# Fatalities of Children in North Carolina 2005

# **Annual Report**

North Carolina Child Fatality Prevention Team North Carolina Office of the Chief Medical Examiner 2007



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# Introduction

The North Carolina Child Fatality Prevention System was established by the legislature in 1991 with the creation of the Child Fatality Task Force. In 1992, the North Carolina Child Fatality Prevention Team (State Team) was created. Local (county) Child Fatality Protection Teams (CFPTs) followed 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;
- (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 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

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. A certificate of

fetal death indicates that there was no birth; therefore, these deaths are not included in child fatality numbers. However, they are reported separately in 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 and 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

# State Center for Health Statistics Data

Data released from the State Center for Health Statistics (SCHS) are based solely 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.

# Differences among CFPT Data Sets

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 but was not reported to the OCME until 2007, it would be an additional 2005 death. The State Team also database underwent a transformation in 2006, collecting more detailed data so that deaths can be analyzed in greater detail. These data may not have been available or collected in previous years and may be reflected somewhat differently in newer reports.

# 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 2005 from the State Center can be found at www.schs.state.nc.us/SCHS/deaths/child/cd2005.html

# **Executive Summary: Child Fatalities in North Carolina in 2005**

The NC State Center for Health Statistics (SCHS) reported that there were **1614** deaths of residents of North Carolina under the age of 18 years in 2005. While 625 total child fatalities were investigated by the Office of the Chief Medical Examiner, 24 deaths were of out-of-state residents and 18 were fetal deaths. Therefore, of the deaths in 2005 that were reviewed by the CFPT, **583** were child residents of North Carolina (36% of resident child deaths).

Age Group	SCHS	CFPT	Percentage
Infant	1077	222	21%
1-4 years	141	80	57%
5-9 years	86	51	59%
10-14 years	111	63	57%
15-17 years	199	167	84%
Total	1614	583	36%

Table 1. Child Fatalities in North Carolina, 2005.

This report reflects only data obtained through review by the State Child Fatality Prevention Team (CFPT).

# Deaths by Manner and Age

#### *Infants*

The leading manner of death for infants was natural, 67% (148) of infant deaths. Of those deaths, 73% (108) were classified as Sudden Infant Death Syndrome (SIDS). The second leading manner of death was accident making up 21% (47) of the deaths, followed by homicide at 9% (19).

# Other Age Groups

Accidents were the leading manner of death for all age groups from 1 year through 17 years, making up 37% of the deaths. The other manners of death varied with age groups.

- For both the 1 to 4 years and 5 to 9 years age groups, the second leading manner of death was natural, accounting for 26% and 22% respectively. The third leading manner of death for these two age groups was homicide, accounting for 18% of deaths in the 1 to 4 years group and 8% of the deaths of the 5 to 9 years group.
- For the 10 to 14 years age group, natural causes and homicide were the second leading manners of death, each accounting for 13% of the deaths. The third leading manner of death for this age group was suicide, at 11%.
- Homicide was the second leading manner of death for the 15 to 17 years age group, with 20% of the deaths, followed by suicides with 13%.

# Accidental Deaths

There were **262** accidental deaths in 2005:

•	Vehicle	61 %
•	Asphyxiation	17 %
•	Drowning	6 %
•	Toxin	6 %
•	Firearm	1.5%

• All other means accounted for 1% or less (each) of the total number of accidental deaths

Vehicle-related deaths accounted for the greatest number of accidental deaths. Accidental asphyxiation made up a rather large proportion of accidental deaths considering all means categories; this category has increased by 35 percent in the past six years.

#### Homicides

There were **79** homicides in 2005:

Child Abuse Homicides 44%Other homicides 56%

Child Abuse Homicide victims were more often under the age of 4 years while other child homicide victims were more likely to be between the ages of 15 and 17 years.

# Natural Deaths

There were **197** natural deaths in 2005:

SIDS 55%Other 45%

The majority of SIDS deaths occurred at the age of 6 months and younger and peaked between the ages of 1 and 2 months. Other natural deaths were mainly due to respiratory tract infections, myocarditis, asthma and neurologic conditions.

#### Suicides

There were **28** suicides in 2005:

Firearm 61%Asphyxia 39%

The majority of decedents were white males. The cause of death in the majority of deaths was a gunshot wound while the remaining deaths were due to asphyxiation. Approximately 1/3 of the decedents had been diagnosed with a mental health disorder.

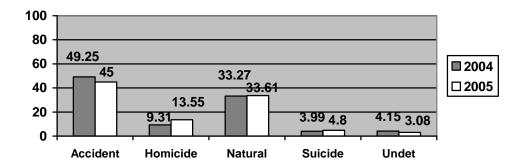


Figure 1. Percent Total Change from 2004 to 2005, NC Child Fatalities.

According to CFPT data, total accidental child fatalities decreased by 4.25% from 2004 to 2005. Homicides, however, increased by the same amount (4.25%) from 2004. Natural deaths reviewed by the CFPT remained steady at approximately 33% of the total child fatalities for both 2004 and 2005. Suicides increased by 1% and undetermined manner deaths decreased by 1 percent.

# **KEY DATA POINTS**

# **Accidental Asphyxiation:**

- The number of child deaths from accidental asphyxia has increased 35% over the past 6 years.
- The majority (82%) of children dying by accidental asphyxia were under the age of 1 year.
- The total number of deaths from accidental overlying in 2005 (23) was  $2\frac{1}{2}$  times the number seen in 2003.
- Sleep environment was a direct cause of or contributed to the death in 37 of the 45 accidental asphyxiation deaths.
  - O Approximately half (55%) of the decedents who died from asphyxia while co-sleeping were sleeping with only 1 adult.
- Other environmental factors such as soft sleep surface or access to dangerous items caused the deaths of several infants.

\*for a full report on accidental asphyxiation deaths of infants, please contact the CFPT.

# Accidental Drowning:

- The majority (71%) of drowning deaths occurred when children were unsupervised.
- Younger children were more likely to drown when falling into the water rather than participating in a water activity while older children were more likely to drown in natural bodies of water while swimming.

# Accidental Vehicle Deaths:

- The majority of motor vehicle occupant deaths were child passengers (66%).
- In child passenger deaths, the driver of the vehicle in which the decedent was an occupant was found to be at fault in 78% of the crashes.
- For teen drivers, the main factors in crashes were error (30%) or speed and error (22%).
- Teen passengers were least likely to wear seatbelts (39%), and only half (53%) of teen drivers were wearing seat belts.
- Only 1 of the 7 ATV riders was wearing a helmet. Notably, a state law that requires all ATV riders to wear helmets went into effect December 2005.

