

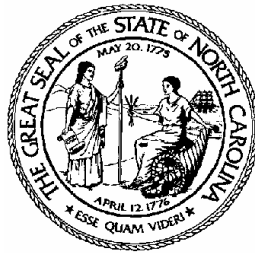


Annual Report

2007

A Summary and Analysis of Child Deaths Investigated by the Office of the Chief Medical Examiner and Reviewed by the Child Fatality Prevention Team

North Carolina Child Fatality Prevention Team
North Carolina Office of the Chief Medical Examiner
2009



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March 2009

Our Purpose

The North Carolina Child Fatality Prevention Team is a dedicated group of individuals that represents various disciplines in the field of child well-being. Among its many charges, the Team reviews child fatalities in order to understand the causes of child deaths, identify trends, and to determine how similar deaths may be prevented. It is then the responsibility of the Team to report the Team findings and recommendations to the Child Fatality Task Force. . Though this report is very statistical and methodical in nature, each and every tragic death is examined with one heartfelt goal, to prevent similar deaths from occurring in the future.

Thank you

We would like to thank.....

..... all of the Team members, for their hard work, dedication and passion in guiding changes to policy and law by taking on the difficult task of reviewing child fatalities and making recommendations.

..... the entire Task Force, especially Tom Vigtalione (chair) and Selena Childs (former Executive Director) for ensuring that child fatalities remain at the forefront of concerns for the state of North Carolina.

.....the staff of the Office of the Chief Medical Examiner for the numerous ways they support the Child Fatality Prevention Team.

....our summer intern, Caroleen Quach, for her hard work and assistance.

..... all of our partners (too numerous to name) who take the time to share information and expertise and make it possible to properly perform these reviews.

..... the State Center for Health Statistics, particularly Matt Avery and Pedro Luna-Orea, for their collaboration and assistance.

.....the Public Affairs Office for their assistance in publishing this report.

.....everyone who will use this information to assist in child fatality prevention efforts in North Carolina.

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2007-2008**

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Introduction

The North Carolina Child Fatality Prevention System was established by legislative decree in 1991. Within this, the North Carolina Child Fatality Task Force was also established in 1991, followed by the North Carolina Child Fatality Prevention Team (State Team) in 1992 and local (county) Child Fatality Protection Teams (CFPTs) in 1995. The purpose of the system is to:

- (1) develop a community-wide approach to the problem of child abuse and neglect;
- (2) understand the causes of childhood deaths;
- (3) identify any gaps or deficiencies that may exist in the delivery of public agency services that are designed to prevent future child abuse, neglect, or deaths to children and their families;
- (4) make and implement recommendations for changes to laws, rules, and policies that will support the safe and healthy development of our children and prevent future child abuse, neglect, and deaths.

The State Team has the important duty of *reviewing all deaths of children under the age of 18 years that occur within North Carolina and that are investigated and certified by the Office of the Chief Medical Examiner (OCME)*. The State Team then presents recommendations to the Task Force for changes to any law, rule, or policy that would promote the safety and well-being of children.

This report is also meant to serve as a resource for public education to encourage the citizens of North Carolina to actively participate in improving the safety and well-being of the children of North Carolina.

Methods

As noted above, the State Team reviews all deaths of children that are investigated by the OCME. Deaths reported to the OCME include: accidents, homicides, suicides, violent deaths, suspicious deaths, and sudden, unexpected deaths (including some natural deaths).

State Team staff examines each case and determines if additional data should be gathered for a thorough review. Additional information that is often requested includes: law enforcement reports, medical records, Child Protective Services records, and other information deemed pertinent to the review.

Notes About the Data

Data Exclusions

Not all deaths of children that are investigated by the OCME are included in the main summary throughout this report. These deaths, and reasons for exclusion, are:

Fetal Deaths

A small number of fetal deaths are reported to the OCME each year due to a number of factors. A fetal death is a death of fetus that never lived outside of the uterus. State statute indicates that the Child Fatality Prevention System review deaths of children from birth through the age of 17 years. Fetal deaths fall outside of state statute and are not in the child death count, but are reported separately at the end of this report.

Non-Residents

When a person dies in North Carolina, a North Carolina death certificate will be issued. This includes individuals who may be here on vacation, visiting or just passing through. In many instances, decedents were injured in neighboring states and were brought to a hospital in North Carolina for treatment but subsequently expired. Since the State Team is charged with the protection of the child residents in North Carolina, non-residents are not included in the overall tally. However, to ensure that these deaths do not get lost in the system, and recognizing that some of these deaths may be due to risks found in North Carolina, the deaths are recorded separately at the end of the report.

Differences Among Data Sets

CFPT Reports & Data

Annual data sets may differ from time to time in CFPT data reports. There are several reasons for the differences. The first is that a death may not be discovered in the same year as it occurred. For instance, if a death occurred in 2005 and was not reported to the OCME until 2007, the death would need to be added to the deaths from 2005. Also, the State Team began identifying additional variables not utilized in previous years. This information may be reflected somewhat differently in newer reports.

State Center for Health Statistics Data

Data released from the State Center for Health Statistics (SCHS) are based on death certificate coding. The SCHS data set includes all deaths of children in North Carolina. As not all deaths are reported to the OCME, the SCHS numbers are higher mainly due to the natural deaths that are reported to the State Center. The data sets for the SCHS also close, meaning that the counts for a particular period of time will not change if the death certificate is revised. The OCME data never close. A cause and manner of death can change if new evidence is found that would deem the change necessary. Also, the CFPT collects additional information on each death and performs an in-depth review of each case. This information allows the CFPT to analyze and classify data differently than the State Center.

Rates

The SCHS releases deaths based on population rates. Rates will not appear in this report because the numbers are generally too small to have significant meaning. As not all child deaths are investigated by the OCME, rates are better reported by the SCHS which handles all birth and death certificates as well as population data. Data for 2007 from the State Center can be found at www.schs.state.nc.us/SCHS/deaths/child/cd2007.html

Reporting

Deaths are reported in whole numbers. Percentages are rounded up to the nearest whole number.

Executive Summary: 2007 Child Fatalities in North Carolina

The State Center for Health Statistics (SCHS) reported 1,649 children between the ages of birth and 17 years who lived and died in North Carolina in 2007 (SCHS data is available at www.schs.state.nc.us/SCHS/deaths/child/cd2007.html). Many of these deaths included children who died from a known natural disease or illness. Those deaths of a suspicious or unexpected nature are required by law to be reported to the Medical Examiner System (MES) for a medicolegal investigation. The Office of the Chief Medical Examiner (OCME) certified the cause and manner of death for **567** of the child resident deaths in 2007. The cases investigated by the MES may include natural deaths, and will include accidental deaths, homicides, suicides and deaths in which no cause of death can be determined. As the MES is not responsible for investigating all deaths, it is important to examine the total number of deaths versus those that are suspicious or unexpected.

Age Group	SCHS Total Deaths	OCME	% Total Deaths Reviewed by CFPT
Infant	1107	223	20%
1-4 years	144	72	50%
5-9 years	106	52	49%
10-14 years	115	79	69%
15-17 years	177	141	80%
Total	1649	567	34%

Table 1. Comparison of all Child Deaths and CFPT Reviews, 2007.

The CFPT reviews only child fatalities that are investigated by the OCME. Therefore, approximately 34% of all child resident deaths in North Carolina were reviewed as they were due to external causes, were suspicious, or were unexpected. When examining the deaths by age group, it is clear that the majority of infants are dying from known illness/disease, and, as children age, their deaths become increasingly likely to be sudden or due to violence. In 2007, 80% of children who died in their late teens died unexpectedly or from external means.

As mentioned above, the CFPT reviews only those cases reported to the OCME and this annual report (unless otherwise specified) includes information only on these deaths.

DEMOGRAPHICS

Age

Infants accounted for the largest number, with 223 (39%) deaths. Teenagers between the ages of 15 and 17 years accounted for the second largest group, with 141 (25%) deaths. Adolescents between the ages of 10 and 14 years followed with 79 (14%) deaths, then the

1 to 4 years age group with 72 (13%) deaths, followed by the 5 to 9 years group which accounted for 52 (9%) deaths.

Race & Ethnicity

The majority of children who died were white, accounting for 300 (53%) deaths. Black children followed with 191 (34%) deaths, Native Americans with 13 (2%) deaths, and Asian children (7) accounting for less than 1% of child fatalities. There were 56 (10%) children who did not have a race identified. In most (52) of these cases, the ethnicity was recorded (Hispanic) but the race was either not documented or was improperly documented, using ethnicity. There were 53 (9%) children identified as Hispanic in ethnicity.

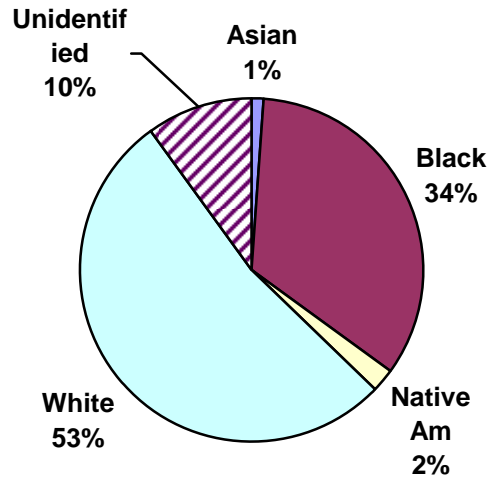


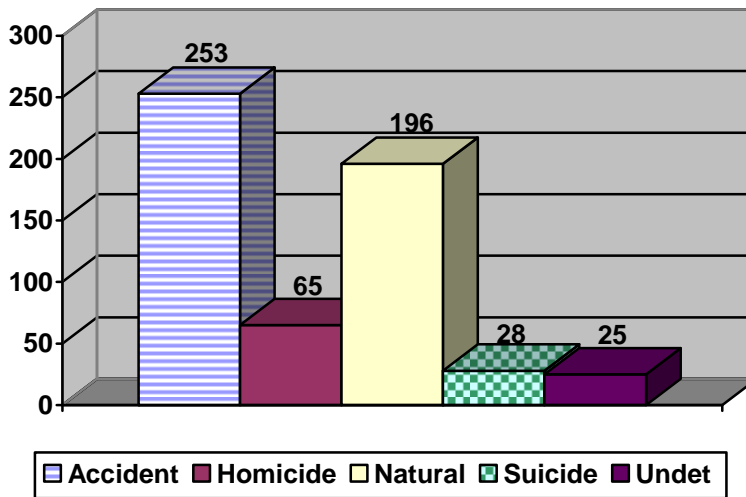
Chart 1. Child Deaths by Race, 2007.

Sex

Male children made up more than half of the deaths, with 366 (65%) of the fatalities. Females accounted for 201 (35%) deaths.

