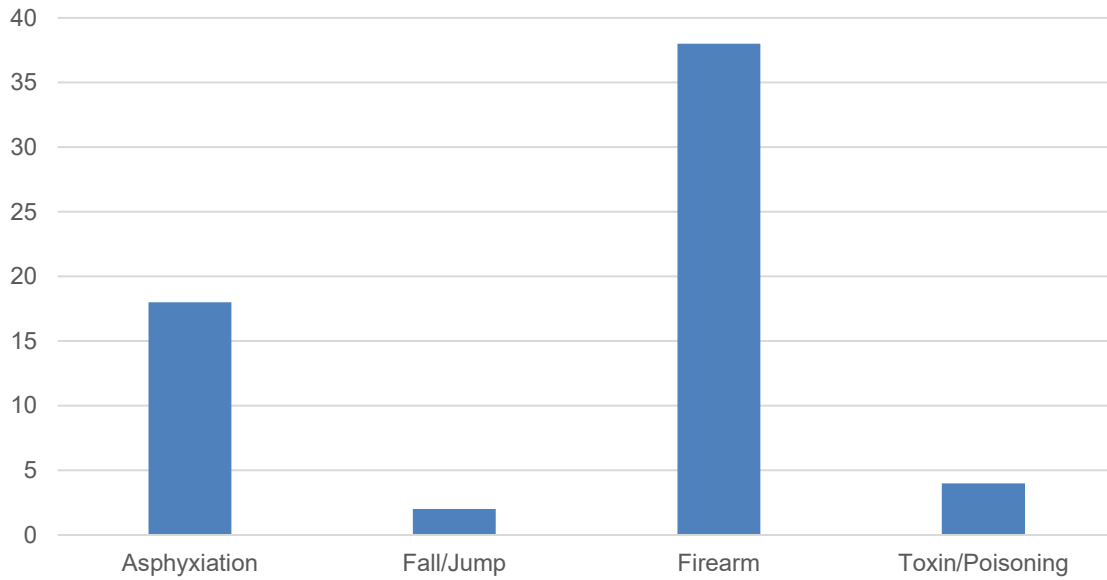
Males accounted for 45 deaths with females accounting for 17 deaths.

The means of death in suicides included 38 deaths from use of a firearm, 18 deaths from an asphyxia event, 4 deaths from toxins, and 2 deaths related to a fall/jump.

