Data
Statistics
Information
Graphs
Tables
Charts
Trends

Davidson County Child Death Report

Data for 2011

Metro Public Health Department of Nashville/Davidson County

Davidson County Child Death Review Team Annual Report
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Table of Contents

The Child Death Review Process

When a child dies:

- The birth and death certificates are sent from the Tennessee Department of Health (TDOH) to the Metro Public Health Department (MPHD) Child Death Review Team data coordinator. All child deaths are reviewed with the exception of children that are not residents of Davidson County, children who died out of state, born less than 22 weeks of gestation, or weigh less than 500 grams. Copies of the birth and death records are sent to the team members.
- Case review for a child's death may happen immediately after the receipt of birth/death certificates or may take months depending on the timeliness of receiving additional records. Additional records usually come from the Metro Police Department (MPD) and the Davidson County Medical Examiners (ME) Office.
- All team members search their agency or organization files and bring either the records or case summaries to team meetings. Available records are also requested from programs within MPHD.
- At the team's monthly meetings, each case is reviewed until a consensus is reached to close the case. A case remains under review (sometimes 2-3 months) until all information relating to the case is obtained. This information may include autopsy results, information provided by the police, or hospital medical records.
- The team reviews available information and comes to a consensus on whether the child death was preventable. A preventable death is defined as one in which some action or actions from individuals or systems would have alleviated the circumstances that led to that particular child death.
- The TDOH data collection form is completed and the data coordinator enters the information obtained from the meetings into a statewide database managed by the National Maternal and Child Health (MCH) Center for Child Death Review.
- After all cases are reviewed for the calendar year, an annual report is produced. The purpose of the report is to share findings and assist in the development of data-driven recommendations for the prevention of child deaths.

Preface

The Davidson County Child Death Review Team (CDRT) reviewed seventy-nine infant and child deaths (ages 0 to 17) for the calendar year 2011, to better understand how and why these children died. Case review for children who died during the 2011 calendar year began in July 2011 and ended December 2012. The CDRT is empowered by a Mayoral Executive Order to conduct reviews to achieve the following goals:

1. Identify factors that put a child at risk of injury or death.
2. Share information among agencies that provide services to children and families or that investigate child deaths.
3. Improve participating agencies' investigations of unexpected/unexplained child deaths.
4. Improve existing services and service delivery systems and identify areas in the community that require additional services.
5. Identify trends relevant to child injuries and deaths.
6. Educate the public about the causes of child injuries and deaths, while also defining the public's role in helping to prevent such tragedies.

This report presents key findings and recommendations from the CDRT designed to help prevent future deaths of children in Davidson County.

Recommendations

Each year, the CDRT makes recommendations for policy, infrastructure, and service changes based on the results of child death investigations in an effort to prevent future childhood mortality. Recommendations are reviewed by the TDOH State Child Fatality Team and other local jurisdictions for feasibility and to ensure duplicate recommendations are not made. Recommendations are included in the TDOH State Child Fatality Report and appropriate actions are taken to carry out recommendations. In the future, the Davidson County CDRT hopes to move toward a more action oriented approach and engage in the the implementation of local recommendations. Based on results for 2011 deaths, the Davidson County CDRT made the following recommendations:

1. Babies born to women who are incarcerated should receive an automatic referral to a home visiting program.
2. There is a need to develop a standard protocol for screening pregnant women for drug abuse.
3. The protocol for investigating infant deaths should be amended to eliminate sudden infant death syndrome (SIDS) classification from the death certificate.[i]
4. Provide education to parents about what to look for when seeking childcare. Educate parents on the pros and cons of leaving children in the care of relatives and seeking alternative quality childcare.
5. Better coordination of information among agencies to identify potential cause of death is needed.
6. Examine and amend hospital and clinic protocols for home visiting.
7. Remind all hospitals about the protocols for the Department of Children Services (DCS) referrals and ensure the protocols are being followed.

[i] In previous years, SIDS classification was used to describe the sudden, unexplained death of any infant. As more research has been done to investigate potential causes of SIDS, an unsafe sleep environment has been identified as an underlying factor in many SIDS cases.
Today, SIDS is defined as the sudden death of an infant less than 1 year of age that cannot be explained after a thorough investigation is conducted, including a complete autopsy, examination of the death scene, and review of the clinical history. SIDS classification is used nationally and locally, and is one of the leading causes of death among infants (see pg. 6). However; with improved data (crime scene investigations, autopsy examinations, and clinical history) the CDRT hopes more specific causes of death, such as suffocation and overlaying, are used on the death certificate to identify deaths that have been traditionally classified as SIDS.

Executive Summary

The CDRT reviewed the deaths of seventy-nine children, residing in Davidson County, who died in 2011.

Demographics

- 57 deaths (72.2%) occurred among children less than 1 year of age.
- 7 deaths (8.9%) occurred among children aged 1 to 4 years.
- 6 deaths (7.6 %) occurred among children aged 15 to 17 years.
- 47 deaths (59.5%) occurred among non-Hispanic blacks.
- 23 deaths (29.1%) occurred among non-Hispanic whites.
- 3 deaths (3.8%) occurred among Hispanics.
- 46 deaths (58.2%) occurred among males.