Manner of Death

Manner of death can be considered the determination that an act was intentional or that the person had the knowledge that an act can or will result in death. There are five accepted manners of death: Accident (death was not an intended and/or known consequence of an act); Homicide (death was a result of an intentionally inflicted injury); Suicide (death resulting from intentional self-harm); Natural (identified disease or illness); or Undetermined (intentionality of injury was not clear or no cause could be identified that would lead to identification of manner).



The majority of the deaths were classified as accident (unintentional), accounting for 253 (45%) child deaths. There were 196 (35%) natural deaths, 65 (11%) homicides, 28 (5%) suicides and 24 (4%) deaths in which manner could not be determined.

Chart 2. Child Deaths by Manner, 2007.

When examining manner of death by age, we see that the majority of infant deaths are determined to be natural in manner (65%), followed by accident with 19% of infant deaths.

The top 2 manners of death for the 1 to 4 years age group were accident (60%) and natural (26%). Accidents accounted for 69% of the deaths of the 5 to 9 years group followed by natural with 19% of the deaths. The 10 to 14 years age group deaths were mostly accidents (58%) followed by natural at 18%. Accidents (61%) were also the leading manner for the 15 to 17 years group followed by homicide with 20% of the deaths.

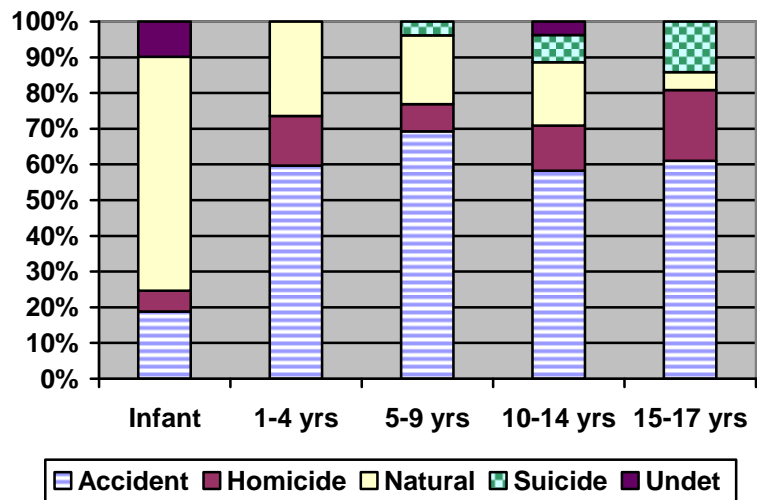


Chart 3. Child Deaths by Age and Manner, 2007.

Manner & Classification

While there are 5 manners of death, there are multiple means or classification categories that are used to better identify how these deaths are occurring. The major categories are outlined below:

Accidental Deaths

There were 253 accidental deaths:

- Vehicle-related injuries accounted for 137 (54%) accidental deaths
- Asphyxiation accounted for 41 (16%) accidental deaths
- Drowning deaths accounted for 26 (10%) accidental deaths
- Fire-related injuries accounted for 22 (9%) accidental deaths in 13 fires
- Toxins accounted for 16 (6%) accidental deaths
- Firearms accounted for 3 (1%) accidental deaths
- Other means accounted for 8 (3%) accidental deaths

Homicide Deaths

There were 65 homicides:

- 25 were homicides by parent or caregiver
- 40 were other homicides

Natural Deaths

There were 196 natural deaths:

- 100 were SIDS deaths
- Other natural causes accounted for 96 deaths

Suicide Deaths

There were 28 suicides:

- Asphyxiation accounted for 50% of the deaths, and firearms for 36% of the deaths

RECOMMENDATIONS

The State CFPT and the local (county) CFPTs examine deaths in an effort to identify trends, systems issues or gaps in policy that can be addressed to prevent similar deaths in the future. The Teams put forth for consideration the following recommendations:

Task Force

The Task Force should study the Driver Education System and identify areas that need improvement that could reduce the number of teen driver deaths.*

Medical Professionals

Professional medical organizations and licensing boards such as the NC Pediatric Society, NC Medical Board, the NC College of Emergency Physicians, the NC Academy of Family Physicians, the NC State Board of Dental Examiners and others should endorse or require training for all professionals on the identification and reporting of child abuse and neglect.

Medical Examiners

The CFPT should send information to the Medical Examiners to educate and assist them in child death investigations.*

Medical Examiners should contact law enforcement in all child deaths to insure a proper medicolegal death investigation occurs.

The CFPT supports the regionalization of the Medical Examiner system, as it may add staff and institute training and standardization that would improve child death investigations.

Safety and Injury Prevention

The Division of Non-Public Instruction should receive adequate funding for additional staff to improve the number home school inspections.

All community agencies (government, private, non-profit, and inter-faith) should assist in reminding North Carolina residents of the basic responsibility to report suspicions of child abuse or neglect.

The Task Force should allocate funding and identify a home organization to develop a campaign for public awareness on the responsibility of all citizens to report suspicions of child abuse or neglect.

Activities Occurring that Address Concerns*

The CFPT formally made this recommendation to the Unintentional Death Committee of the Task Force in 2008 and a subcommittee was formed and is currently studying the issue.

The CFPT staff has created an information packet to be sent to all Medical Examiners to assist in their investigations of child deaths.

ACCIDENTAL DEATHS

Each year, accidental deaths account for the largest number of deaths due to external means of children in North Carolina. In 2007, there were 253 deaths determined to be accidental in nature.

The CFPT utilizes multiple categories to better analyze the circumstances of these deaths. The largest number of deaths occurred as a result of vehicle-related crashes, accounting for 137 deaths. This category also includes ATV crashes, pedestrian deaths and other deaths

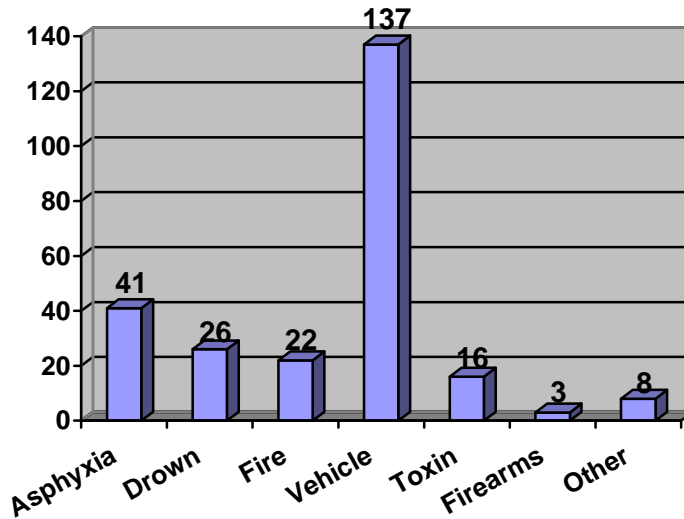


Chart 4. Child Deaths by Means, Accident, 2007.

related to motor vehicles. Crashes comprised 54% of all accidental deaths and 24% of all child fatalities reviewed by the CFPT. Asphyxia was the second leading cause of accidental death, accounting for 41 (16%) deaths. Drowning (26), fire (22), toxin (16), firearms (3) and other means categories (8) were also included in accidental deaths.

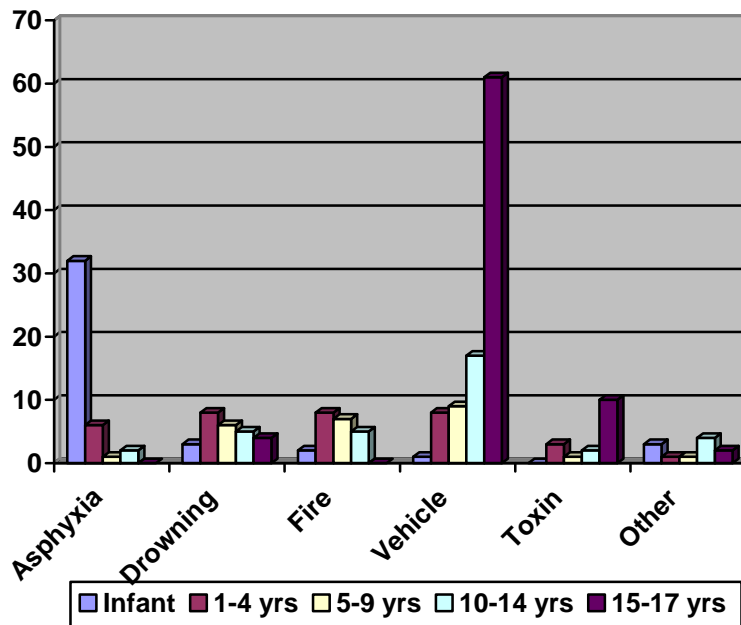


Chart 5. Child Deaths by Means and Age Group, Accidents, 2007.

Variations are seen in both age group and means. Infants make up the overwhelming majority of asphyxiation deaths, while more teens between 15 and 17 die in vehicle related crashes than all of the other age groups combined.

ASPHYXIA

Asphyxiation caused the death of **41** children in 2007. The characteristics of asphyxia differ between infants and older children.. Therefore, they will be examined separately.

Infant Asphyxiation Deaths

Infants comprised 78% (32) of the deaths due to asphyxiation. Demographic information on these deaths included:

- Both black and white infants accounted for 14 deaths each. There was one Asian infant, one Native American infant, and one infant was identified as biracial. One infant did not have an identified race. One infant was of Hispanic ethnicity.
- Of the 32 deaths, 94% of the infants were 6 months of age or younger. The remaining 2 infants were between 7 months and 9 months.
- Male children accounted for 18 (56%) deaths, female infants for 14 deaths.

Mechanism

The majority of infants died as a result of overlying. Overlying (overlay), as defined by the CFPT, occurs when another person prevents an infant’s breathing by lying fully or partially on the child while co-sleeping. In 2007, 17 infants died from overlying. Additional deaths included positional asphyxiation (7 deaths), where a child becomes lodged in a position and breathing is compromised, smothering (4 deaths), aspiration (3 deaths) and mechanical asphyxia (1 death).