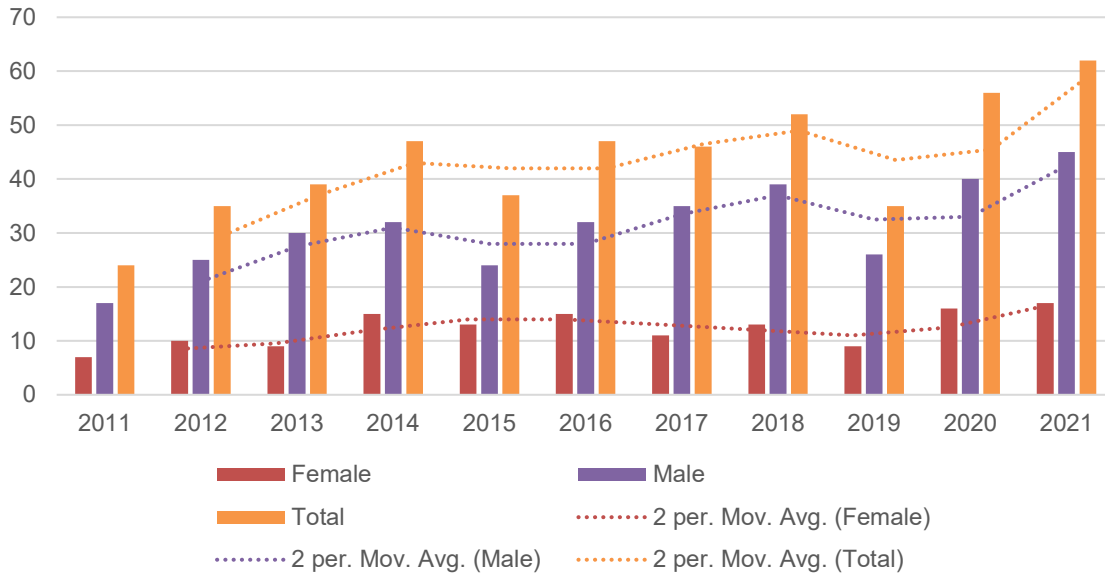
2021 Suicide by Age



2021 Suicide by Means

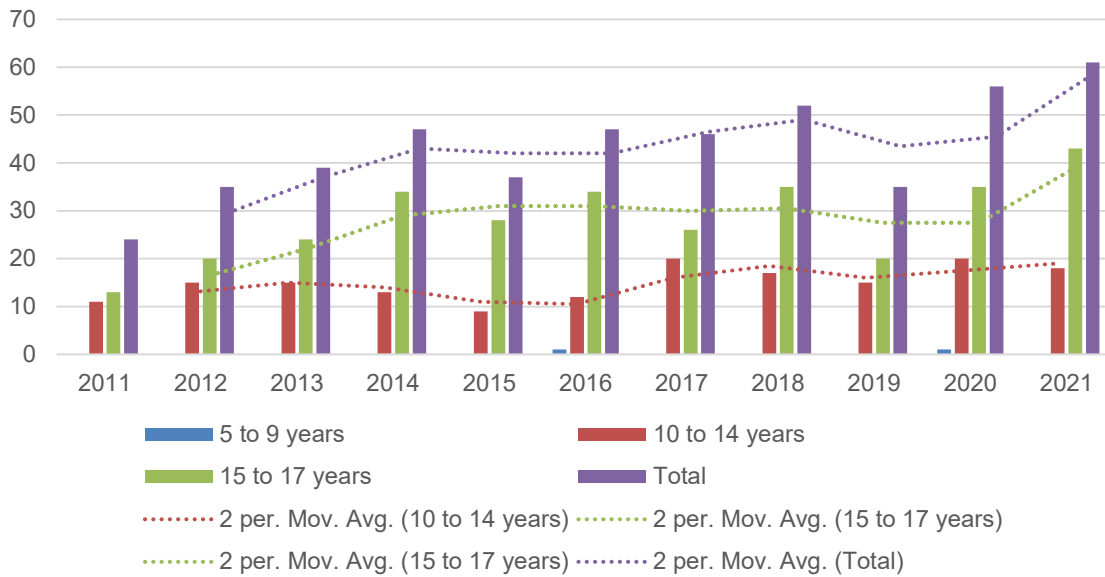


2011 - 2021 Child Fatality Suicides by Sex - Trendline



1

2011 - 2021 Child Fatality Suicides by Age - Trendline



2

¹ 2 Per Moving Average Trendline

² 2 Per Moving Average Trendline

UNDETERMINED

There were 162 deaths that were certified as undetermined manner. Of those, 149 deaths were certified as unknown means, 5 were related to toxin/poisoning, and 8 deaths were related to each of the following: exposure/environmental, fire/burns, and other means of death.

Of the undetermined manner, 144 children were under 1 year of age, 9 children were ages 1-4 years, 2 children were ages 5-9 years, 3 were ages 10-14 years, and 4 ages 15-17 years.

As is the case for most of the infants with an undetermined manner, when a known risky or potentially unsafe sleeping situation is noted, the possibility of asphyxiation due to suffocation cannot be entirely excluded which leads to the certification of an unknown means of death. Additional information on infants in unsafe sleep environments at the time of death can be found in the "2021 Spotlight on Infant Death" report on the OCME website under N.C. Child Fatality Prevention Team.

<https://www.ocme.dhhs.nc.gov/nccfpp/index.shtml>