# Homicides:

• The number of homicides in 2005 (79) was the greatest number recorded since 2000. Both Child Abuse Homicides and "Other" homicides are increasing.

#### Suicides:

- The majority of firearm suicides involved handguns.
- Approximately 1/3 (36%) of the decedents had a diagnosed mental health disorder.

# **ACCIDENTAL DEATHS**

Accidental death was the leading manner of death for children ages 1 year to 17 years in North Carolina in 2005 with **262** deaths. Accidental deaths are those deaths that occur in which there was 1) no intent to harm self or another, or 2) there was no knowledge that a person would be seriously injured by their own or another's action. Accidental deaths may also be termed "unintentional." Accident is used in this report because that is the manner of death used on the death certificate.

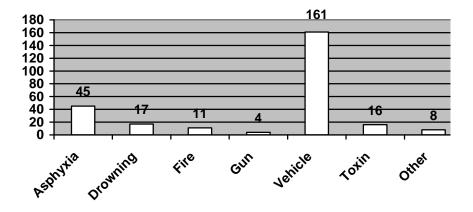


Figure 2. Accidental Deaths by Means, NC Children, 2005.

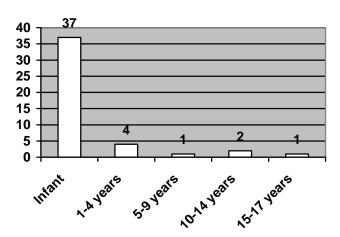
Examination of accidental deaths by means showed:

- The majority (61%) of accidental fatalities occurred in vehicle collisions.
- Asphyxiation accounted for 17% of accidental deaths.
- Drowning deaths accounted for slightly more than 6% of accidental deaths.
- Accidental toxicity (drugs, poisons, etc.) accounted for another 6% of deaths.
- Fire-related injuries comprised 4% of accidental deaths.
- Firearm injuries accounted for 1.5% of accidental deaths.
- All other accidental means accounted for 1% or less (each).

# **Accidental Asphyxiation Deaths**

Data indicate child deaths from accidental asphyxiation in North Carolina are on the rise. The peak number of **45** occurred in 2005, which was a 181% increase from 2000, when the number was just 16 deaths. Infants are most at risk for asphyxiation, with sleep practices being important factors in this type of death.

The majority of children were white at 49% (22), followed by black at 42% (19), and Asian at 2% (1). Three (7%) of the children were of Hispanic ethnicity (race was not identified).



The majority of children who died from accidental asphyxia in 2005 were under the age of 1 year (82%). Male children made up 60% (27) of the deaths, and females made up 40% (18) of the deaths.

Figure 3. Accidental Asphyxiation Deaths by Age, NC Children, 2005.

Asphyxiation deaths can be broken into categories by examining the circumstances of the death. In 2005, the circumstances were as follows:

Approximately half (51%) of the accidental asphyxiation deaths in 2005 were due to overlying. Positional asphyxia, which occurs when someone's position prevents them from breathing adequately, accounted for 18% of the deaths, aspiration or choking for 11% of the deaths and smothering for 9% of the deaths. There was one death from hanging, one death from ligature strangulation, 2 deaths from mechanical asphyxiation, and 1 death from entrapment.

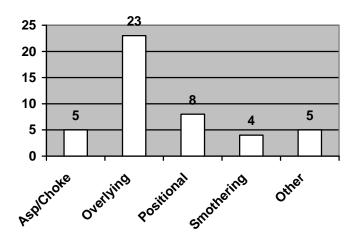


Figure 4. Accidental Asphyxia Deaths by Category, NC Children, 2005.

# Asphyxia and Sleep Practices & Environment

Of the 45 deaths, risky sleep practices or environment were found to be contributory, if not responsible for the death in 37 cases:

- Co-sleeping occurred in 89% (33) of the deaths.
  - o In 70% of the deaths, co-sleeping was the direct cause of death (overlying).
  - o The remaining deaths were positional (15%), smothering (12%) and 1 mechanical asphyxiation death.
  - o The majority of decedents (55%) were co-sleeping in beds, followed by 39% sleeping on couches.
  - o In 55% (18) of the deaths, the child was sleeping with only one adult, followed by both parents/adults and a sibling(s) at 24% (8).

- o In 15% (5) of the deaths, the co-sleeper was known to be under the influence of drugs and/or alcohol at the time of the death.
  - In 67% of the deaths, no information was available about the co-sleeper's drug or alcohol use.
- Sleep surface/environment (i.e. soft surface, access to strings, etc) was a factor in 4 deaths.

# Other Asphyxiation Deaths

There were 8 deaths in which sleep environment was not a factor in the death. These deaths included:

- Two deaths of children ages 2 years and 15 years who choked on food while eating.
- One death of a 14-year-old who died when a sand pile collapsed on him (entrapment).
- One death of a 5-year-old who died after being found underneath a forklift (mechanical).
- One death of a 13-year-old as a result of accidental hanging.
- Two deaths of 1-year-olds from aspiration (one of which aspirated cleaning solution when falling into a bucket, the other aspirated food).
- One death of an infant less than a month old who aspirated on formula when the infant was left alone to feed with a bottle propped up on a pillow.

# **Accidental Drowning Deaths**

In 2005, there were **17** child deaths due to drowning. The majority of deaths occurred in natural bodies of water. In North Carolina, the largest factor in childhood drowning deaths is lack of supervision.

Half (9) of the children who drowned were white. Four (24%) were black and 1 was identified as biracial. Four (22%) of the children were Hispanic, and 3 of those did not have an identified race. Sixteen decedents were male and 1 was female.

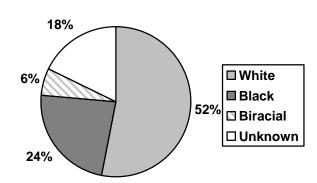


Figure 5. Accidental Drowning Deaths by Race, NC Children, 2005.

Five children were 4 years old or younger, five children were between the ages of 5 years and 9 years. Three children were between the ages of 10 years and 14 years. Four children were between the ages of 15 years and 17 years.

Three main activities resulted in drowning deaths:

#### Falls

o All of the children 6 years old and younger died after falling into water while walking, playing or during an unknown activity.