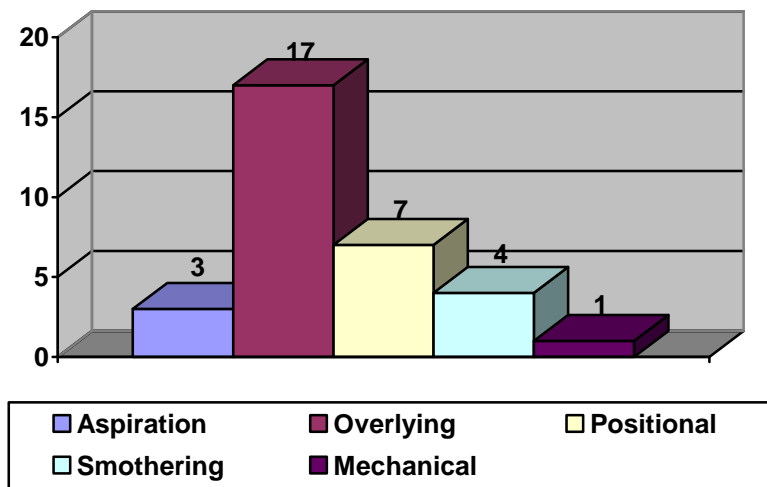
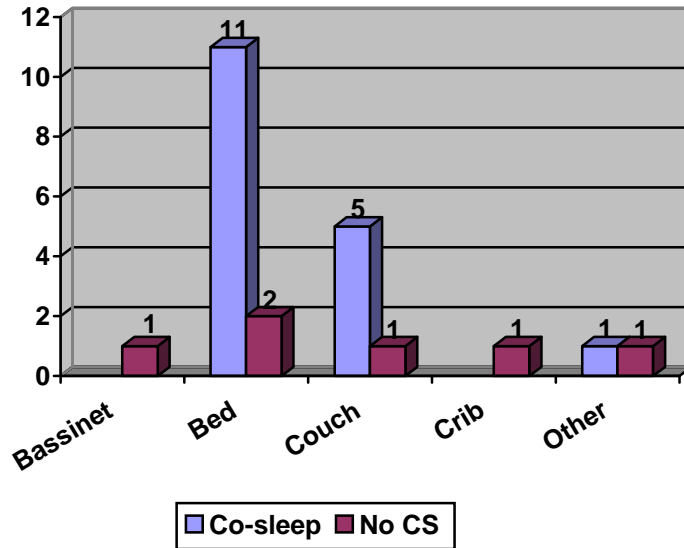


Chart 6. Infant Asphyxiation Deaths by Mechanism, Accident, 2007.

Environment & Circumstances

All of the deaths occurred in sleep environments. Co-sleeping, or sharing of the same sleep surface with the intent to sleep, is found in all overlying deaths. It was also present in an additional 9 deaths. Therefore, co-sleeping was present in 26 (81%) infant asphyxiation deaths.



The majority of infant asphyxiations occurred in beds, accounting for 13 deaths, 11 of those with co-sleeping. Only 2 deaths occurred on surfaces intended for infant sleep, and in both of those deaths the sleep surface had been modified resulting in a potentially risky sleep environment for an infant. It is important to note that in at least 6 deaths an infant sleep surface (i.e. crib or bassinet) was available in the home but was not being utilized for the

Chart 7. Infant Asphyxiation Deaths by Location, Accident, 2007.

Alcohol & Drug Use

A disturbing finding in these deaths was the presence of alcohol and/or other drug use by the child’s caregiver and/or co-sleeper. In 6 (19%) deaths, the adult(s) responsible for the child’s well-being either admitted to being under the influence at the time of the fatal event or tested positive for a substance. In addition, with some overlap, drug paraphernalia was found in the home in 6 deaths, and in 7 deaths the caregiver reported past drug use. While law enforcement was notified in all but 1 death, drug or alcohol testing only took place in 2 deaths. In 22 deaths, there was no indication that supervisors were assessed for being under the influence and in 3 cases it was clear that the supervisor was not under the influence of drugs or alcohol. Caregivers were charged in 2 cases as a result of drug or alcohol use in these deaths.

Asphyxiation Deaths of Older Children

There were 9 asphyxiation deaths of children between the ages of 1 year and 18 years:

- There were 5 white children, 1 black child, 1 biracial child, and 2 children with no identified race. Two children were Hispanic.

- Male children accounted for 8 deaths, and 1 child was female.
- Toddlers between the ages of 1 and 4 years accounted for 6 deaths. The remaining 3 deaths were of children between the ages of 5 and 9 years.

The mechanisms of asphyxiation were as follows:

- Aspiration or choking on foreign objects such as toys, beads, etc. accounted for 4 deaths of children between the ages of 1 and 9 years.
- There was 1 additional child under the age of 4 years who choked while eating.
- There were 2 children between the ages of 1 and 4 years who died as a result of becoming wedged between a bed and a wall (positional asphyxia).
- Hanging accounted for 2 deaths of children between the ages of 10 and 14 years. One death was thought to be autoerotic in nature and the other was determined to be from the practice of an ill-conceived “game.”

DROWNING

In 2007, 26 children died from drowning. The majority were male (15), and females accounted for 11 deaths.

White children made up 14 deaths, black children accounted for 8 deaths, 2 children were Native American, and 2 children did not have an identified race but ethnicity was identified as Hispanic.

To better understand these deaths, age will be examined based on the location of the drowning and the activity at the time of the death.

As can be seen in chart 8, infant deaths occurred in bathtubs or in child pools. The 1 to 4 years age group died in a greater variety of bodies of water. The 5 to 9 years age group drowning deaths occurred mainly in pools. The 10 to 14 years age group died in freshwater or seawater (i.e. lakes, rivers, oceans, quarries, etc).

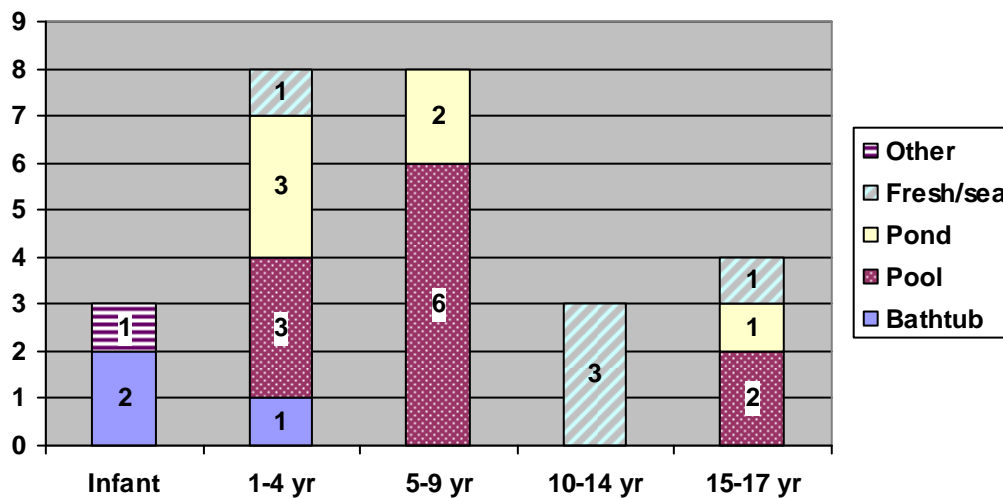


Chart 8. Drowning Deaths of Children by Location and Age Group, Accident, 2007.

Deaths by Location

The 3 bathtub drowning deaths all occurred at the residences of the child, as did the death in the child pool. The remaining 22 deaths are evenly divided into 2 categories: freshwater/seawater and pools.

Eleven drowning deaths occurred in freshwater or seawater. In 5 deaths, the water source was at a public access area (i.e. a park). Another 5 deaths occurred on private property, and in 1 death the information about the location was not available. Though information about swimming rules may not be applicable (i.e. drowning death occurred in an area not meant for swimming) in one death swimming rules were posted at the site of the drowning.

Pool Deaths

Location	Number
Residence (home)	5
Residence (other)	1
Community	2
Public Pool	1
Recreation Center	1
Water Park	1

Table 2. Accidental Drowning Deaths of Children by Pool Type, 2007.

Approximately half (6) of the pool deaths occurred at a residence:

- Four of the pools were in ground, 3 of which were fenced.
- 1 was above ground, and the pool was not fenced.
- There was no information about the pool in one death.

The remaining 5 pools were all in ground and fencing information was not applicable, as all of the deaths occurred while the children were participating in a water activity (i.e. swimming).

Activity

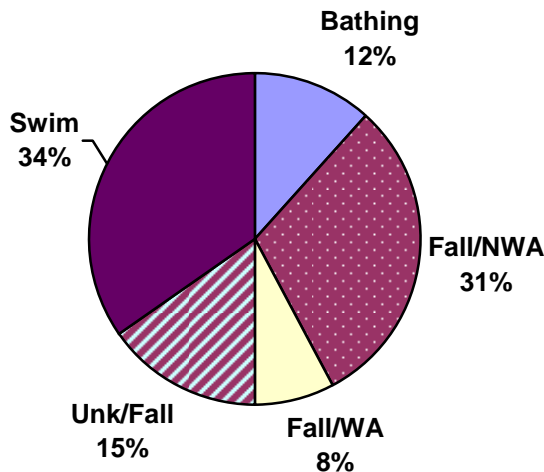


Chart 9. Child Drowning Deaths by Activity, Accident, 2007.

The majority of decedents drowned while swimming (9). These children included the age groups from 5 to 17 years. Children who fell into water when not involved in a water activity (NWA) accounted for 8 deaths. These children ranged in age from infant to 9 years. The activity of 4 children was unknown when they fell into a water source. These children were between the ages of 1 year and 9 years. Three children 1 year of age or younger drowned while

bathing. There were 2 children who drowned while participating in a water activity other than swimming.

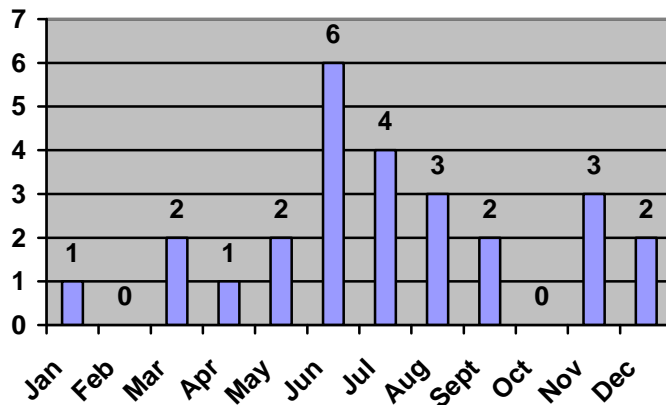
Swimming Ability

Swimming ability fell into 4 categories. In the majority of cases, the decedent could not swim or was identified as a non-swimmer. In 4 deaths, swimming ability was not applicable (bathtub and infants).

Able to Swim	Non/poor Swimmer	Ability Unknown	Not Applicable
2	12	8	4

Table 3. Child Drowning Deaths by Swimming Ability, Accident, 2007.

Months



Drowning deaths peaked during the summer months, with half of the deaths occurring from June through August. However, it is apparent that drowning deaths are spread over all months of the year.

Chart 10. Child Drowning Deaths by Month, Accident, 2007.

Safety & Supervision

None of the 26 children was wearing a personal floatation device (PFD), regardless of whether they were known to be in or around water.