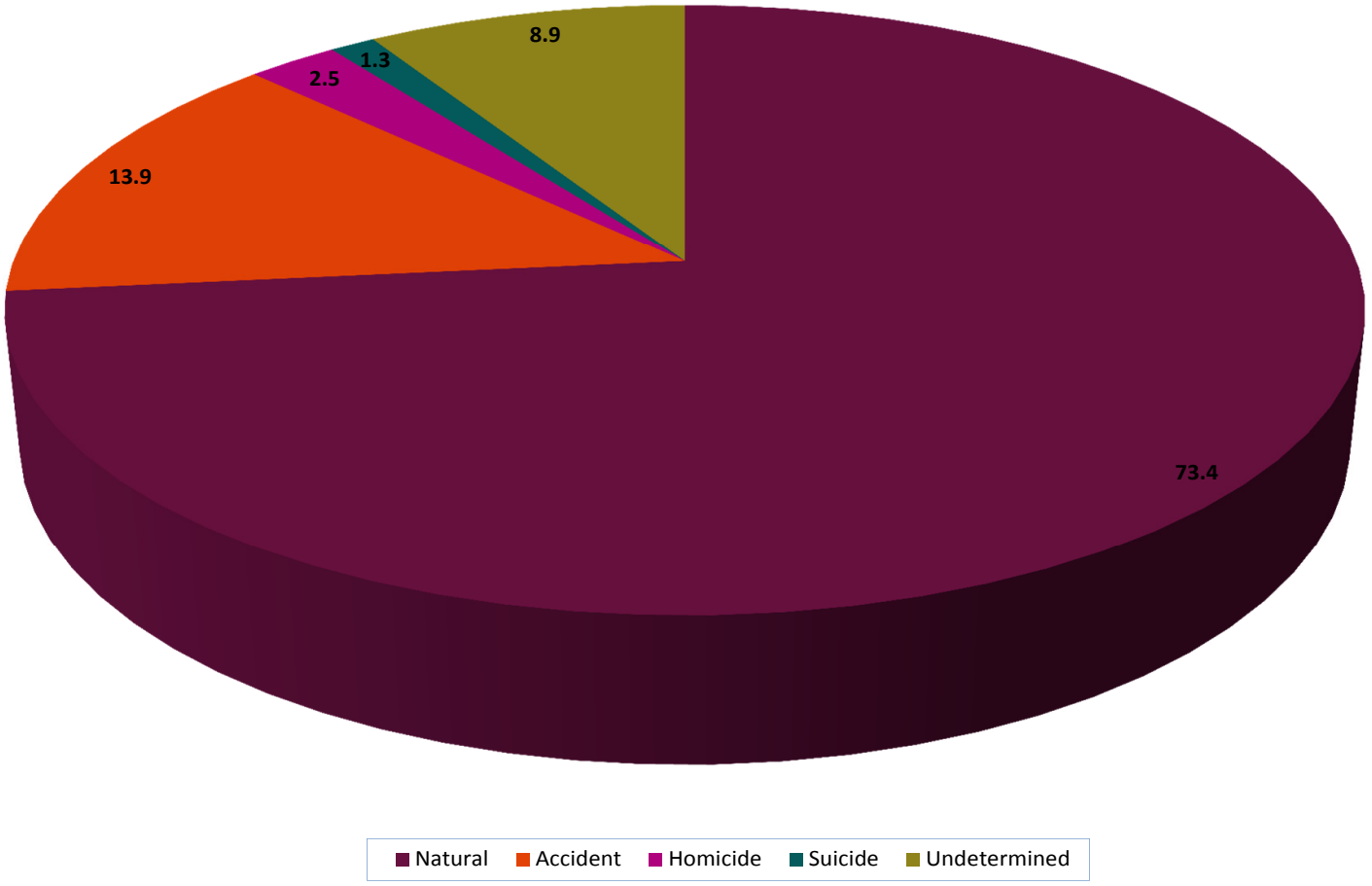
Manner of Death[a]

- 58 deaths (73.4%) were due to natural causes.
- 11 deaths (13.9%) were due to unintentional injuries.
- 1 death (1.3%) was due to suicide.
- 2 deaths (2.5%) were due to homicide.
- 7 deaths (8.9%) were due to undetermined causes.

72.2% of child deaths occurred to children less than one year of age and 59.5% of deaths occurred to non-Hispanic black children.

[a] Undetermined deaths are defined as any death for which cause is unknown after rigorous autopsy and crime scene investigation. Many undetermined deaths (between 80-100%) are related to the sleep environment in Davidson County. For example, all 7 undetermined deaths in 2011 were sleep-related. A specific section on sleep related deaths is included in the report.

Figure 1: Percentage of Reviewed Child Deaths by Manner, Davidson County, TN, 2011



Preventability of Deaths

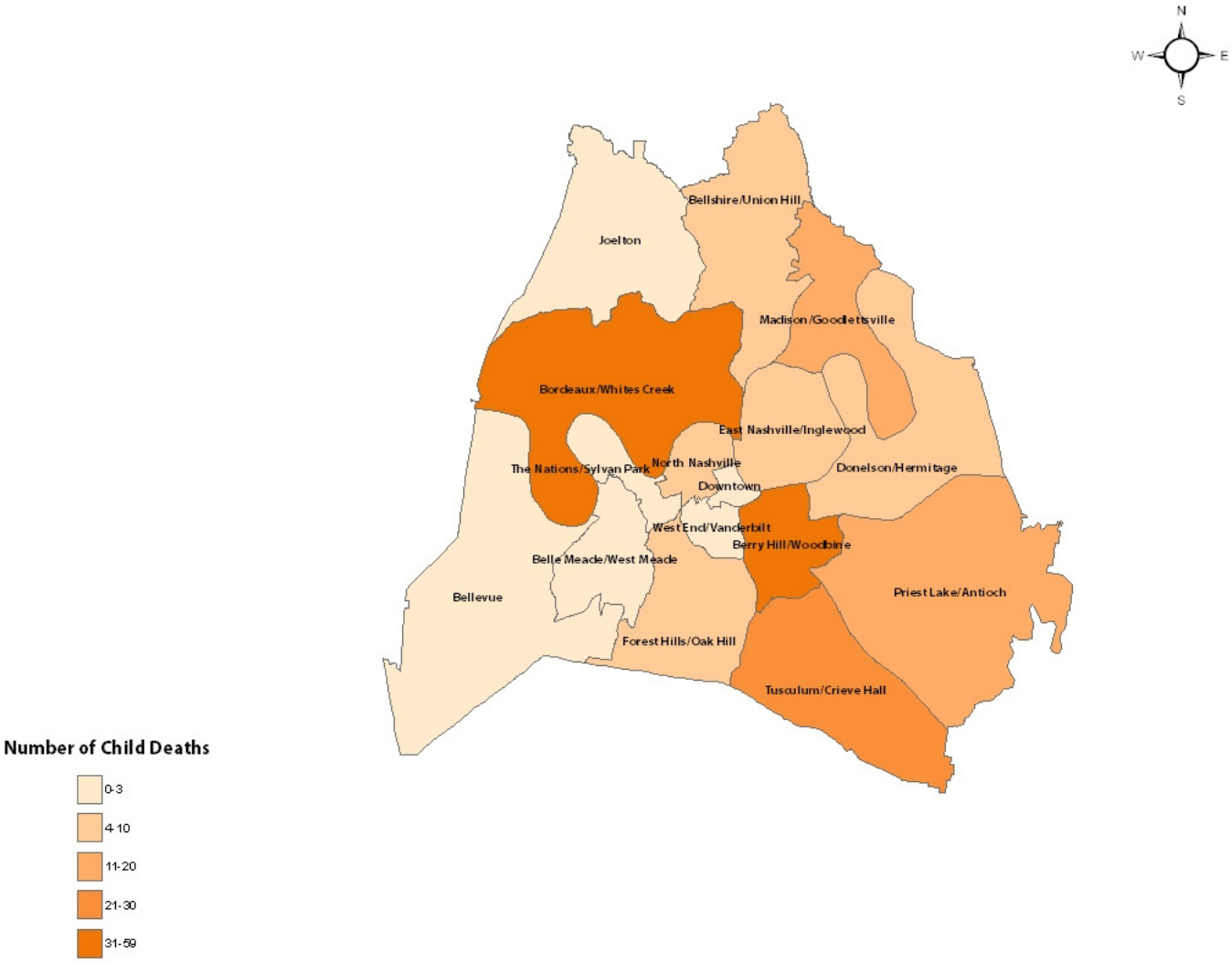
For 2011, twenty deaths (25.3%) were judged to have been preventable, and in six deaths (7.6%), preventability could not be determined.