#### Swimming

o All of the teenagers aged 15 to 17 years died while swimming. A 12-year-old, a 7-year-old and an 8-year-old also died while swimming.

# Boating

o Two 14-year-olds died while boating (separate incidents).

There were several locations in which drowning occurred:

- The majority (59%) of deaths occurred in natural bodies of water:
  - o 3 children died in ponds
  - o 3 children died in the ocean
  - o 2 children died in rivers
  - o 2 died in lakes
- Six (35%) children drowned in pools and one child (6%) died in a hot tub:
  - o 5 of the pools had fencing, 1 fence was noted to be in disrepair
  - o 3 of the pools were in-ground, 2 were above-ground and one pool type was not identified.

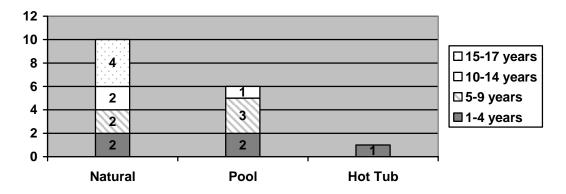


Figure 6. Accidental Drowning Deaths by Age and Location, NC Children, 2005.

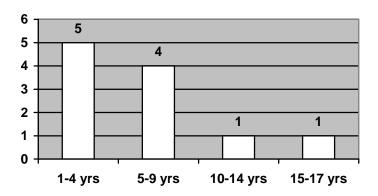
Younger children (9 years and under) drowned in pools/hot tub at only a slightly higher number than in natural bodies of water. Older children (10 years and older) almost exclusively drowned in natural bodies of water.

Supervision status and lack of safety precautions were the main factors in drowning deaths:

- The majority of decedents (71%) were not being supervised at the time of the drowning.
- Only 3 children, all teenagers, were known to be able to swim.
- No child was wearing a personal flotation device (PFD) at the time the drowning occurred.

# **Accidental Fire & Burn Deaths**

There were 10 child fatalities due to <u>8 residence fires</u> and 1 death due to burns from an accidental gasoline fire.



Five children were between the ages of 1 and 4 years, 4 children were between the ages of 5 and 9 years. One child was 13 years of age and 1 child was 17 years of age. Five children were black, 6 were white. Six children were male and 5 children were female.

Figure 7. Fire Deaths by Age, NC Children, 2005.

In residence fires, the structures were:

- Houses in 2 deaths.
- A mobile home in 1 death.
- Apartments in 3 deaths.
- In 2 deaths the structure information was unavailable.

The causes of fatal fires in 2005 were:

- Cooking in 3 deaths.
- Children playing with lighters in 2 deaths.
- A kerosene heater in 1 death.
- Faulty wiring in 1 death.
- A smoldering cigarette in 1 death.
- In 2 deaths the cause of the fire could not be determined.

Supervision and safety precautions:

- In 7 deaths there was no supervision or a lack of proper supervision at the time of the fire.
- In 3 of the 8 residential fires, the residence was known to have an operational smoke detector. In the remaining 5 fires records did not indicate if there was an operational smoke detector in the home.

# **Accidental Firearm Deaths**

Of the 61 gun deaths of children in North Carolina in 2005, **4** deaths were determined to be accidental in nature. Accidental firearm deaths generally are assigned this manner when the

child shot himself or herself unintentionally or the shooter was another child who most likely did not know the consequences of his or her actions.

All decedents were male. Three (3) children were white and 1 was black. The decedent ages were:

- 4 years
- 6 years
- 12 years
- 13 years

The circumstances of these deaths include:

- In 2 deaths the decedent was shot by another child while playing.
- In 2 deaths the wounds were accidentally self-inflicted.
  - o One death was a hunting accident.
  - o In one death the decedent found a weapon and accidentally shot himself.
- In 3 deaths an adult was present at the time of the fatal injury, but in no deaths were the children under immediate supervision; in 1 death no adult or supervisor was present.
- Three of the children were killed in their own homes; one child was outdoors.

The weapons were a handgun, a shotgun and 2 rifles. Gun storage safety laws were created to prevent these types of deaths. In 1 death the firearm was being used in a hunting scenario and gun storage laws did not apply. Gun storage information on the remaining cases include:

- In all 3 deaths the weapons were not properly stored and were easily accessible to children.
  - o In 2 deaths the owner or responsible party for the weapon was charged with failure to secure a firearm.
  - o In 1 death the child's caretakers were each charged with failure to secure a firearm and involuntary manslaughter.

#### **Vehicle-Related Accidental Deaths**

Vehicle-related death is the leading means of death of children over the age of 1 year in North Carolina. In 2005, **161** children died as the result of injuries sustained in vehicular crashes.

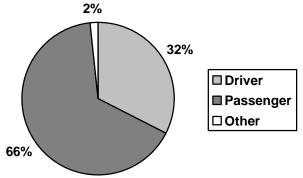
To better understand how our children are dying, the circumstances of the motor vehicle deaths were analyzed and broken down into categories:

• There were 112 deaths in which the decedent was the driver or a passenger in a automobile at the time of the fatal injury (occupant).

- 24 children died as a result of being struck by a motor vehicle while walking or standing near a street or in a driveway (pedestrian).
- There were 7 deaths resulting from ATV crashes.
- There were 7 children who were struck while riding a bicycle.
- 3 children were struck while driving a motorcycle/motorbike.
- 8 deaths were coded as other vehicle/transportation deaths.

# Motor Vehicle Occupant Deaths

Decedents were either a driver or passenger in a motor vehicle in **104** crashes resulting in **112** deaths:



- Decedents were drivers in 33% (37) of the crashes.
- Decedents were passengers in 65% (73) of the crashes.
- Two infants were born as a result of maternal trauma in a motor vehicle accident and died shortly after the crash.

Figure 8. Vehicle deaths by Decedent Position, NC Children, 2005.

# Decedent as Driver

There were 37 deaths in which the decedent was the driver of the vehicle:

- Half of the drivers (18) were 17 years old.
- 46% (17) were 16 years old.
- 1 driver was 15 years old.
- 1 driver was 8 years old (unsupervised on private road).

Male drivers accounted for 70% of fatalities, females for 30% of deaths. The majority of drivers were white 75% (27) and black drivers made up 22% (8). Two drivers were Hispanic.