Supervision varied immensely:

- In at least 2 of the bathtub drowning deaths, the children were not under any supervision, and in 1 death the supervisor was under the influence of a substance.
- In 3 deaths an adult or teen relative was supervising the child at the time of the drowning.
- In 6 deaths the decedent was with other children when the drowning occurred.
- In 6 deaths the children left their homes unnoticed, and in another 3 deaths the children wandered out of sight and into a body of water.
- In 1 death the young child was with another child of the same age and another young child was left alone outside.
- In 1 death a teenager was swimming alone.
- In 2 deaths no information was available about supervision.

Therefore, a supervisor was present in only 3 of the 26 drowning deaths.

FIRE

Deaths from fire-related injuries (carbon monoxide or burn injuries) accounted for 22 child fatalities. Deaths in fires often have multiple victims, which was evident in 2007, with 13 fires resulting in the aforementioned deaths.

Demographics

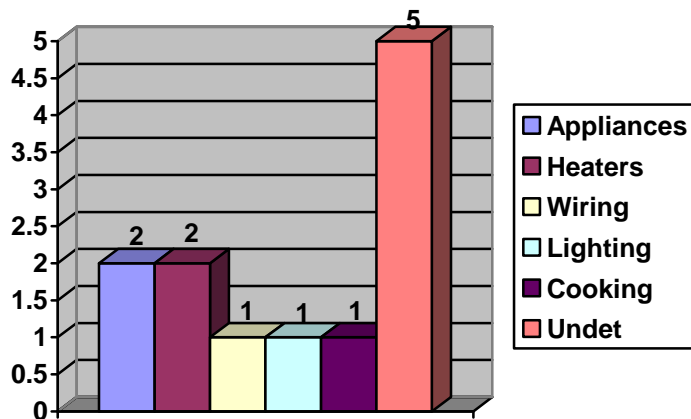
Children between the ages of 5 and 9 years accounted for the slight majority, with 8 deaths, followed by 7 deaths of children between the ages of 1 and 4 years. There were 5 deaths of 10- to 14-year-olds and 2 infant deaths.

The overwhelming majority were male (17), with 5 deaths of females. Black children accounted for the most fatalities, with 11 deaths. White children followed with 9 deaths. Two children had no identified race but were identified as Hispanic in ethnicity.

Circumstances

All of the fatal fires occurred in residences. In 21 deaths the residence was the home of the decedent. The locations of the 13 fires included:

- 5 houses
- 4 mobile homes
- 3 apartments
- 1 multifamily home



. In 5 fires, an investigation could not determine the cause of the fire. Appliances accounted for 2 fires. Heaters accounted for 2 fires. Electrical wiring, lighting decorations and cooking each accounted for 1 fire, and in 1 fire no information was available about the cause of the fire.

Chart 11. Cause of Fire in Fatalities of Children, Accident, 2007.

In most fires (8), the presence and functioning of smoke detectors could not be determined through investigation. This may be a result of intense heat melting the

devices. There were no smoke detectors in 2 fires, a smoke detector was present and not operational in 1 fire, and working smoke detectors were present in 2 fires.

Fires occurred throughout the year. December and March each had 3 fires, July and September had 2 fires, and February, August and November each had 1 fire.

The child's activity at the time of the fire was unknown in 11 deaths. In 10 deaths, the children were known to be sleeping. One child was cooking.

In 12 fires, a parent(s)/caregiver or other adult relative was in the home at the time of the event and in 1 fire a decedent was the supervisor of younger siblings.

FIREARM

There were **3** firearm injury deaths that were determined to be accidental in 2007:

- All of the children were male, and 2 were white and 1 was black.
- A young adolescent was killed after finding a handgun. It was not known how the decedent came into possession of the weapon.
- An adolescent was killed after a shotgun fell and discharged while under the supervision of an adult.
- A teenager was killed when he was firing a rifle while under adult supervision.

TOXIN

There were **16** deaths from toxic substances (i.e. poisoning) in 2007. There were 2 categories into which these deaths were separated: the first is non-abuse and the second is abuse of a substance to get high.

Non-Abuse

These toxin deaths occur when the death resulted from taking a drug for medical purposes or exposure to a substance that was not used with the intention to get high. The circumstances varied from taking a prescribed medication to finding a substance and ingesting the toxin. There were **5** deaths that fell into this category:

- **3** children under the age of 4 years died as a result of accidental poisoning. Circumstances under which these young children died included:
 - A child finding a prescription drug and ingesting it
 - A child being given an inappropriate medication by a caregiver
 - Ingestion of an available chemical
- **2** children between the ages of 5 and 14 years died from excessive levels of medications prescribed to the children. In these cases, it appeared that the decedents were taking the drug as prescribed and other factors may have contributed to the deaths. These factors may include metabolic issues, drug interactions, improper drug prescription, etc.

Recreational/Abusing A Substance

These fatalities, in which a child knowingly takes a drug not intended for medical purposes, accounted for **11** deaths:

- One child was between the ages of 10 -14 years, and 10 children were between the ages of 15 and 17 years.
- Males accounted for 8 deaths, females for 3 deaths.
- All of the children were white.

Substance abuse prevention efforts focus on illicit drugs such as cocaine and heroin. While these drugs are still a problem, the recent trend indicates that the majority of teenagers who die while abusing substances die from using prescription drugs. In 2007, these abused prescription drugs were not drugs prescribed to the decedent and were lethal in 9 deaths. In 4 of those deaths, the prescription drug (Rx) was lethal in combination with illicit drugs, and in 1 death the prescription drug was lethal in combination with an over the counter (OTC) medication. An illicit drug was the sole lethal drug in 1 death and alcohol poisoning was responsible for 1 death.

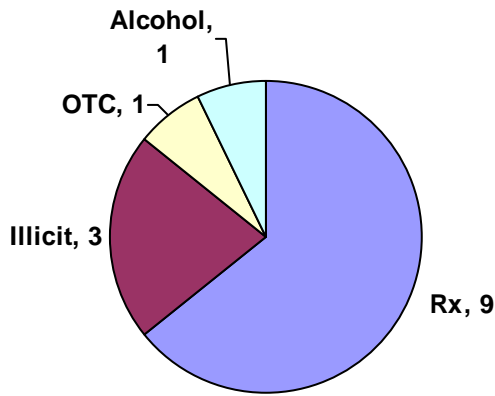


Chart 12. Child Fatalities from Drug/Alcohol Abuse, Accident, 2007.

Lethal Drugs

Methadone was present in 5 deaths and was the sole lethal drug in 3 deaths. Oxycodone was a lethal drug in 3 deaths. Morphine, heroin, cocaine, and fentanyl were present in at least 1 death each. Drugs that were also confirmed and quantitated but not determined to be lethal included: alprazolam, clonazepam, cocaine and metabolites, over the counter medications, and alcohol.

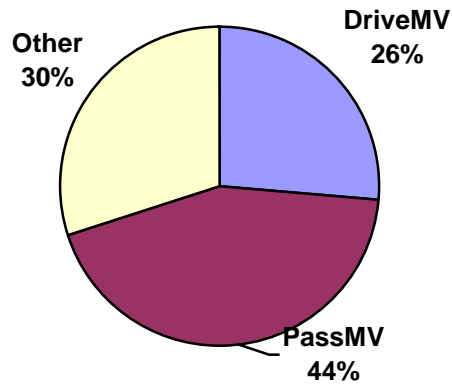
Circumstances

In 6 deaths, information was not available or it was not determined where/how the decedent obtained the drugs. Drugs were obtained in the following ways in the remaining 5 deaths: a friend, a dealer, a prescription for someone else in the household, a prescription for someone outside the household, and in 1 death the drug was and stolen.

Of the 11 deaths, 10 decedents had a known drug use/abuse history. Four of those children had prior overdoses.

VEHICLE

There were **137** deaths sustained in vehicle crashes in 2007. Prevention strategies differ based on the location of the decedent (inside or outside of a vehicle), vehicle type, etc. To better understand how to prevent these deaths, the data have been categorized for analysis:



Occupant: Teenagers and children who were driving or were passengers of a motor vehicle such as a car, truck, van, etc.

Non-occupant: Includes pedestrians, bicyclists and skateboarders.

Other Vehicles: Includes ATVs, motorcycles/mopeds, air transport, etc.

Chart 13. Vehicle-Related Child Deaths by Category, Accident, 2007.

Motor Vehicle Occupant

There were **88** crashes that resulted in **96** deaths of child occupants of motor vehicles. To better analyze the circumstances of these crashes, the occupancy has been divided between *Decedent as Driver* and *Decedent as Passenger*.

Decedent as Driver

There were **36** adolescents or teens that were killed while driving a motor vehicle.

Demographics

Generally, the age of teen drivers falls within the expected ages of 15 through 17 years (permit through licensure). However, there were 2 children driving that were below these ages.

Age	Total
10 -14 years	2
15 years	0
16 years	15
17 years	19
Total	36

Table 4. Adolescent Driver Age in Fatal Motor Vehicle Crashes, Accident, 2007.

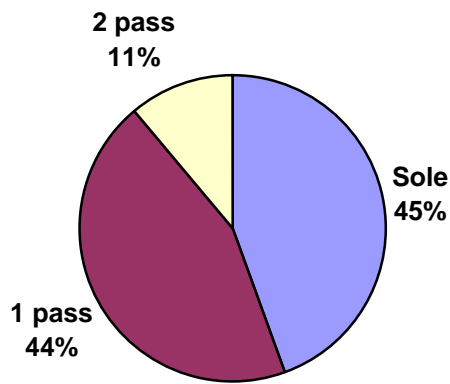
The majority of drivers were male (25), and 11 drivers were female.

White children accounted for 29 (81%) deaths, black children for 4 deaths, and 3 children did not have an identified race but were classified as Hispanic in ethnicity.

In addition to the drivers, there were 3 crashes in which passengers were also killed. In 2 of those crashes 1 passenger was killed. In 1 crash there were 2 passengers that died as well as the driver. Their deaths are recorded in the passenger section.

Circumstances

The decedent was driving a passenger car in 29 (81%) crashes, a pickup truck in 4 crashes, an SUV in 2 crashes and a van in 1 crash.



The number of occupants in the vehicle was examined. The decedent was the sole occupant in 16 (44%) deaths and had one passenger in another 16 (45%) deaths. There were 4 deaths in which the teen driver had 2 passengers. There were no teen driver deaths with more than 2 passengers.

Chart 14. Child Driver Deaths by Vehicle Occupancy, Accident, 2007.