- 2 deaths (3.4%) due to natural causes were judged as preventable.
- 10 deaths (90.9%) due to unintentional injuries were judged as preventable.
- 100% of suicide and homicide cases were judged as preventable.
- 5 undetermined deaths (71.4%) were judged as preventable.

Factors that Hindered Review or Resulted in Specific Action

- Review led to additional information in two cases (2.5%).
- Evidence of prior abuse was found in three cases (3.8%), and action was taken by DCS as a result of the death in all three cases.
- Other factors (such as an inaccurate or incomplete death/birth certificate) hindered review in twenty cases (25.3%).

Figure 2: Child Deaths by Health Planning District According to Resident Address at the time of Death, Davidson County, TN, 2007-2011



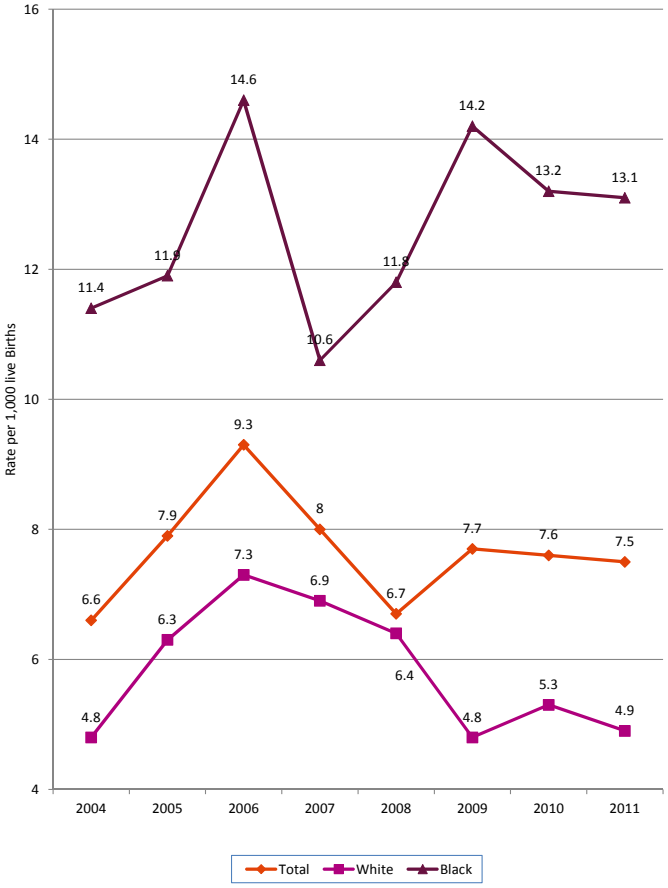
The Bordeaux/Whites Creek and Berry Hill/Woodbine health planning districts had the greatest number of deaths (31-59 deaths) to children aged 0 to 17 during the years 2007 through 2011. The next highest frequency of child deaths (11-30 deaths) occurred in Tusculum/Crieve Hall, Priest Lake/Antioch, and Madison/Goodlettsville health planning districts.

Infant Mortality in Davidson County[b]

Infant and child mortality are important indicators of the health of a nation and are associated with several factors such as access to health care, maternal health, and socioeconomic status.[1] Nationally, infant mortality rates have remained stable since 2000 and child mortality rates have decreased since 2002.[1] On average in Davidson County, infant deaths comprise fifty percent or greater of the total number of child deaths. Because the CDRT doesn't review all deaths (15 to 20% of deaths are not reviewed), the following sections reflect data on the total number of infants and children who die in Davidson County (regardless of case review) and thus provide the most accurate picture of the true burden of child mortality in Davidson County.[c]

- In 2011, the infant mortality rate in Davidson County was 7.5 per 1,000 live births, a rate that was 25% higher than the Healthy People (HP) 2020 Objective (MICH-1.3).[d]
- The white infant mortality rate in 2011 was 4.9 deaths per 1,000 live births, and black rate was 13.1. The black infant mortality rate was 2.7 times higher than the white rate.
- The white infant mortality rate in 2011 was 2.1% higher than the white rate in 2004. The black infant mortality rate in 2011 was 14.9% higher than the black rate in 2004.

Figure 3: Infant Mortality by Race, Davidson County, TN, 2004-2011County



[b] Infant mortality rates were taken from the Tennessee Department of Health (TDOH). TDOH only reports data by race; therefore, Hispanic ethnicity is not presented.