#### Driver Seatbelt Use

In 51% (19) of the fatalities, the decedent (driver) was known to be wearing a seatbelt and in 43% (16) the driver was not wearing a seatbelt. In 2 deaths information was not available or seat belt use could not be determined.

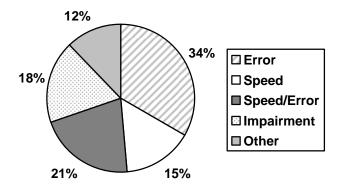


Figure 9. Crash Cause when Decedent was at Fault, NC Children, 2005.

# Driver Circumstance Information

Eighteen (49%) of the accidents were single-vehicle crashes and in 34 (92%) deaths the decedent was responsible for the crash.

In deaths in which the decedent was responsible:

- Error was present in all of the crashes, but speed was also a factor in 15, weather in 3 deaths and other factors in 2 deaths.
- The main contributing factor in an additional 7 crashes was impairment due to alcohol (excessive speed was also present in 4 of these deaths).

# Decedent as Passenger

There were **73** deaths of children who were passengers in motor vehicles when they sustained fatal injuries and additional 2 children who died after being born due to the trauma of the crash. Data here will address the 73 passengers.

Age Group	Count
< 1 year	4
1- 4 years	9
5-9 years	11
10-14 years	16
15-17 years	33
Total	73

Table 2. Passenger Deaths by Age Group, NC Children, 2005.

Teenagers between the ages of 15 and 17 years accounted for the majority (45%) of passenger deaths. The 10-14 years age group accounted for 22% of the deaths, the 5-9 years group for 15% of the deaths and 1-4 years for 12% of passenger deaths. Infants accounted for the least (5%) amount of deaths.

The majority of decedents were male (55%, 40) and 45% were female (33). White children accounted for 60% (44) of the passenger deaths, black children for 25% (18), 2 children were Native American, and 1 child was Asian. Eight children were of Hispanic ethnicity.

# Passenger Seatbelt Use

Decedents were wearing a seat restraint or a child restraint in 47% (34) of the crashes. Children between the ages of 1 and 4 years were most likely to be restrained (78%) while the 15-17 year age group passengers were least (39%) likely to be restrained. In 6 deaths the information was not available or it could not be determined whether or not the decedent was wearing a restraint.

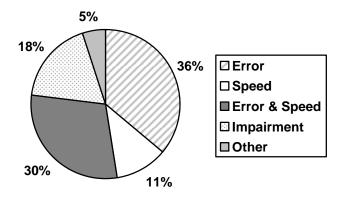


Figure 10. Passenger Deaths by Crash Cause, NC Children, 2005.

# Passenger Circumstance Information

In 39 (53%) deaths, the crash was a single vehicle accident. The driver of the *vehicle in which the decedent was a passenger* was found to be at fault in 56 (78%) of the deaths. In these deaths, a teenager (15 through 17 years) was at fault in 18 deaths.

Crash causes in these deaths included:

- Driver error (22)
- Speed (7)
- Error and speed (18)
- Impairment by drugs and/or alcohol or impairment (with additional factors) was present in 14 deaths.
  - o In 7 deaths, the supervisor of the decedent was the impaired driver.
    - In 4 of those deaths, the driver was a parent of the decedent.
    - In 2 deaths the driver was under the age of 21 years.
  - o Other (6)
  - o Unknown (9)

# **Driver vs. Passenger Information**

When examining occupant status of fatalities in motor vehicle crashes, 66% of the occupants were passengers, 33% were drivers.

Age Group	Driver	%	Passenger	%
< 1 year	0	0	4	5%
1- 4 years	0	0	9	12%
5-9 years	1	3%	11	15%
10-14 years	0	0	16	22%
15-17 years	36	97%	33	45%
Total	37	100%	73	100%

Table 3. Occupant Deaths by Position and by Age Group, NC Children, 2005.

The 15 to 17 year age group had the most passenger fatalities with 45%, followed by the 10-14 year group (22%) and the 5 to 9 year group (15%).

Race	Driver	%	Passenger	%
Asian	0	0	1	1%
Black	8	22%	18	25%
Native Am.	0	0	2	3%
White	27	73%	44	60%
Hispanic	2	5%	8	11%
Total	37	100%	73	100%

Table 4. Occupant Deaths by Position and by Race/Ethnicity, NC Children, 2005.

The majority of drivers were white (73%) as were the passengers (60%).

Sex	Driver	%	Passenger	%
Male	26	70%	40	55%
Female	11	30%	33	45%
Total	37	100%	73	100%

Table 5. Occupant Deaths by Position and Sex, NC Children, 2005.

Male drivers fatalities were more than double (70%) that of female driver fatalities.

Seat belt Use	Driver	%	Passenger	%
Yes	19	51%	34	47%
No	16	43%	33	45%
Unknown	2	5%	6	8%
Total	37	100%	73	100%

Table 6. Occupant Deaths by Position and Seatbelt Use, NC Children, 2005.

Of the 110 children who died in motor vehicle crashes, 48% were wearing seatbelts. Approximately 51% of drivers were wearing seatbelts and 47% of passengers were wearing seatbelts.

# Non-Occupant Deaths

There were 49 deaths of children who were not occupants of a vehicle.

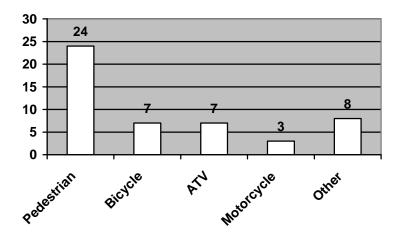


Figure 11. Non-Occupant Vehicle-Related Deaths, NC Children, 2005.

# <u>Pedestrian Deaths</u>

There were 24 (47% of non-occupant deaths) children struck by a motor vehicle in 2005.

Age Group	Count
1-4 years	10
5-9 years	3
10-14 years	7
15-17 years	4
Total	24

Table 7. Passenger Deaths by Age Group, NC Children, 2005.

Children 4 years and under accounted for 42% of the pedestrian deaths. Ten children were female and 14 were male. Ten children were black, 8 children were white, and 1 child was Native American. Five children did not have an identified race but were noted to be of Hispanic ethnicity.

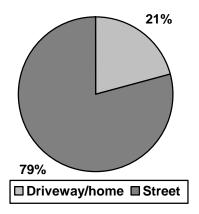


Figure 12. Pedestrian by Location of Injury, NC Children, 2005.