Half (18) of the drivers were restrained and 13 (36%) drivers were not. In 5 (14%) deaths, it could not be determined if the decedent was restrained at the

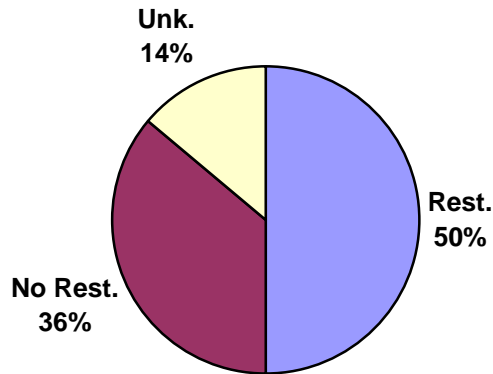
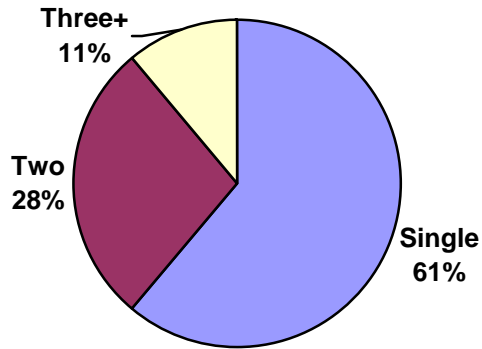


Chart 15. Child Driver Deaths by Restraint Use, Accident, 2007.



Single-vehicle crashes accounted for the most deaths, with 22 (61%) crashes. There were 10 (28%) crashes involving 2 vehicles and another 4 (11%) crashes in which three or more vehicles were involved.

Chart 16. Child Driver Deaths by Number of Vehicles Involved, Accident, 2007.

Time of Day

Crash times were examined based on eight hour increments:

The North Carolina Graduated Driver Licensing System sets forth selected hours in which teen drivers can operate a vehicle. While we do not have information about each driver’s level status, we will use those times to outline the hours in which crashes occur. The majority of crashes occurred between 5 am and 9 pm, with 23 (64%) crashes. There were 8 (22%) crashes between midnight (Mid) and 5 am and 4 (11%) crashes between 9 pm and midnight. There was 1 death in which the time of the crash was not known.

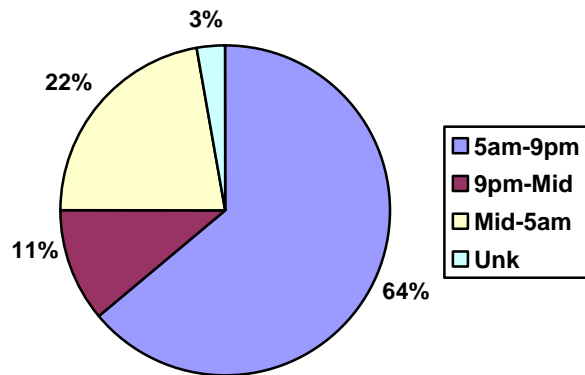
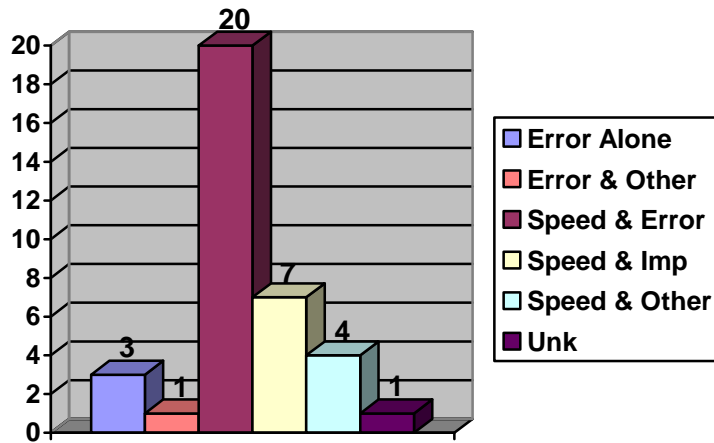


Chart 17. Child Driver Deaths by Time of Day, Accident, 2007.

Crash Cause



The decedent was found to be at fault in 34 (94%) of the crashes. Of note, the other 2 at fault drivers who were not killed were between the ages of 16 and 20 years old.

Examples of error are inattention and failure to yield. Error, without other factors (i.e. speed, impairment) was found to be the cause of the crash in 3 deaths. Speed was the most prevalent underlying factor in 31

Chart 18. Child Driver Deaths by Crash Factors, Accident, 2007.

(86%) of the crashes. Based on the estimated speed at which a driver was traveling (investigation reports), the average speed was greater than 20 mph over the posted speed limit. In addition, in 7 of the speeding crashes the driver was impaired. Six of these were the decedents (the other was the driver of the other vehicle). Other factors, such as sleep impairment, mechanical failure and poor weather, were factors in the remaining deaths. The cause of the crash was not determined in 1 death.

Decedent as Passenger

There were **60*** child passengers who died as a result of motor vehicle crashes in North Carolina in 2006.

Age Group	Count
Infant	1
1-4 years	8
5-9 years	9
10-14 years	15
15-17 years	27
Total	60

Table 5. Child Passenger Deaths in Motor Vehicle Crashes, Accident, 2007.

Teens between the ages of 15 and 17 years accounted for almost half (45%) of the passenger fatalities. The 10-14 years age group accounted for 25% of the deaths, 5-9 years for 15%, 1-4 years for 13% and there was 1 infant death.

Examination by race shows that white children accounted for 33 (55%) child passenger fatalities. Black children followed with 16 (27%) deaths, followed by unidentified race in 8 deaths, Native Americans for 2 deaths and 1 Asian child. Of the 8 children with an unidentified race, 7 were of Hispanic ethnicity.

The majority of children were male (37; 62%), while 23 passengers were female.

* Included in this number is a death in which a child sustained injuries at an earlier time but did not die from those injuries until 2007. Information about the crash was available so the death was included.

Passenger Seat Belt Use

<i>Age Group</i>	<i>Child Restraint</i>	<i>Seat Restraint</i>	<i>Improper Restraint</i>	<i>No Restraint</i>	<i>Unknown</i>	<i>Total</i>
<i>Infant</i>	0	0	1	0	0	1
<i>1-4 years</i>	3	2 (25%)	0	3	0	8
<i>5-9 years</i>	1	2 (22%)	0	4	2	9
<i>10-14 years</i>	0	4 (27%)	0	11	0	15
<i>15-17 years</i>	0	12 (44%)	0	14	1	27
<i>Total</i>	4	20 (33%)	1	32	3	60

Table 6. Child Passenger Restraint Use in Motor Vehicle Fatalities, Accident, 2007.

Out of 60 passenger fatalities, only 24 (40%) children were known to be properly restrained at the time of the crash. The majority of the 10 to 14 years age group was not restrained (73%), while 52% of the 15 to 17 years age group was not wearing seat belts. Just under half of both the 1-4 years and 5-9 years age groups were not wearing seat restraints. One passenger died from injuries sustained from a fall while riding in the bed of a pickup truck.

Passenger Circumstance Information

Half (30) of the crashes involved only a single vehicle. Two vehicles were involved in 26 crashes, and in 4 crashes there were more than 2 vehicles. The driver of the vehicle in which the decedent was a passenger was found to be at fault in 51 (85%) crashes. The driver of the other vehicle was found to be at fault in 8 crashes and in 1 crash no fault could be assigned. In the 59 cases where fault was determined, driver age groups were:

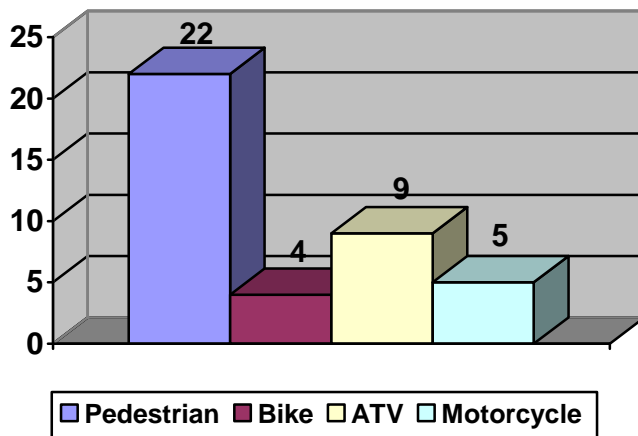
<i>Age Group</i>	<i>Driver with passenger at fault</i>	<i>Other driver at fault</i>
<i>Teen</i>	14	1
<i>Over 18 years</i>	37	6
<i>Unknown</i>	0	1
<i>Total</i>	51	8

Table 7. Motor Vehicle Crashes with Child Passenger Deaths, At Fault Driver, Accident, 2007.

Crash Causes

Crash causes often involve multiple factors. While error is present in every crash, error alone was responsible for 15 deaths. Speed was a significant factor in 32 deaths. Drug/alcohol impairment was a significant factor in 8 deaths. In 10 deaths, other factors (such as poor weather, mechanical failure, etc) contributed to the crash. In 2 deaths, the cause of the crash was not determined. Speed and impairment overlapped in 5 deaths.

Non-Occupant and Other Vehicle Deaths



Non-occupant and other vehicle deaths occur on and off road. In 2007, there were non-occupant pedestrians and bicyclists. The other vehicle deaths included ATVs and motorcycles/dirt bikes.

Chart 19. Non-occupant/Other Vehicle Child Deaths, Accidents, 2007.

Pedestrians

Child pedestrians accounted for 22 of the crash-related fatalities in 2007:

Age Group	Total
Infant	0
1-4 years	8
5-9 years	6
10-14 years	4
15-17 years	4
Total	22

Table 8. Child Pedestrian Deaths by Age Group, Accident, 2007.

- The majority were between the ages of 1 and 4 years (36%), followed by the 5 to 9 years age group (27%). There were equal numbers of deaths (4) for the 10 to 14 years age group and the 15 to 17 years group.
- Males accounted for 12 (55%) deaths and females for 10 (45%) deaths.
- Most of the children were white (12), followed by black children (6), Asian children (2) and 2 children who did not have an identified race but were Hispanic in ethnicity.

These deaths can better be explained by examining those deaths that occurred in yards or driveways and those deaths that occurred on streets and roads.

Yard & Driveway Deaths

There were 6 children killed while in yards or driveways:

- Children between the ages of 1 and 4 years accounted for 5 deaths, and 1 child was between the ages of 5 and 9 years.
- Children were backed over by a SUV in 2 cases.
- Children were struck by a larger vehicle (SUV; pickup) when the vehicle was moving forward in 2 instances.
- Three children were struck when they were in a vehicle and left it. In 2 of these cases, the child had been in the vehicle alone.

Street Deaths

The majority (16) of pedestrian deaths occurred in the street/road:

- Most of the decedents were between the ages of 5 and 9 years (5), followed by 4 deaths in both the 10 to 14 years and the 15 to 17 years age groups. There were 3 deaths in the 1 to 4 years age group.
- Most (12) of the children were struck and killed while crossing the street.
 - In 3 deaths the child was crossing the street with an adult.
- Three children were described as darting into the street.
- One child was walking in the road.
- In 6 deaths, the child was walking in the dark on an unlighted road.