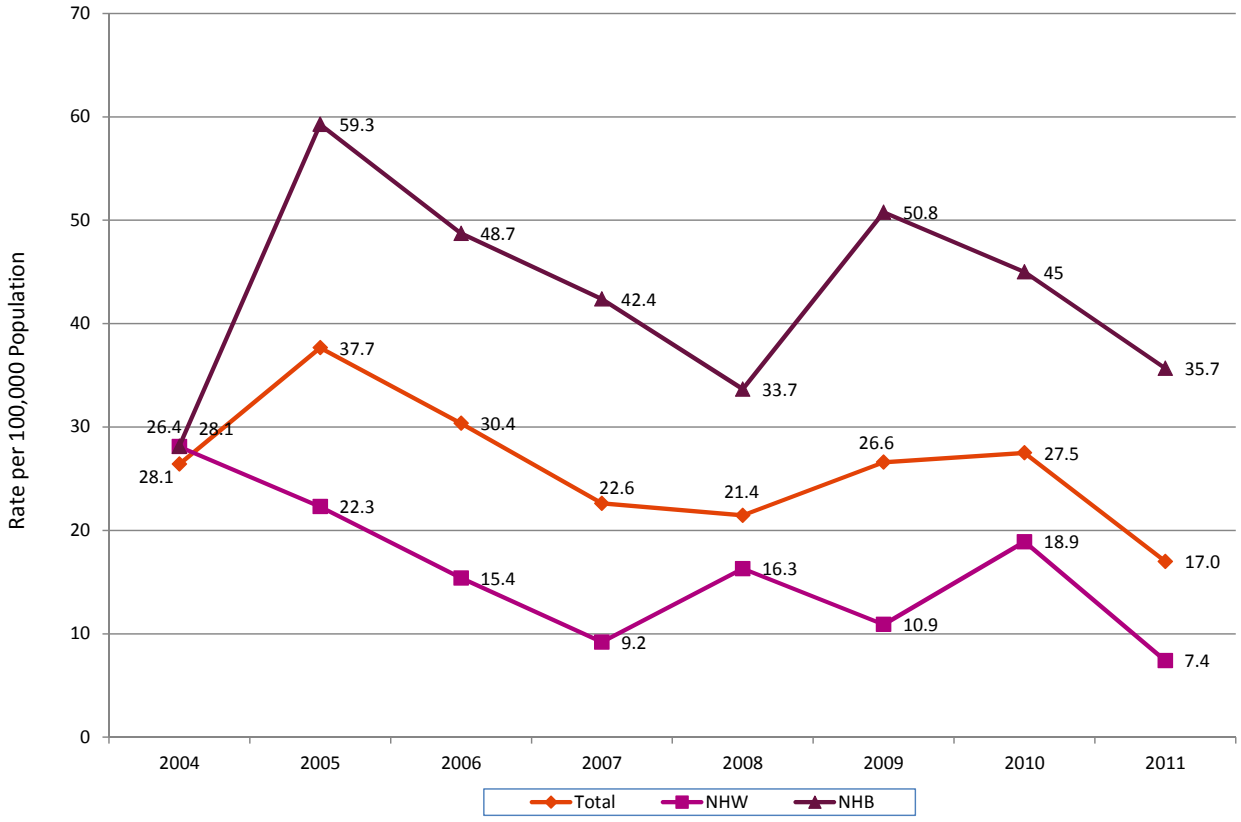
[c] Deaths for which the child was not a resident of Davidson County, the child death occurred out of state, and for infants that are born before 22 weeks of gestation, or weigh less than 500 gram are excluded from review.

[d] Healthy People 2020 are an established set of national goals and objectives for improving the health of all Americans by the year 2020. This objective refers to HP 2020 Maternal, Infant, and Child Health Objective 1.3: reduce infant deaths to 6.0 per 1,000 live births by the year 2020.

Child Mortality in Davidson County[e]

- In 2011, the mortality rate in Davidson County for children aged 1 to 17 years was 17 deaths per 100,000 population. Davidson County's child mortality rate was 3.5 times lower than the state rate of 60.2[e] per 100,000 population in 2011. There is no comparable Healthy People 2020 Objective for this measure.
- The non-Hispanic white child death rate in 2011 was 7.4 deaths per 100,000 population, and the non-Hispanic black rate was 35.7. The non-Hispanic black rate was 4.8 times higher than the non-Hispanic white rate.
- The non-Hispanic white child death rate in 2011 was 73.7% lower than the 2004 rate. The non-Hispanic black child death rate in 2011 was 27% higher than the rate in 2004.

Figure 4: Child Mortality by Race/Ethnicity, Davidson County, TN, 2004-2011



[e] Race and ethnicity was analyzed for child mortality but due to small numbers, data for Hispanic child mortality was excluded. According to the 2011 Tennessee Child Fatality Report, the state child death rate was 60.2 per 100,000 population in 2011.

Age-Specific Mortality

Age is one of the most important factors to consider when describing the occurrence of any disease or illness.[1] In the United States, mortality rates are highest among children less than one year of age followed by those aged 15 to 17 years. Mortality rates are lowest among children aged 5 to 9. Nationally, the overall leading cause of death among children is unintentional injuries while the leading cause of death among infants is congenital anomalies (birth defects), disorders related to short gestation and low birth weight, and SIDS .[2]

The CDRT in Davidson County reviewed seventy-nine deaths that occurred in 2011. Fifty-seven (72.2%) of the cases reviewed were of children less than 1 year of age. The leading causes of death for infants were as follows: twenty deaths (35.1%) resulted from prematurity, fourteen deaths (24.6%) resulted from birth defects, and six deaths (10.5%) resulted from some type of medical condition such meningitis, cardiomyopathy, etc.

Nationally, the overall leading cause of death among children is unintentional injuries while the leading cause of death among infants is congenital anomalies (birth defects), disorders related to short gestation and low birth weight, and SIDS.

Demographics and Risk Factors among Infants (Table 1 & 4)

Demographics

- 31 (54.4%) were non-Hispanic black.
- 19 (33.3%) were non-Hispanic white.
- 2 (3.5%) were Hispanic.
- 31 (54.4%) were male.

Risk Factors

- 37 (64.9%) were low birth weight (less than 2500 grams).
- 32 (56.1%) were premature (less than thirty-seven weeks gestation).
- 14 (24.6%) experienced intrauterine tobacco exposure.