# Pedestrian Circumstance Information

Nineteen (79%) decedents were struck in a roadway or street. All of the children struck in the driveway or in front of their home were under the age of 5 years (5):

- Two children were struck by SUVs backing out of a driveway.
- Two children were struck by pickup trucks entering the driveway.
- One child was struck by a passenger car kicked out of gear by another child.

In 13 (54%) deaths, the driver of the vehicle was determined not to be at fault in the accident. In most cases, the child ran into the road or was standing/walking in or along the road when they were unavoidably hit by a vehicle. Of the 7 deaths in which the driver of the vehicle was determined to be at fault, 1 driver was impaired. In the remaining 4 deaths fault could not be determined or was unknown.

Supervision information was difficult to obtain in motor vehicle-pedestrian collisions as the information provided often comes from the DMV report and supervision status is not captured on the form. Additional information may be obtained from Medical Examiner reports or other sources. In the majority of deaths (58%) no information was available about supervision. An adult supervisor was known to be present in 5 deaths under the age of 15 years and there was no supervision of 3 children between the ages of 10 and 14 years.

# Bicycle Crash Deaths

There were **7** (17% of non-occupant deaths) children who died while riding bicycles that were struck by motor vehicles:

Age Group	Count
1- 4 years	0
5-9 years	1
10-14 years	3
15-17 years	3
Total	7

Table 8. Pedal cyclist Deaths by Age Group, NC Children, 2005.

Six of the children were male, one was female. Three of the children were black and 2 of the children were white. Two children were Hispanic.

# Bicycle Circumstance Information

All of the decedents were struck while riding in the roadway or trying to cross a roadway. In five deaths, the decedent was found to be at fault in the accident and in 2 deaths the driver of the vehicle that struck the decedent was found to be at fault.

When examining safety issues:

- No child was wearing a helmet.
- In 4 deaths the child was not being supervised and in 3 deaths no information was available about supervision.

# ATV Deaths

There were **7** (17% of non-occupant deaths) children who died as a result of ATV crashes in 2005:

- 2 children were between the ages of 1 and 4 years
- 1 child was 5 years of age
- 2 children were between the ages of 10 and 14 years
- 2 children were 15 years of age

Two of the children were female and 5 of the children were male. Six children were white and 1 child was black.

# ATV Circumstance Information

Four of the deaths occurred at a residence or on private property, the remaining 3 occurred on roads or highways. The four youngest children were passengers and the oldest 3 were drivers.

When examining safety issues:

- Only one child was known to be wearing a helmet (no helmet information was available in 1 death).
- In 3 deaths there was no supervision at the time of the crash
  - o In 1 death no information was available
  - o Adults were driving the ATV in 2 deaths

In addition to requiring helmet use the state's ATV law, which went into effect in December 2005, also requires adult supervision for young ATV riders.

# Motorcycle Deaths

There were **3** (7% of non-occupant deaths) deaths of children who were driving motorcycles. All of the children were white males ages 8 years, 13 years and 15 years.

Motorcycles in these cases included:

- 2 dirt bikes (classified as motorcycles to be used off road)
- 1 small motorcycle

In 2 deaths the decedent drove into the path of an automobile on a road and in 1 death the decedent struck another ATV.

When examining safety issues:

- Only one child was wearing a helmet.
- No information was available about supervision for any of these deaths.

# Other

Other vehicular deaths don't fit into the above categories for 1 of 2 reasons: 1) the vehicle is not an automobile, or 2) the legal regulations that apply to motor vehicles would not apply in these instances. There were 8 deaths that fell into this category.

- There were 3 deaths of teenage males (15 years, 16 years and 17 years) who were walking on the train tracks when they were struck by a train.
- There were 2 children who were driving go-carts.
- There 12-year-old child who was riding a horse near a road (while supervised) when the horse darted into the road into the path of an oncoming vehicle.
- There was 1 death of a 6-year-old child who had sustained injuries years earlier when he was struck by a riding lawn mower.
- There was one death of a 13-year-old male struck riding his skateboard.

# Legal Ramifications

Charges were known to have been filed in **35** of all of the motor vehicle crash deaths and charges were pending in another 7 cases. In 17 cases, more than one charge was filed. Charges filed varied from regular traffic infractions to 2<sup>nd</sup> degree murder.

#### **Accidental Toxin Deaths**

Accidental deaths from toxins include accidental drug toxicity, unintentional ingestion of chemicals, or exposure to lethal chemicals/gases. There were **16** deaths due to toxins in 2005 (2 deaths were related). The majority of these were of decedents who were misusing prescription drugs for recreational purposes.

Most children (14) were between the ages of 15 and 17 years. One child was 14 years and one child was 2 years old. Fifteen of the children were white and one child was black. Males accounted for 13 deaths and females for 3 deaths.

Decedents were most likely (56%) to be at home when they took a fatal dose of a toxin. In 4 deaths the decedent had taken drugs at a residence other than their own and in 3 deaths it was not known or information was not available as to where the decedents were at the time they took the toxin(s).

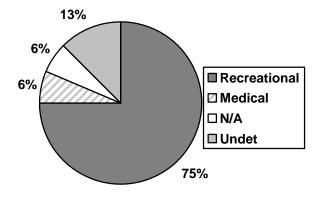


Figure 13. Decedent Drug Use Activity, NC Children, 2005.

The majority of decedents were using a toxin recreationally which resulted in their death:

- In 12 deaths the decedent was recreationally using a toxin (or toxins) when they took a lethal amount.
- In 1 death the decedent was taking the prescribed drug for medical reasons.
- In 1 death the child may have taken a drug not knowing that it was a drug.
- In 2 deaths the circumstances were unclear and it could not be determined why the decedent was taking the drug(s) from the information available.

Ten of the decedents had a history of prior drug use and in 3 deaths there was a family history of drug use.

# **Toxins**

In 12 deaths the fatal toxin(s) was either a prescription drug or a mix of prescription and over the counter (OTC) drugs. In 3 deaths the toxins were combined prescription and illicit drugs. In 1 death the decedent used a household chemical (inhalant) to get high.

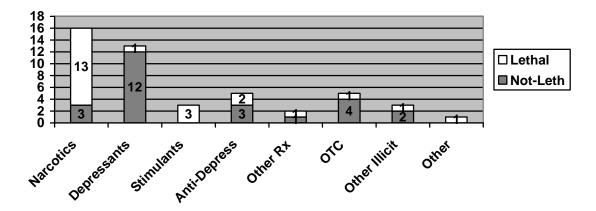


Figure 14. Positive Toxicology Findings in Accidental Toxin Deaths, NC Children, 2005.