Bicyclists

Children riding bicycles that were struck by motor vehicles resulted in 4 deaths in 2007. Their ages were: 10 years, 15 years, 16 years and 17 years. Three of the children were male and 1 was female. There were 2 black children and 2 white children.

All of the children were killed in the street and made an error that resulted in the child being struck by a motor vehicle. In 1 death, no information was available about helmet use. The remaining 3 children were not wearing helmets.

ATVs

Demographics

There were 9 children who died from injuries sustained in ATV accidents. One child died as a result of injuries sustained in an ATV crash years earlier. As no information was available on this case, the 8 deaths resulting from crashes in 2007 will be reported here.

The majority of children who died riding ATVs were between the ages of 10 and 14 years (5), with 2 children between the ages of 5 years and 9 years and 1 child that was 3 years old.

White children accounted for the greatest number of deaths, with 7 child fatalities. Hispanic children with no identified race accounted for the remaining 2 deaths. Only 1 child was female.

Circumstances

The majority of crashes occurred on private property (7) and were single-vehicle accidents (7). One collision on private property involved another ATV. One crash occurred when the ATV left the road.

Only 2 children were wearing helmets; the remaining 6 were not.

Three of the children were driving, 1 child was a passenger, and position was not known for 1 child. In only 1 death was there a single person riding the ATV. In 6 deaths there were 2 riders, and in 1 death there were several children riding the ATV.

When the decedent was a passenger, the drivers were children in 2 deaths, and in 2 deaths the driver was an adult.

One person was charged in one death.

Motorcycles

There were 5 children who were riding motorcycles when they sustained fatal injuries in 2007:

- The ages of the children were: 5 years, 11 years, 14 years (2 deaths) and 15 years
- All of the children were white males

Circumstances

All of the children were driving the motorcycles and were riding alone. All of the decedents were wearing helmets. Of the 5 motorcycles, 4 of them were dirt bikes (off-road use).

One death was from a single-vehicle crash. Two deaths were from a motorcycle vs. motorcycle collision, and 2 deaths were motorcycle-car collisions.

Two of the deaths occurred in the road, where the driver of the car was found to be at fault. One death occurred on private property. Two deaths occurred at motorcycle race tracks.

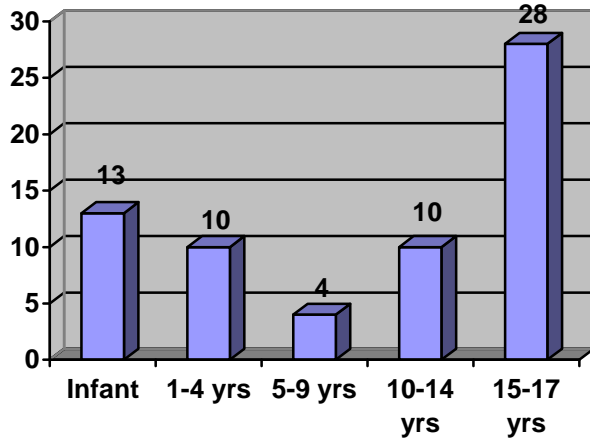
OTHER

There are several categories of accidental deaths that occur in very small numbers. In 2007, there were 8 deaths that did not fit into the more common categories of accidental death:

- A toddler died from injuries sustained from a dog attack after the child wandered into a nearby yard where the animal was chained.
- A teenager was killed after sustaining traumatic brain injury from being struck while participating in an athletic event.
- An adolescent with a history of a neurological condition sustained head trauma after a fall related to the disorder.
- An infant sustained a crush injury when a piece of unstable furniture fell on him.
- There were 2 infants that died as a result of medical errors.
- An adolescent died from ingestion of foreign material.
- A teenager died in a machinery accident while on the job.

HOMICIDE

There were **65** children who lost their lives at the hands of another in 2007.



The majority (28, 43%) were teens aged 15 to 17 years. Infants followed with 13 (20%) and the 10 to 14 years and 1 to 4 years age groups each had 10 deaths (15% each). The 5 to 9 years age group had the lowest number of homicides with 4 deaths.

Chart 20. Child Deaths by Age and Manner, Homicide, 2007.

Black children accounted for the largest number of homicide victims (37). White children made up less than half that, with 18 homicides. Children with no identified race but of Hispanic ethnicity accounted for 10 (15%) deaths.

Male children accounted for 44 (68%) deaths and females for 21 deaths.

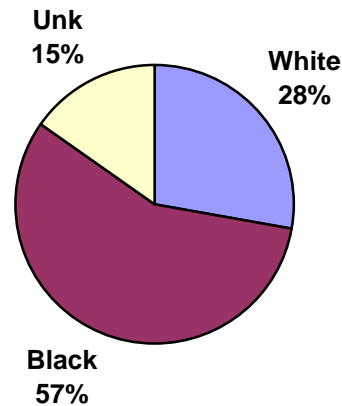


Chart 21. Child Deaths by Race, Homicide, 2007.

The CFPT divides homicides into 2 categories: homicides that occur at the hands of a parent or caregiver and homicides that do not. In 2007, there were 25 children killed by someone responsible for keeping the child safe, and there were 40 homicides perpetrated by non-caregivers.

Homicide by Parent or Caregiver

In North Carolina, in 2007, 25 children were victims of Homicide by a Parent or Caregiver (HPC). Also known as Child Abuse Homicide (CAH), these deaths occur at the hands of a person responsible for the child’s well-being.

Newborns accounted for 4 deaths, and other infants accounted for 9 deaths, totaling 13 (52%) deaths under the age of 1 year, followed by the 1-4 years age group with 10 deaths. There were 2 children between the ages of 5 and 9 years and no children in the older age groups.

White children accounted for 14 of the HPC deaths, black children for 6 deaths and 5 children were Hispanic with no identified race.

There were 14 male children and 11 females.

Means

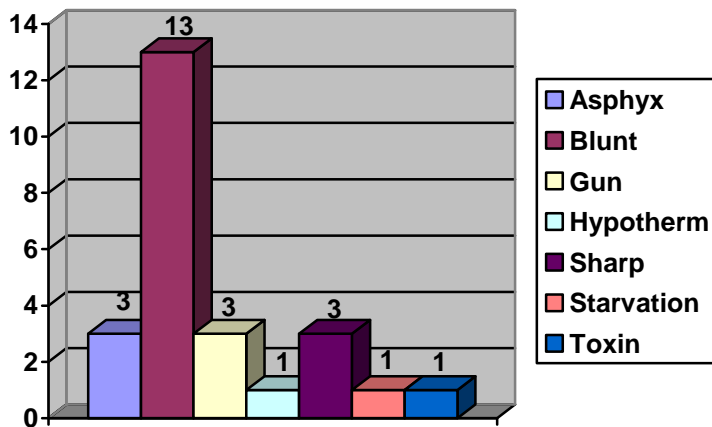


Chart 22. Child Deaths by Means, HPC, 2007.

Neonaticide, the killing of a newborn, occurred in 4 deaths. Two of the neonates were killed by strangulation, 1 by sharp force injury and 1 by hypothermia. Infants killed after the first 24 hours of life died by asphyxiation (1), poisoning (1), starvation (1) and abusive trauma to the head and/or abdomen (6). The victims between the ages

of 1 and 4 years died from blunt trauma (7), gunshot wounds (2), and sharp force injuries (1). The two older victims died from gunshot wounds (1) and sharp force injuries (1).

Excluding the neonaticide deaths, 11 (52%) of the 21 remaining children showed evidence of prior abuse either at autopsy or through review of the child’s history.

Circumstances

The circumstances of homicide vary greatly. However, when examining HPC deaths, there are several categories that seem to fit most deaths:

- Neonaticide: 4 deaths occurred when the newborns were abandoned or unwanted.

- Mental Health: in 1 death, the parent was found to be insane at the time of the crime.
- Domestic Violence: 3 deaths were believed to be a result of domestic violence between the suspect and the child’s parent.
- Severe neglect: 1 death.
- One death was a result of an attempt to control the child.
- In 2 deaths the motivation was not clear.
- The remaining 13 deaths were abusive in nature.

There were 3 instances of murder-suicide (1 double murder which involved another adult and 1 double murder of 2 children). There was also a death in which another child survived the attack as well as the suspect surviving an attempt at suicide.

Suspects & Perpetrators

A death is classified as an HPC when it is determined that the death was a result of 1) intentional infliction of injuries or 2) acts of omission directly responsible for the death, by the person responsible for the well-being of the child at the time.

A biological parent was the suspect in 15 deaths (in one death, both parents were charged). A stepfather or the mother’s boyfriend (MBF) were suspected in 2 deaths each. In 3 deaths no one was charged; however, it was determined that the injuries sustained took place while the child was under the supervision of a parent/caregiver. In 2 of the neonaticides in which the infant was disposed of shortly after birth, the mother was never identified.

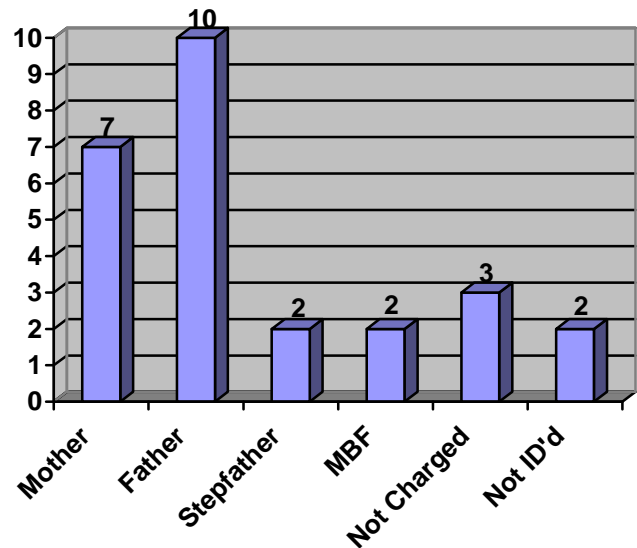
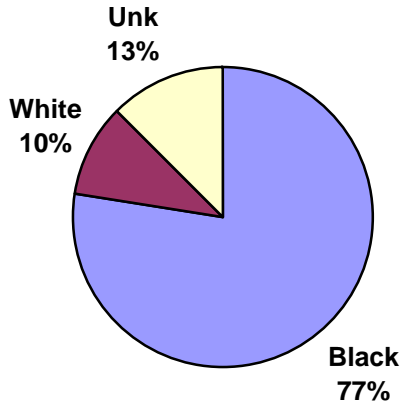


Chart 23. Child - Suspect Relationship, HPC, 2007.

Other Homicides

There were **40** homicides of children in which the perpetrator was not a parent or caregiver.

Teenagers between the ages of 15 and 17 years accounted for 28 (70%) deaths. The 10 to 14 years age group accounted for 10 deaths while the 5 to 9 years age group accounted for 2 deaths from homicide in 2007.