Demographics and manner of death of the remaining twenty-two reviewed deaths are as follows:

7 deaths (8.9% of total) occurred to children aged 1 to 4:

Demographics

- 5 deaths: non-Hispanic black
- 4 deaths: male

Manner of Death

- 5 deaths: natural
- 2 deaths: unintentional injury

4 deaths (5.1% of total) occurred to children aged 5 to 9:

Demographics

- 2 deaths: non-Hispanic black
- 2 deaths: non-Hispanic white
- 2 deaths: male

Manner of Death

- 2 deaths: natural
- 2 deaths: unintentional injury

5 deaths (6.3% of total) occurred to children aged 10 to 14:

Demographics

- 4 deaths: non-Hispanic black
- 1 death: non-Hispanic white
- 5 deaths: male

Manner of Death

- 4 deaths: natural
- 1 death: unintentional injury

6 deaths (7.6% of total) occurred to children aged 15 to 17:

Demographics

- 4 deaths: non-Hispanic black
- 1 death: non-Hispanic white
- 1 death: Hispanic
- 3 deaths: male

Manner of Death

- 3 deaths: natural
- 1 death: unintentional injury
- 1 death: suicide
- 1 death: homicide

Deaths Due to Natural Causes

Nationally, deaths from natural causes are the leading cause of death in children under one and the second leading cause of death to children over one year of age, following unintentional injuries. These deaths are usually the result of common health conditions such as prematurity, birth defects, genetic disorders, and cancers. Although many health conditions that contribute to natural deaths are not preventable, public health practices can be implemented to prevent fatalities in some cases.[3] Such practices include genetic counseling and screening, preconception health, decreasing exposure to environmental hazards, and increasing compliance with treatment regimens.[3]

A total of fifty-eight deaths reviewed by the CDRT were due to natural causes, representing 73.4% of the reviewed child deaths. (Table 1)

A total of fifty-eight deaths reviewed by the CDRT were due to natural causes. 75.9% of deaths due to natural causes occurred to infants.

Demographics

- 44 deaths (75.9%) occurred to infants.
- 5 deaths (8.6%) occurred to children aged 1 to 4.
- 2 deaths (3.4%) occurred to children aged 5 to 9.
- 4 deaths (6.9%) occurred to children aged 10 to 14.
- 3 deaths (5.2%) occurred to children aged 15 to 17.
- 32 children (55.2%) were male.
- 2 children (3.4%) were Asian.
- 34 children (58.6%) were non-Hispanic black.
- 18 children (31%) were non-Hispanic white.
- 1 child (1.7%) was Hispanic.

Causes of Death

In the United States, one in every eight babies (more than half a million) are born premature and approximately one in every thirty-three babies are born with a birth defect.[4] Reflective of national trends, in Davidson County, prematurity and birth defects are the leading causes of natural deaths, and occur almost exclusively among infants. Many gaps exist in understanding why some women experience premature labor and why some babies are born with a birth defect; however, there are several known risk factors. These include having a previous preterm birth, medical conditions such hypertension, diabetes, and smoking/substance abuse, genetic pre-disposition, and age. Early access to quality preconception and prenatal care can reduce the likelihood of pre-term births and birth defects.[4]

- 20 deaths (35.5%) were due to prematurity. Of these:
    - 12 (60%) had a medical condition during pregnancy.
- 17 deaths (29.3%) were due to birth defects. Of these:
    - 6 (35.3%) had a medical condition during pregnancy.
- 12 deaths (24.1%) were due to a medical condition (hypoxemia, meningitis, hemorrhage, etc).
- 5 deaths (8.6%) were due to cancer.
- 2 deaths (3.4%) were due to a perinatal condition (any medical condition that occurred between three months before birth and twenty eight days after birth).
- 1 death (1.7%) was due to SIDS.
- 1 death (1.7%) was due to an unspecified infection.

Deaths Due to Sleep-Related Factors

Annually, more than 4,500 infants die suddenly and unexpectedly in the United States, without a prior known illness or injury.[5] Prior to 1998, sudden infant death syndrome (SIDS) was frequently declared as a legitimate cause of death among infants in these cases.[6] Since 1998, the classification of infant deaths as SIDS has decreased. As more deaths appear to be "sleep related," many deaths are being defined as sudden unexpected infant death (SUID). Many SUID deaths are classified as accidental suffocation, SIDS, or undetermined. The classification of "SIDS" is only declared after a rigorous autopsy, death scene investigation, and review of an infant's clinical history. A small percentage of SUID cases are classified as undetermined.[f] This usually results when the requirements for a SIDS classification are not fully met (e.g., no autopsy or death scene investigation).[5]

Sixteen deaths reviewed by the CDRT were determined to be sleep-related, representing 20.3% of the total deaths. Of these: four deaths were due to asphyxia (suffocation), four deaths were due to a medical condition, one death was due to SIDS, and seven deaths were due to other causes.[g]

Demographics

- 14 deaths (87.5%) occurred to children less than 1 year of age.
- 9 deaths (56.3%) occurred to non-Hispanic blacks.
- 5 deaths (31.3%) occurred to non-Hispanic whites.
- 2 deaths (12.5%) occurred to Hispanics.
- 11 deaths (68.8%) occurred among male children.

Risk factors (Table 5)

- 14 children (87.5%) were not placed to sleep in a crib or bassinette.
- 9 children (56.3%) were not sleeping on their back.
- 5 children (31.3%) were placed to sleep on unsafe bedding or with toys.
- 11 children (68.8%) were sleeping with other people.
- In 7 cases (43.8%), an adult was alcohol or drug impaired.

Circumstances

- 2 children (12.5%) were found on top of a person or object (blankets, pillows, etc.).
- 5 children (31.3%) were found under a person or object (blankets, towels, stuffed animals, etc.).
- 2 children (12.5%) were found pressed or wedged into or between objects (e.g. mattress or blankets) or between people.
- The circumstances were unknown in 4 deaths (25%).

[f] Seven (8.9%) child deaths were undetermined in 2011 compared to 20% in 2010. This reduction in undetermined deaths may be due to more accurate classification of the cause of death e.g. accidental suffocation as opposed to SIDS or unknown.