As illustrated in Figure 14, very few decedents tested positive for only 1 toxin, with only 6 deaths (38%) resulting from a single toxin. In the 16 accidental toxin deaths, 48 toxins were detected by toxicologic examination. These toxins included:

- Narcotics (methadone, fentanyl, oxycodone, morphine, etc.)
- CNS depressants (benzodiazepines, alprazolam, and barbiturates etc.)
- Stimulants (i.e., prescription methamphetamine and illicit cocaine)
- Antidepressants (i.e., sertraline)
- Inhalants
- Hallucinogens
- Other prescription drugs
- OTC drugs

In 5 deaths (31%) more than 1 drug was found to be present in a lethal amount and in another 5 deaths (31%) the decedent had 1 toxin present in a lethal amount but other drugs were detected in non-lethal concentrations. Methadone was found in be lethal in 6 deaths, and the sole lethal drug in 3 of those deaths.

#### Access to Toxins

Children and adolescents can gain access to legal and illegal drugs in a variety of ways from a variety of locations:

- In 3 deaths the lethal toxin was in/around the home, but not prescribed for the decedent.
- In 1 death the decedent purchased the toxin at the store.
- In 1 death the drug was a prescription for the decedent for medical purposes.
- In 2 deaths the decedent had taken prescription drugs that were prescribed to him or her as well as a prescription drug prescribed to someone else.
- In 1 death the decedent took a drug prescribed for someone else.
- In 4 deaths the decedent obtained the drug from a friend or acquaintance.
- In 4 deaths it was not determined how or where the child obtained the drug.

# **Other Accidental Deaths**

There were 8 deaths that occurred that can be classified as "other accident" in 2005:

- Three deaths of infants occurred as a result of medical treatment (surgical complications) or drug reaction.
- An infant and a 7-year-old died from injuries sustained in falls (separate incidents).
- A 2-year-old died when he pulled a heavy object over on himself.
- A 17-year-old male accidentally stabbed himself during an altercation.
- A 17-year-old male drowned in a ditch while trying to cross a flooded street after heavy rain.

# **HOMICIDE**

There were **79** homicides in 2005. This is the greatest number of homicides recorded since 2000. Both Child Abuse Homicides (CAH) and other homicides have been on the rise since 2002. Other homicides increased by 76% from 2004 to 2005.

#### Child Abuse Homicides

There were **35** homicides determined to be Child Abuse Homicides in 2005. The State Team defines child abuse homicide as the death of a child that occurs from a physical injury and/or severe neglect that is perpetrated by the person in charge of the child's well-being at the time of the fatal injury. Other homicides are those in which the decedent was killed by another person, but not a person responsible for taking care of the child at the time of the death.

Victims of child abuse homicide were:

- Under the age of 4 years in 89% (31) of the deaths.
  - o Infants accounted for half (51%) of all child abuse homicides of NC residents in 2005.
- Between the ages of 5 and 14 years of age in 2 deaths.
- Between the ages of 15 and 17 years of age in 2 deaths.

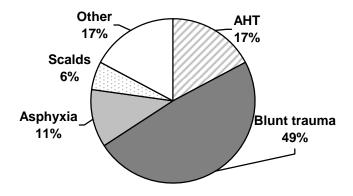


Figure 15. Fatal Injuries in North Carolina Child Abuse Homicides, 2005.

Causes of death vary, with 66% of victims dying from blunt trauma (6 of those from abusive head trauma/AHT). Asphyxiation was the cause of death in 4 fatalities. Scalding, lack of newborn care and exposure resulted in 2 fatalities per cause of death. One child died from stab wounds and 1 additional child died from drowning. In addition, half (18) of the children showed evidence of abuse or a suspect admitted to abusing the child on more than 1 occasion.

Those suspected of inflicting the fatal injuries in child abuse homicides were either parents or individuals responsible for the child's well-being at the time of the injury:

# Suspected Perpetrators\*

A biological parent was the suspected perpetrator in 43% (15) of the child abuse homicide deaths:

- Mothers (7) and fathers (7) were equally suspected as perpetrators of fatal injuries, with one case in which both a mother and father were charged.
- In 11% (4) of the deaths the stepfather alone was suspected.
- In 23% (8) of the deaths the mother's boyfriend was charged with the murder, and in 2 of these deaths the mothers were also charged with lesser crimes related to the death. In 1 death the mother and her boyfriend were both charged as primary offenders.
- In 3 deaths the suspect was a male caretaker not related to the decedent, in 1 death the babysitter was suspected, and in 1 death a family friend was suspected.
- No one was charged in 2 of the deaths, as primary suspects were not identified.

#### Other Homicides

There were 44 homicides of children that were not due to child abuse. Teenagers between the ages of 15 and 17 years accounted for 73% (32) of the homicides.

Firearms were used in 89% (39) of the deaths, sharp instruments were used in 4 deaths and 1 homicide was due to drowning. Circumstance information varied greatly but included: arguments, gang activity, perpetrating a crime, "fooling around" with a weapon, domestic violence, innocent bystander and in some deaths the circumstance information was not available or not known.

# Suspected Perpetrators\*

The majority of suspects (51%) were between the ages of 15 and 21 years. The suspect-victim relationships were:

- In at least 36% (16) of the deaths the decedent knew the suspect.
- Four decedents did not know the suspect before the death.
- In 4 deaths the suspect was not identified.
- In the remaining deaths (20, 45%) it was not known or information was not available as to whether or not the decedent was acquainted with the suspect.

\*NOTE: Suspected perpetrators are labeled as such as they have been charged with a crime but are presumed innocent until found guilty in a court of law. The CFPT is tracking legal outcomes and the State Team will report these findings at a later date.

# NATURAL DEATHS

The majority of natural child deaths in North Carolina are not reported to the Office of the Chief Medical Examiner as they result from known illness or disease. However, sudden, unexpected deaths of children in apparent good health must be reported to the medical examiner. Most of these deaths will require an autopsy, with investigation, to determine the cause and manner of death. In 2005, there were 208 deaths certified as natural manner. One hundred and eight of these were finalized as Sudden Infant Death Syndrome and are discussed later in this section. Another 12 deaths were fetal deaths and are discussed at the end of this report.