Black children accounted for the overwhelming majority of child homicides, with 31 (77%) of the 40 homicides. White children accounted for 4 deaths, and for 5 children, the race was not identified. There were 6 children who were of Hispanic ethnicity.

Chart 24. Child Deaths by Race, Other Homicide 2007.

The majority of children were male, accounting for 30 deaths.

Means

Firearms were used in the majority of these homicides, causing 36 deaths. There were 3 children killed by sharp instruments and 1 by asphyxiation.

Firearms included 28 handguns, 3 rifles (including an assault rifle), and 1 shotgun. The firearm type was not identified in 2 deaths.

There were 2 decedents who were killed by law enforcement officers (legal intervention). Both of those deaths were the result of handgun injuries.

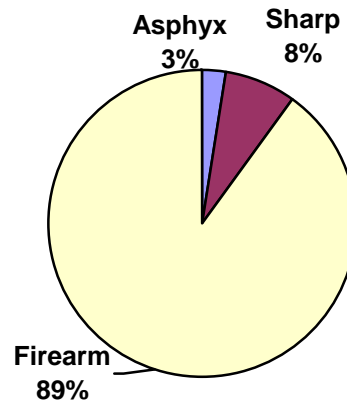


Chart 25. Child Deaths by Means, Other Homicide, 2007.

Circumstances

The slight majority of victims did know the suspect (18; 45%). In 2 deaths the suspects were former intimate partners of the victims and in both cases the victim left behind a child that was the child of the suspect. In 17 (42%) deaths there was no known relationship between the victim and the suspect. In 3 deaths available information did not identify the nature of the relationship between the victim and the suspect, and in 2 deaths no identification of the suspect was made.

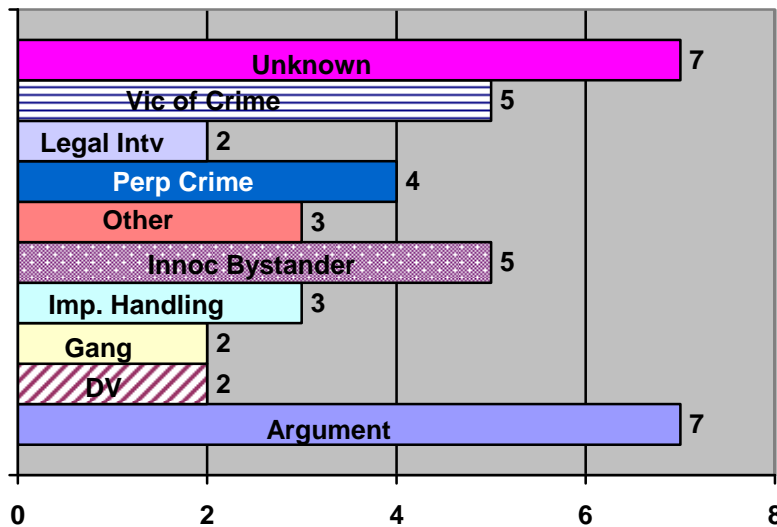


Chart 26. Child Death Circumstances, Other Homicide, 2007.

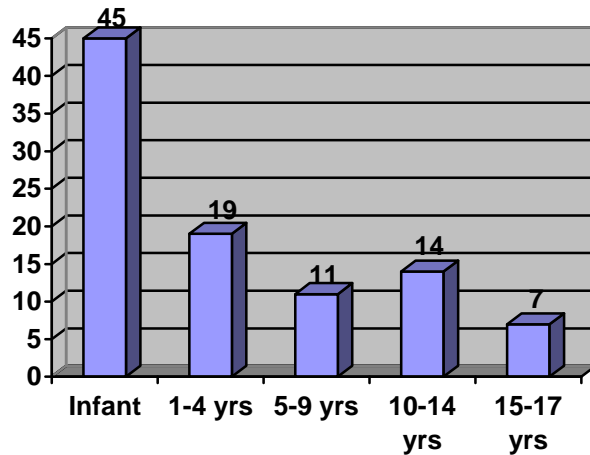
The majority of decedents died as a result of an argument or an altercation (7) with an equal number of deaths with unclear or unknown motivation. Six decedents were killed suspected of perpetrating a crime, 2 of which were shot by law enforcement. Five children were not the intended victim when they were shot. Five children were the victims of another crime (i.e. robbery or sexual assault) when they were killed. Three children were shot when another person was improperly handing a firearm and discharged it, killing the decedent. Two deaths were confirmed gang-related shootings and another 2 deaths were a result of domestic violence. There were 3 deaths that did not fit in these categories.

In 25 of the deaths, one person was charged or found to be responsible for the homicide. In 8 deaths, 2 or more people were charged in the crime. Two decedents were shot by law enforcement officers who were pursuing the decedents as suspects in crimes. Both decedents had weapons. There were 5 deaths in which no information was available or no suspect was identified.

NATURAL

There were **196** child deaths certified as natural manner.. Of these, 100 were determined to be SIDS. The other 96 natural deaths will be discussed first.

Natural Deaths



The majority (47%) of the natural deaths occurred in infants, followed by the 1-4 year age group (20%) and the 10-14 years age group (15%). The 5-9 years group (11%) and the 15-17 years group (7%) had the least number of natural deaths.

There are hundreds of causes of natural death. To report these deaths, the causes have been collapsed into several broad categories.

Chart 27. Child Deaths by Age Group, Natural, 2007.

The majority of deaths fell into 2 categories, with both cardiovascular (CV) and pulmonary containing 23 deaths each. Cardiovascular deaths include diseases and illnesses like congenital heart disease, cardiomyopathy and myocarditis. Pulmonary deaths encompass diseases and illnesses of the lungs, such as pneumonia or asthma.

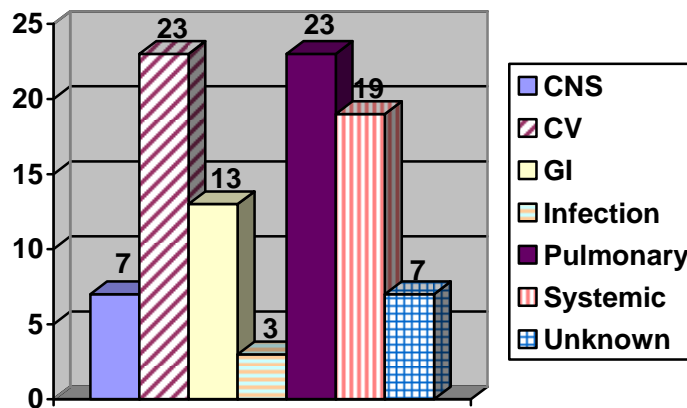


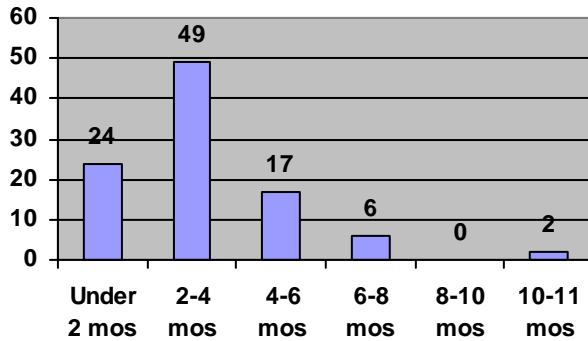
Chart 28. Child Deaths by Category, Natural, 2007.

There were 19 deaths from systemic illness or conditions, such as complications of cerebral palsy, sepsis and complications of prematurity. Gastrointestinal disorders such as bowel obstructions and illnesses such as gastroenteritis accounted for 13 deaths. There were 7 deaths from central nervous system (CNS) disorders such as seizure disorders. Infections, such as influenza or viral illnesses, caused 3 deaths.

There were 7 deaths in which no disease or illness was identified as the cause of death, but no external cause was found either, leaving only a natural manner of death.

Sudden Infant Death Syndrome

There were **100** children whose deaths were certified as Sudden Infant Death Syndrome (SIDS) in 2007.



Approximately one-half (49) of the SIDS deaths occurred between the ages of 8 weeks and 16 weeks. The second largest group of SIDS deaths occurred in infants younger than 8 weeks old, with 24% of the deaths. Only 8 deaths occurred between the ages of 6 months and 11 months.

Chart 29. Child Deaths by Age Group, SIDS, 2007.

The majority of children were white (51). Black children followed with 36 deaths, unidentified race accounted for 8 deaths, 3 infants were Native American, 1 child was Asian and 1 child was biracial. Nine children were of Hispanic ethnicity. Sixty percent of the infants were male..

Circumstances & Risk Factors

The majority of deaths occurred at the child’s home (85%). Seven deaths occurred at residences other than the child’s home, and 2 deaths occurred at daycare facilities, one of which was unlicensed. There were 6 deaths in which no location information was available to confirm location of onset.

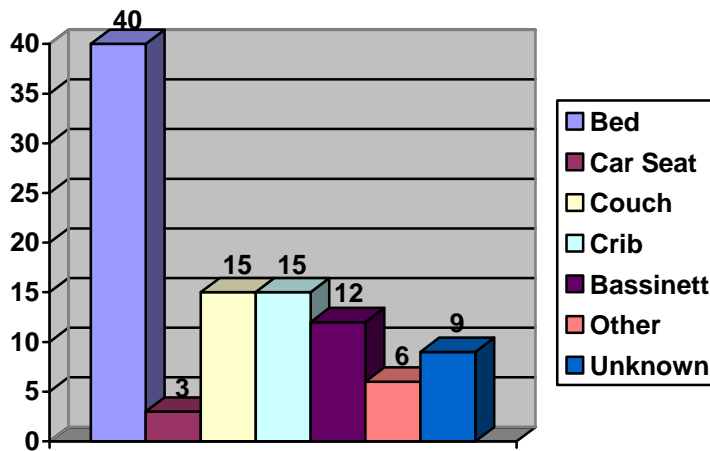


Chart 30. Child Deaths by Sleep Location, SIDS, 2007.

The majority of SIDS deaths occurred on beds, ranging in size from twin to king. There were an equal number of deaths on couches and in cribs (15 each). Bassinets were the sleep locations for 12 deaths and 3 deaths occurred in car seats. There were 6 deaths that occurred in different sleep surfaces such as play pens or pallets. In 9 deaths sleep surface information was

not available.

Co-sleeping was documented in 45 deaths and unknown in 9 deaths. In 15 deaths, the child was co-sleeping with 1 parent, and in 12 deaths the decedent was sleeping with at least 1 parent and 1 sibling. In 9 deaths the decedent was sleeping with both parents. In 4 deaths the child was sleeping with another infant. In 2 deaths the decedent was sleeping with an adult, in 1 death with an older sibling, and in 2 deaths co-sleeping was known to be present but the relationship was not identified.