[g] Other causes include child deaths for which it was undetermined if the death was due to injury or medical cause.

Deaths Due to Unintentional Injuries

Although deaths due to unintentional injuries contribute as much to the public health burden as do smoking and obesity, they are a highly under-recognized public health problem.[7] Unintentional injuries are the leading cause of death in the United States among the population aged 1 to 44. The costs of unintentional injuries are staggering, both financially and psychologically. Economically, unintentional injuries cost 117 billion dollars annually. Disabilities that may occur as a result of unintentional injuries can lead to productivity loss, non-medical expenditures such as wheelchairs and personal caregivers, and diminished quality of life.[7]

Unintentional injuries were the second leading cause of death among children in Davidson County in 2011. There were eleven deaths due to unintentional injuries, representing 13.9% of the total deaths. The greatest number of deaths occurred among infants (5, 45.5%), males (8, 72.7%), and non-Hispanic blacks (9, 81.8%). Unintentional suffocations were the leading cause of death due to unintentional injuries, representing 6.3% of the total deaths and 45.5% of deaths due to unintentional injuries. Additional deaths due to unintentional injuries were caused by drowning (2, 18.2%), one motor vehicle crash, one fire/burns, one fall, and one poisoning (9.1% each). (Table 7) The circumstances are below:

Suffocation

One death was due to a child choking on a rubber ball. The remaining deaths (n=4) were due to asphyxia via suffocation and involved unsafe sleep environments.

Motor Vehicle Crash

The incident involved speeding and the vehicle hydroplaning during rainy conditions. The victim was unrestrained. The driver was driving with a suspended license and did not have insurance.

Poisoning

The incident involved multiple drug intoxication (alcohol, prescription, and illicit drugs). The child had a history of problems in school and juvenile detention. The incident occurred at a party, but no information was available to determine if drugs were obtained before or during party.

Fire

The incident was caused by a space heater that was placed too close to a couch after the father left the child at home unsupervised. A smoke detector was not present in the home.

Fall

The incident involved a child falling from a high balcony after being supervised by a sibling. The mother of the child was at home at the time of the incident.

Drowning

One incident was caused by a child drowning in the bath tub after the mother of the baby fell asleep. The other incident involved a child drowning in a recreational lake. There were no barriers to prevent access to water (fence, gate, alarms) in the area and the child did not have any safety devices (floats, jacket, swim ring, etc.). A rescue attempt was made by a sibling. It was unknown if the child could swim.

Deaths Due to Violence

More than 53,000 people die from violence related deaths in the United States each year. Violence related deaths primarily include suicides and homicides, with suicides ranking as the 10th leading cause of death in the United States.[8] In Davidson County, a total of three child deaths were due to some type of violence, representing 3.8% of the total deaths. The deaths occurred to children aged 15 to 17 and less than one year of age. Violent deaths were greater among non-Hispanic black females (2, 66.7%) compared to other racial/ethnic groups. Deaths due to violence include weapons such as firearm, knives and other instruments, and a person's body part. (Table 9)

Suicide

Nationally, among youth, suicide is the third leading cause of death. The three leading methods of suicide deaths include firearms, suffocations, and poisoning. Teen males are four times more likely to commit suicide while females are more likely to contemplate and report attempting suicide.[9] The risk for suicide is highest among non-Hispanic white male teens, although suicide rates among non-Hispanic blacks and Hispanics are increasing. Suicide attempts have significantly increased among Hispanic females (grades 9-12) compared to other racial/ethnic groups.[10] Risk factors for suicide include previous suicide attempts, alcohol/drug abuse, history of mental illness, and easy access to lethal methods.[11]
There was one death due to suicide, representing 33.3% of deaths due to violence and 1.3% of the total deaths. (Table 9)

Circumstances

The death resulted from a self-inflicted gunshot wound to the head. The incident involved family discord and social media. There was a history of self-mutilation and problems in school. A suicide note was left.

Homicides

Nationally, homicides are the leading cause of death for Hispanic and non-Hispanic black male teens.[12] Although racial differences in homicidal deaths are apparent, "race" alone is not a significant risk factor for homicide deaths. Contributing factors for differences in homicide rates include poverty, access to handguns, family dynamics, drug or gang activity, and decreased school performance. Homicides are usually the result of an argument or dispute between casual acquaintances and usually involve inexpensive, easily acquired handguns.[13]
There were two deaths due to homicide, representing 66.7% of deaths due to violence and 2.5% of the total deaths. (Table 9)

Circumstances

One incident involved the death of an infant by beating and shaking. The father was intoxicated during the incident and the mother of the baby was incarcerated. The father had lost custody of other children in another state, but had custody of the infant and a toddler in the state of TN. Murder charges were filed in the case. The remaining incident involved a victim losing his life in a gang related event involving a stolen gun. The victim had problems in school, was on probation, and had been in drug treatment.

Acts of Omission or Commission

In the United States, every minute at least six reports of child maltreatment are received by state and local agencies and slightly over 2% of these reports result in death. Since it is highly likely that most child maltreatment cases are underreported, the true magnitude of this problem is hard to assess, but various programs and activities, including extensive surveillance by the Centers for Disease Control and Prevention (CDC), are targeted to combat this problem. Children younger than four years of age and with special needs are at the greatest risk for abuse or death in these cases.[14]

Acts of omission or commission are defined as any act, or failure to act, that either causes or substantially contributes to the death of a child. Although acts of omission or commission are not exclusively defined as child maltreatment, many cases involve types of abuse that are common to child maltreatment (neglect, physical, emotional, and sexual abuse). This section is designed to reveal any behaviors that may be involved in a child's death.

A total of twenty-six deaths (32.9%) reviewed by the CDRT involved an act of omission (i.e. neglect) or commission (i.e. abuse or assault). In 11 cases, the acts of omission or commission caused the death of the child. In three cases, the act that caused the death was intentional. Among the remaining fifteen cases, the act of omission or commission contributed to the death of the child and was unintentional.