Age Group	Total
< 1 year	36
1-4 years	18
5-9 years	11
10-14 years	7
15-17 years	5
Total	77

Table 9. Sudden, Unexpected Deaths of Children (excluding fetal deaths and SIDS) by Age Group, NC Children, 2005

The majority of children who died from sudden, unexpected death (excluding SIDS and fetal deaths were under the age of 1 year, accounting for 47% of these natural deaths. In fact, as children got older, sudden unexpected death dramatically decreased.

# Natural Causes of Death

Of the 77 remaining deaths, 69 (90%) were autopsied. In some deaths there may be overlap such as when congenital abnormalities place a child at risk for pulmonary infections or may involve serious heart defects that cause death. Deaths were categorized here by the main factor contributing to the child's death. Eight deaths were found to have no external cause of death and were certified as natural in manner with unknown means. The top 4 (as 2 causes had the same number) causes of death were:

•	Upper/lower respiratory tract infections	15
•	Myocarditis	11
•	Asthma	5
•	Neurologic conditions	5

Other natural causes of death varied and included: aspiration, complications of prematurity, malignancy, meningitis, congenital heart disease, other congenital conditions, seizures, complications of cerebral palsy, sepsis/systemic viral illness, gastrointestinal infection, and cardiomyopathy.

# **Sudden Infant Death Syndrome**

Sudden Infant Death Syndrome (SIDS) is the sudden and unexpected death of an infant (a child under the age of 1 year). This cause of death should only be assigned when a complete autopsy, complete scene investigation and a complete review of clinical history cannot show any other cause of death. In North Carolina, the manner is determined to be natural. There were **108** deaths certified as SIDS in 2005.

In North Carolina, most SIDS victims were less than 6 months old:

- SIDS deaths peaked between 1 and 2 months of age with 60% of all SIDS deaths occurring between birth and 3 months.
- 98% (104) of SIDS deaths occur at the age of six months or younger.

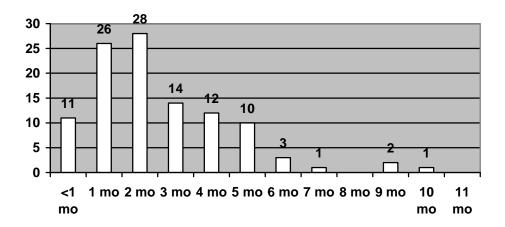


Figure 16. SIDS deaths by Age, North Carolina Residents, 2005.

# **Demographics**

Females accounted for 41% (44) of the SIDS fatalities and males for 59% of deaths. White children accounted for 56% (61) of the deaths and black children for 33% (36). White males accounted for 32% (35) of the deaths overall for a single race and sex. Seven (6%) of the children were of Hispanic ethnicity.

# Location of Death

The majority (92%) of children died at home while 2 died at licensed day care centers and 7 deaths occurred at residences other than the decedent's home residence.

#### SIDS & Risk Factors

While the cause of SIDS is not known, "risk factors" (increase the risk for SIDS) have been identified. These include tummy/side sleeping, soft sleep surface/loose bedding, smoking, cosleeping, preterm and low birth weights. Risk factor information in SIDS deaths for North Carolina was:

# **Bedding:**

- In 50% (54) of the deaths, bedding information was not available or not known.
- In 23% (25) of the deaths, blankets were present and in 16% (17) of the deaths a comforter was present with the decedent at the time of the death.
- Pillows were present in another 23% (25) of the deaths.
- In a small number of deaths (6), stuffed animals were in the sleeping area with the decedent.

# **Co-sleeping & Sleep Surface:**

- In 52% (56) of the deaths, the decedent was co-sleeping with at least one other individual at the time of the death.
  - o Of the known co-sleepers, 30% (17) were sleeping with both parents at the time of the death.
  - o The same number of children (17) were sleeping with the mother only.
  - o Infants were sleeping with at least 1 parent and 1 sibling in 21% (12) of the deaths.
- Infants were sleeping in cribs in 20% of the deaths.
- The majority of infants were sleeping on sleep surfaces not intended for infant sleep
  - o Almost half (48%) of infants were sleeping in adult beds.
  - o Twelve were sleeping on couches.
  - o Four were sleeping in car seats.
  - o In 8 deaths (7%) the sleep surface was described as "other".
  - o In 9 deaths (8%) information about the sleep surface was not available.

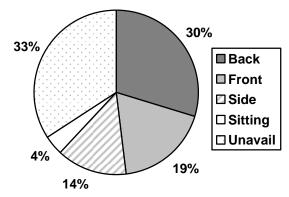


Figure 17. SIDS Deaths and Infant body placement, NC Children, 2005.

# **Infant Position:**

- Slightly less than 1/3 (30%) of infants were known to be placed on their backs to sleep, the recommended position for infant sleep.
- In 1/3 (33%) of the deaths, no information was available about the sleep position of the infant.

# **Smoker in the home:**

- In 68% (74) of the deaths, it was not known if there was a smoker present in the home.
- In 18% (20) of the deaths a smoker was present in the home
- 12% (13) of the homes did not have a smoker living in the residence

# **Pregnancy and Birth Risks:**

- Approximately 28% (30) of the infants who died from SIDS were born prematurely.
   14 of which were low birth weight.
- In 6% (6) of the deaths, the decedent was one product of a multiple birth.
- Mothers were known to have smoked during pregnancy in 9% (10) of the deaths.

# **SUICIDE**

In 2005, **28** children committed suicide in North Carolina. Seven of the children were between the ages of 10 and 14 years and 21 were between the ages of 15 years and 17 years.

# Suicide Circumstances

Circumstances surrounding suicides include location of occurrence, decedent and family history and weapon use and access:

- The majority (24) of suicides took place at the decedent's residence.
- Ten (36%) of the decedents had been diagnosed with a mental illness at some time prior to their suicide.
- As in prior years, the mechanisms adolescents used to commit suicide were firearms and asphyxia.

#### Firearms

Firearms were used in 61% (17) of the suicides:

- Males accounted for 82% (14) of the suicides by firearms, and 3 decedents were female. Children between the age of 15 years and 17 years accounted for 76% (13) of the deaths and 4 deaths were children ages 10 to 14 years.
- White children made up 76% (13) of the deaths, 3 children were black, and 1 child did not have an identified race but was identified as Hispanic ethnicity.