Additional Risk Factors

The Back to Sleep Campaign was launched in 1994, encouraging parents to place their infants on their backs to sleep. Unfortunately, in 2007, information on the sleep position was not available in 33 deaths. For the remaining deaths, it was reported that the children were placed down in the following positions: 26 infants were placed on their backs, 23 were placed on their stomachs, and 17 children were placed on their sides. Three children were sleeping in a seated position in car seats.

There are several risk factors that are found with frequency in sudden unexpected deaths of infants. The CFPT is attempting to collect information on; risk factors for these deaths, however, the majority of this information was not available for 2007 data. However a picture of this information includes:

Category	Yes	No	Unknown
Maternal smoking during pregnancy	22	6	72
Maternal alcohol/other drug use during pregnancy	8	10	82
Prenatal care	29	3	68
Multiple birth (i.e. twins)	7	29	64
Premature birth (< 37 weeks gestational age)	20	23	57
Low birth weight	10	18	72

Table 9. Child Deaths by Risk Factors, SIDS, 2007.

While this compilation does not currently provide any statistically significant information, it is being collected and is expected to provide information in the future.

A required part of an infant death investigation includes a scene investigation by law enforcement. Law enforcement was known to have been notified in 82 deaths, with some investigation occurring in 80 deaths. In 9 deaths, law enforcement was not notified. In an additional 9 deaths, no information could be obtained to determine if law enforcement performed an investigation.

SUICIDE

Suicide accounted for **28** deaths of children in 2007.

The majority of children that committed suicide were between the ages of 15 and 17 years, with 20 (71%) of the deaths. There were 6 children between the ages of 10 and 14 years and most troubling, there were 2 children between the ages of 6 years and 9 years.

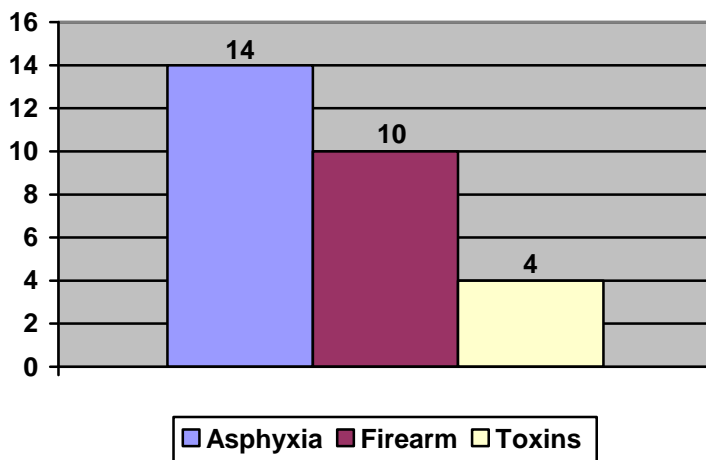
White children accounted for 20 deaths, 6 children were black, and 2 children did not have an identified race but were classified as Hispanic in ethnicity. Males accounted for 23 (82%) deaths and females for 5 deaths.

Means

Decedents were found hanging in 14 deaths, with firearms causing 10 deaths, and toxins leading to 4 deaths.

In deaths from asphyxia, weapons often were items found around the home, including belts and electrical cords.

In suicides by firearm, handguns were used in 4 deaths, rifles were used in 5 deaths (1 was an assault rifle), and 1 death was caused by a shotgun. In 4 deaths a parent was identified as the gun owner, in 4 deaths the decedent was identified as the owner, and in 2 deaths no information was available about ownership.



In 5 deaths there was no information about firearm storage. In 2 deaths the firearm was known to be properly secured. In 1 death the firearm was improperly secured at the child’s residence, and another was improperly secured but it was not at the residence of the child. In 1 death the decedent was known to have purchased the weapon – storage was not applicable.

Chart 31. Child Deaths by Means, Suicide, 2007.

Three adolescents died from overdoses of prescription medications. All 3 medications were prescribed to an adult in the household. There was 1 additional death from carbon monoxide poisoning from inhalation of motor vehicle exhaust.

Circumstances

The motivation that leads a person to take his or her own life is clearly evident in only a small number of cases. On occasion, there are identifiable preceding events or actions that can be determined to be substantial factors in a person's decision. However, examining the lives of those who commit suicide often shows complex circumstances or events that might contribute to a terminal decision.

Listed below are a number of potential factors or indicators of youth suicide:

- Acting strange the day of death
- Argument with friends, girlfriends or boyfriends, parents
- Behavioral issues
- Characterized as depressed (around time of death, no diagnosis of depression)
- Criminal/legal problems
- Mental health diagnosis (decedent)
- Mental health diagnosis (parent)
- Physical illness/disability
- Pregnancy
- Prior death of a loved one, especially by suicide
- Prior suicide attempt
- Problems at school (including fighting, being bullied, failing, etc)
- Relationship problems (including break-ups and other difficulties)
- Self mutilation ("cutting", etc)
- Sexual orientation
- Shame
- Substance abuse (decedent)
- Substance abuse (parent)
- Victim of abuse or neglect
- Unstable family/living situation
- Unknown/No reported indicators or problems

There were 4 adolescents who had previous attempts at suicide.

There were 10 decedents who were noted as having a mental health diagnosis and undergoing various levels of treatment from none to medication and therapy.

There was 1 death that was characterized as Russian Roulette. Since this activity involves firing a weapon at your own body, knowing that a bullet is in the firearm somewhere and that it is potentially lethal, it is considered intentional. Therefore it is listed as a suicide.

Communication

In some cases, the decedent indicates his or her intentions prior to committing suicide. In 2007, 9 (32%) decedents communicated their intentions either verbally or by electronic means. In more than 1 case, the person who received the communication was a peer who did not notify an adult. A suicide note was recovered in only 3 deaths.

UNDETERMINED

There were **25** deaths in which, after investigation, no manner of death could be determined. All but 3 deaths were infants.

In the 3 deaths of older children, a cause of death was determined (1 asphyxia and 2 toxin deaths). In these cases, while the cause of death was known, the circumstances surrounding the event did not provide enough information about intent to properly classify the deaths as accident or suicide.

In the infant deaths, neither a cause of death nor a manner of death was determined. In these deaths, no evidence of disease or illness was found, and the investigative information about the death again did not allow for a classifiable manner of death.

NEGLECT

No single definition exists for child neglect. Negligence can be defined as a failure to act, failure to attend to, or lack of due care. When discussing child neglect, the definition can be dependent on legal, societal or cultural standards. However, it is important to examine the contribution of neglect in child fatalities when trying to determine prevention strategies. The CFPT has modified existing neglect classifications so that we may better capture the role of neglect in child deaths. For a death to be classified as neglect, the following must be met:

1. The act/failure to act must be (at a minimum) contributory to the death:
2. The person who committed the act or who failed to act must have had care-giving responsibility for the child at the time of the fatal injury
3. The death could have been prevented if the caregiver had taken proper precautions and/or followed legal regulations meant to protect themselves and others.

A death can be classified as neglect when improper care, improper discipline, improper supervision, inappropriate or lack of medical care, inappropriate parental behavior and/or an unsafe physical environment contributed to the death. It is also important to note that neglect is not limited to accidental deaths; it can be a factor in other manners as well. Also, these numbers are likely higher, as circumstance information is not always available for review and other neglect may exist that is not related to the death.

There were at least 139* classifications for neglect. This number can further be broken down utilizing the CFPT categories:

Abandonment	3%
Improper care:	22%
Improper discipline	1%
Improper supervision	35%
Inappropriate parental behavior	17%
Unsafe physical environment	22%

**In some deaths, multiple types of neglect were found.*

NON-RESIDENT DEATHS

Children who did not have a declared residency in North Carolina but died in North Carolina accounted for **33** child deaths in 2007.

As this report is intended to address fatalities in North Carolina, the deaths in which the injury occurrence was in North Carolina are included here. Natural deaths are excluded.

There were 14 deaths due to external means of non-resident children in North Carolina, with onset of injury occurring in North Carolina. Motor vehicle crashes accounted for 8 accidental deaths and drowning accounted for 3 accidental deaths. There were 2 teenagers who were shot and killed in North Carolina, with both determined to be homicides. There was 1 suicide of a teen from out-of-state.

FETAL DEATHS

There were **9** fetal deaths certified by the OCME in 2007. The majority of these deaths (6) were from natural causes. The remaining 3 fetal deaths occurred as a result of maternal injuries sustained in motor vehicle crashes.

GLOSSARY

Accident (manner): The death was unintentional. There was no intent to cause injury to the decedent, or there was a lack of understanding that harm would result from actions.

Asphyxiation: Lack of oxygen to the body/brain.

Aspiration: Inhalation of food, liquid, or gastric contents into the lungs.

ATV: All-Terrain-Vehicle.

Child: From birth through the age of 17 years.

Child resident: under the age of 18 years living in North Carolina as noted on the death certificate.

Choking: Obstruction within the air passage (internal)

Co-sleeping: The child was placed to sleep on the same surface as at least one other individual who was also sleeping/intending to sleep.

Drowning: Water/liquid prevents the body from obtaining oxygen resulting in death (a form of asphyxiation).

Entrapment: Trapped in an air-tight enclosure.

Environmental deaths: Deaths that result from cataclysmic storms (i.e. winds and flooding from hurricanes), cave-ins, lightning and other natural environmental events.

Exposure: Result of hypothermia or hyperthermia.

Fetus: unborn human being.

Firearm: handgun, long gun, or modified weapon used to dispense projectiles.

Hanging: Compression/constriction of the neck structures, generally vessels, by a constricting band (noose) tightened from suspension by the victim's body weight.

Homicide (manner): Intentionally inflicted injury where death is a probable consequence of an action by another.

Infant: From birth to the first birthday.

Ligature strangulation: Compression/constriction of the neck structures by a constricting band tightened by an external force.

Means: The cause of death or mechanism responsible for causing the death.

Manner (of death): How the death occurred; circumstances.

Manual strangulation: Pressure of a human hand or limb on neck, compressing the neck structures.

Mechanical asphyxia: Pressure on the outside of the body that prevents respiration.

Natural (manner): Death can be attributed to internal processes such as illness or disease.

Non-Resident: Child's residence is listed outside of North Carolina, regardless of whether or not the onset of illness or injury occurred in NC.

Occupant (motor vehicle): rider in a vehicle.

Overlying: When a person lies on/over a child leading to a lack of oxygen or respiration.

Positional asphyxiation: When the decedent becomes trapped in a position that compromises respiration.

Sleep Environment: The location, surface and additional items located where the child sleeps.

Smothering: Mechanical obstruction or occlusion of the external airways.

Suicide (manner): Fatal injury was intentionally inflicted by the decedent.

Toxin: A prescription drug, illicit drug, chemical, or gas that is capable of causing fatal injury if toxic amount is ingested.

Undetermined (manner): Available information does not lead to a determination of manner.

Undetermined (means): Available information does not identify a cause of death.

Vehicle: A mode of transportation, usually motorized.