Demographics

- 16 deaths (61.5%) occurred among infants.
- 4 deaths (15.4%) occurred among children aged 1 to 4 years.
- 2 deaths (7.7%) occurred among children aged 5 to 9 years.
- 1 death (3.8%) occurred to a child aged 10 to 14 years.
- 3 deaths (11.5%) occurred among teens aged 15 to 17 years.
- 14 deaths (53.8%) occurred among non-Hispanic black children.
- 9 deaths (34.6%) occurred among non-Hispanic white children.
- 2 deaths (7.7%) occurred among Hispanic children.
- 17 deaths (65.4%) occurred among male children.

Circumstances (Table 6)

- 1 case involved suicide.
- 2 cases were homicidal in nature.
- 7 cases involved poor/absent supervision.
- 1 case involved drug/alcohol impairment.
- In one case, the suspect had a history of child maltreatment as a perpetrator.

Child Deaths from 2007 to 2011

Small numbers of events often make it difficult to discern patterns and possibilities for prevention. For this reason, all deaths reviewed by the Davidson County CDRT occurring from 2007 through 2011 were analyzed in aggregate. Due to accuracy of coding in the child death database, Hispanic ethnicity and race are not separated in the analysis of black and white child deaths. Each group is presented separately, but a child may be in more than one category. The CDRT reviewed the deaths of 464 resident children of Davidson County that died from 2007 to 2011.

Demographics

- 316 deaths (68.1%) occurred among children less than 1 year of age.
- 8 deaths (1.7%) occurred among Asian children.
- 244 deaths (52.6%) occurred among black children.
- 56 deaths (12.1%) occurred among Hispanic children.
- 276 deaths (59.5%) occurred among male children.

Manner of Death[h]

- 291 deaths (62.7%) were due to natural causes.
- 67 deaths (14.4%) were due to unintentional injuries.
- 35 deaths (7.5%) were due to homicide
- 9 deaths (1.9%) were due to suicide.
- 56 deaths (12.1%) were due to undetermined causes.
- 6 deaths (1.3%) were of unknown manner (left blank on the death certificate).

Preventability of Deaths

From 2007 to 2011, 141 deaths (30.4%) were judged to have been preventable, and in 37 deaths (8%), preventability could not be determined.

- 11 deaths (3.8%) due to natural causes were judged as preventable.
- 65 deaths (97%) due to unintentional injuries were judged as preventable.
- 100% of suicide and homicide cases were judged as preventable.
- 21 undetermined deaths (37.5%) were judged as preventable.

Factors that Hindered Review or Resulted in Specific Action

- The CDRT team disagreed with the official manner of death in eighteen cases (3.9%) and the official cause of death in eleven cases (2.4%).
- Confidentiality issues prevented the full exchange of information in five cases (1.1%).
- Review led to additional investigation in six cases (1.3%).
- Review led to implementation of a policy or prevention initiative in three cases (0.6%).
- Evidence of prior abuse was found in thirteen cases (2.8%), and action was taken by DCS as a result of the death in twenty-eight cases (6%).
- Other factors such as an inaccurate or incomplete death/birth certificate hindered the review in 128 cases (27.6%).

[h] Undetermined deaths are defined as any death for which cause is unknown after rigorous autopsy and crime scene investigation. Many undetermined deaths (between 80-100%) are related to the sleep environment in Davidson County. For example, between 2007 and 2011, 80.4% of undetermined deaths were sleep-related. A specific section on sleep related deaths is included in the report.

Age-Specific Mortality

From 2007 to 2011, 316 (68.1%) of the child death cases reviewed were of children less than 1 year of age.

Demographics and Risk Factors among Infants (Table 2 & 4)

Demographics

- 5 (1.6%) were Asian.
- 156 (49.4%) were black.
- 151 (47.8%) were white.
- 40 (12.7%) were Hispanic.
- 185 (58.5%) were male.

Risk Factors

- 209 (66.1%) were low birth weight (less than 2500 grams).
- 200 (63.3%) were premature (less than thirty-seven weeks gestation).
- 60 (19%) experienced intrauterine tobacco exposure.

Demographics and manner of death of the remaining 148 reviewed deaths are as follows:

41 deaths (8.8% of total) occurred to children aged 1 to 4:

Demographics

- 24 deaths: black
- 16 deaths: white
- 4 deaths: Hispanic
- 23 deaths: male

Manner of Death

- 17 deaths: natural
- 16 deaths: unintentional injury
- 3 deaths: homicide

26 deaths (5.6% of total) occurred to children aged 5 to 9:

Demographics

- 14 deaths: black
- 12 deaths: white
- 1 death: Hispanic
- 12 deaths: male

Manner of Death

- 15 deaths: natural
- 9 deaths: unintentional injury
- 1 death: suicide

33 deaths (7.1% of total) occurred to children aged 10 to 14:

Demographics

- 1 death: Asian
- 24 deaths: black
- 8 deaths: white
- 2 deaths: Hispanic
- 20 deaths: male

Manner of Death

- 21 deaths: natural
- 1 death: unintentional injury
- 6 deaths: homicide
- 4 deaths: suicide

48 deaths (10.3% of total) occurred to children aged 15 to 17:

Demographics

- 2 deaths: Asian
- 26 deaths: black
- 20 deaths: white
- 9 deaths: Hispanic
- 36 deaths: male

Manner of Death

- 7 deaths: natural
- 17 deaths: unintentional injury
- 19 deaths: homicide
- 4 deaths: suicide

Deaths Due to Natural Causes

A total of 291 deaths (62.7%) reviewed by the CDRT from 2007 to 2011 were due to natural causes. (Table 2)

Demographics

- 231 deaths (79.4%) were to infants less than 1 year of age.
- 17 deaths (5.8%) occurred to children aged 1 to 4.
- 15 deaths (5.1%) occurred to children aged 5 to 9.
- 21 deaths (7.2%) occurred to children aged 10 to 14.
- 7 deaths (2.4%) occurred to children aged 15 to 17.
- 5 children (1.7%) were Asian.
- 150 children (51.5%) were black.
- 133 children (45.7%) were white.
- 35 children (12%) were Hispanic.
- 166 children (57%) were male.