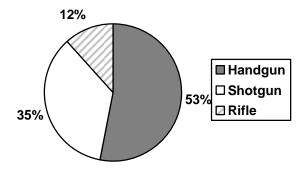


Figure 18. Suicides by Weapon/Mechanism, NC Children, 2005.

- Handguns were used in 53% (9) of the deaths.
- Shotguns were used in 6 deaths and rifles were used in 2 deaths.
- In 47% of the deaths (8) the weapon belonged to a parent of the decedent.
- In 2 deaths the decedent was the owner of the weapon.
- In 5 deaths no information was available on the ownership of the gun or no one was aware how the decedent obtained the gun.

# Gun storage information was as follows:

- In 1/3 of the cases (6), the storage information was not available in records or not known.
- In 4 deaths the decedent was the owner of the gun (2) or storage was not applicable (2).
- In 2 deaths the guns were known to have been properly stored.
- In 5 deaths the firearm was known to be improperly stored.
- In only 1 of these deaths were charges brought against the owner of a firearm for improper storage.

# Asphyxia

Eleven (11) of the suicides were a result of asphyxia by hanging.

- Nooses included items found around the home such as electrical cords or belts.
- Eight (73%) of the decedents were female and 3 were male
- Teens aged 15 to 17 years accounted for 8 deaths (73%) and teens aged 10-14 years accounted for 3 deaths.
- White children accounted for 6 (55%) asphyxiation suicides, black children for 4 deaths and 1 child was identified as Hispanic ethnicity.

# **UNDETERMINED MANNER**

There were **18** deaths of children in 2005 for which a manner of death could not be determined.

The majority of deaths that fell into this category were between the ages of 1 and 4 years (7), followed by infants (6), 5- to 9-year-olds (3) and 15- to 17-year-olds (2).

Deaths that were undetermined in manner included:

- Deaths with an identified cause of death but with a manner or intent that could not be determined from available investigative information:
  - o 1 death from a toxin
  - o 2 fire-related deaths
  - o 1 gun death
  - o 1 death by drowning
  - o 1 death by other means
- Deaths in which the cause of death was also undetermined (12) after an autopsy and investigation could not provide information that could positively identify a particular physical means of death.

# **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. A consensus definition of child neglect does not exist. 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 criterion 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 deaths as well. Also, the numbers are undercounted, since complete circumstance information is not always available for review. Other neglect may exist that is not related to the death.

Upon careful examination of the child fatalities in 2005, the CFPT concluded that **101** (17%) of the 583 deaths of the cases reviewed met at least 1 category for neglect classification. These deaths included:

•	Abandoned infants	7
•	Drowning	7
•	Firearm	13
•	Asphyxia	17
•	Motor vehicle	23
•	Blunt trauma	11
•	Exposure	2
•	Fire	7
•	Scald	2
•	Other	6

# **NON-RESIDENT DEATHS**

There were **24** deaths in North Carolina in 2005 of children who were residents of other states or countries.

Of these, 16 deaths were accidents, 5 deaths were natural and 3 deaths were homicides. Ages ranged from infants (6), 1-4 years (5), 5-9 years (4), 10-14 years (2), 15-17 years (7).

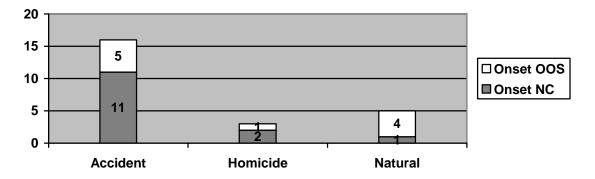


Figure 19. Location of Onset, Child Deaths in NC of Non-residents, 2005.

#### Accident

There were 16 accidental deaths:

- Motor vehicle crashes accounted for 12 child deaths.
  - In 7 deaths, the crash occurred in North Carolina. Five of the crashes occurred
    in nearby states and the child was brought to NC for treatment and they
    subsequently died.
- Asphyxiation was the cause in 1 death (onset in NC).
- Drowning was the means in 1 death (onset in NC).
- One child died as a result of a gunshot wound (onset in NC).
- Injuries sustained in a fall accounted for 1 death (onset in NC).

# Natural

There were 5 natural deaths:

- SIDS was the cause of death for 3 infants.
  - Two of these deaths occurred in bordering states and the decedent was brought to a hospital in North Carolina where the child was pronounced dead.
- One child had a terminal illness and was visiting in North Carolina.
- One child had myocarditis with a fatal event while visiting in North Carolina.

# Homicide

Three non-resident children died as a result of homicide:

- In 2 deaths, the children appeared to be living in North Carolina, but had a different state listed as their residence on the death certificate.
  - One death was a result of child abuse.
  - o One death a result of domestic violence.
- One child died from starvation (child abuse) which occurred over a period of time and in several states.

# **FETAL DEATHS**

Fetal deaths are not systematically reported to or investigated by the medical examiner system. Eighteen fetal deaths were investigated in 2005 and 2 of those were listed as either non-resident or no known residence. Of the 16 residents, 11 were determined to have been Intrauterine Fetal Demise. The remaining 5 deaths were due to:

Motor vehicle accidents
Other accidental means
Natural
Undetermined/Unknown
1

# **GLOSSARY**

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

**Asphyxiation:** Lack of oxygen to the body/brain (for our purposes this will only refer to deaths from lack of oxygen)

**Aspiration:** Inhalation or food/liquid or gastric contents

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/intended on sleeping

**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 young of a human being

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

**Hanging:** Compression/constriction of the neck structures by a constricting band tightened under the victims body weight (noose)

**Homicide** (manner): Intentionally inflicted injury that is fatal or death is a known consequence of an action by another

**Infant:** From birth to the 1<sup>st</sup> birthday

**Ligature strangulation:** Compression/constriction of the neck structures by a constricting band tightened by some other force

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

Manner (of death): How the death occurred

**Manual strangulation:** Pressure of a human hand/limb on neck – compressing 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): the decedent was riding in a vehicle

**Overlying:** When a person lies on a child leading to in lack of oxygen or respiration

**Positional asphyxiation:** When the decedent becomes trapped in a position and respiration is

compromised

**Sleep Environment:** The location, surface and additional items located where the child was sleeping

**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, gas that is capable of causing fatal injury

**Undetermined (manner):** Available information did not lead to a conclusion of manner

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

Vehicle: A mode of transportation, usually motorized