Causes of Death

- 126 deaths (43.3%) were due to prematurity.
- 90 deaths (30.9%) were due to birth defects.
- 27 deaths (9.3%) were due to medical conditions.
- 14 deaths (4.8%) were due to cancer.
- 13 deaths (4.5%) were due to some type of infection.
- 7 deaths (2.4%) were due to neurological and seizure disorders.
- 3 deaths (1%) were due to perinatal conditions.
- 3 deaths (1%) were due to pneumonia.
- 2 deaths (0.7%) were due to SIDS.

Circumstances

- 12 children (5.3%) were not receiving treatment for a medical condition.
- 194 children (85.1%) were receiving treatment for a medical condition within 48 hours of death.
- In 177 cases (77.6%), death was the expected result of a medical condition.
- In cases for which family compliance was necessary for treatment, five (2.2%) were not compliant.
- Environmental tobacco exposure was a contributing factor in eleven (4.8%) deaths.

Deaths Due to Sleep-Related Factors

A total of eighty-seven deaths (18.8%) reviewed by the CDRT from 2007 to 2011 were determined to be sleep-related. Of these: twenty-four deaths were due to asphyxia, fourteen deaths were due to a medical condition, and four deaths were due to SIDS. The cause of death was undetermined in two cases and forty-three deaths were due to other causes.[i] (Table 5)

Demographics

- 80 deaths (92%) occurred to children less than 1 year of age.
- 46 deaths (52.9%) occurred to black children.
- 40 deaths (46%) occurred to white children.
- 7 deaths (8%) occurred to Hispanic children.
- 52 deaths (59.8%) occurred among male children.

Risk factors

- 63 children (72.4%) were not placed to sleep in a crib or bassinette.
- 45 children (51.7%) were not sleeping on their back.
- 31 children (35.6%) were placed to sleep on unsafe bedding or with toys.
- 45 children (51.7%) were sleeping with other people.
- 4 children (4.6%) were sleeping with an obese adult.
- In eleven cases (12.6%), the supervising adult was drug impaired

Circumstances

- 30 children (34.5%) were found with their nose and mouth unobstructed by a person or object.
- 10 children (11.5%) were found on top of another person or object.
- 12 children (13.8%) were found under an object (blankets, towels, stuffed animals, etc.).
- 7 children (8%) were found between a person or object (i.e. between mattress and wall).
- 12 children (13.8%) were found pressed or wedged into an object (i.e. mattress or blankets).
- The circumstances were unknown in 14 deaths (16.1%).

A total of eighty-seven deaths (18.8%) reviewed by the CDRT were determined to be sleep-related from 2007-2011. Twenty-four deaths were due to asphyxia, fourteen deaths were due to a medical condition, and four deaths were due to SIDS.

[i] Other causes include child deaths for which it was undetermined if the death was due to injury or medical cause.

Deaths Due to Unintentional Injuries

There were sixty-seven deaths due to unintentional injuries, representing 14.4% of the deaths that occurred from 2007 to 2011. The greatest number of deaths occurred among infants (24, 35.8%), males (38, 56.7%), and blacks (36, 53.7%). There were nine deaths (13.4%) among Hispanic children. (Table 8)

Motor Vehicle Deaths

There were twenty-two deaths due to motor vehicle crashes, representing 32.8% of the deaths due to unintentional injuries and 4.7% of the total deaths.

Demographics (Table 8)

- 4 deaths (18.2%) occurred to children aged 5 to 9.
- 12 deaths (54.5%) occurred to teens aged 15 to 17.
- 1 child (4.5%) was Asian.
- 9 children (40.9%) were black.
- 12 children (54.5%) were white.
- 4 children (18.2%) were Hispanic.
- 14 children (63.6%) were male.

Circumstances

- In 14 cases, children were passengers in the vehicle.
- In 3 cases, children were drivers.
- In 2 cases, children were on a bicycle.
- In 3 cases, children were pedestrians.
- The driver was alcohol/drug impaired in 1 incident.
- In 4 cases, the drivers were in violation of the Tennessee graduated driver's license law or did not have a license.
- In 6 cases, there were other teen passengers in the vehicle with driver.
- 4 incidents involved unsafe driving conditions (fog, rain, etc.).
- In 8 cases, vehicle protective measures (seatbelt, airbag, child seat, etc.) were present but used incorrectly.
- In 16 cases, vehicle protective measures were present but not used.
- In 5 cases, protective measures were needed but not present. The protective measures mainly included some type of safety seat for children and bicycle helmets.

Additional Unintentional Injury Deaths

Additional deaths due to unintentional injuries were caused by suffocations (25, 37.3%), fires or burns (7, 10.4%), falls or crushing (4, 6%) and drowning (5, 7.5%). Three deaths (4.5%) were caused by accidental overdose of prescription drugs and one death (1.5%) was weapon related.

Deaths Due to Violence

Forty-four deaths (9.5%) were attributed to violence from 2007 to 2011. The greatest number of deaths occurred among children aged 15 to 17 (23, 52.3%), males (33, 75%), and blacks (29, 65.9%). There were six deaths (13.6%) among Hispanic children. (Table 10)

Suicides

There were nine deaths due to suicide, representing 20.5% of violence-related deaths and 1.9% of the total deaths. (Table 10)

Demographics

- 1 death occurred to a child aged 5 to 9 years.
- 4 deaths occurred to children aged 10 to 14 years.
- 4 deaths occurred to children aged 15 to 17 years.
- 5 children were black.
- 5 children were male.

Circumstances (2007-2010)[j]

- 5 cases involved asphyxia (strangulation).
- 3 cases involved the use of a weapon.
- In 6 cases, suicide was unexpected. In 4 cases the child had threatened, attempted, or premeditated a suicide attempt (child talked about plans for suicide).
- In 1 case, the suicide was triggered by family discord.
- 2 cases involved children with a history of mental health problems.
- A note was left in 4 cases.

Homicides

There were 35 deaths due to homicide, representing 79.5% of violence-related deaths and 7.5% of the total deaths. (Table 10)

Demographics

- 7 deaths occurred among children less than 1 year of age.
- 3 deaths occurred among children aged 1 to 4 years.
- 6 deaths occurred among children aged 10 to 14 years.
- 19 deaths occurred among teens aged 15 to 17 years.
- 24 children were black.
- 6 children were Hispanic.
- 28 children were male.

In 82.9% of homicide deaths, the victim had a positive drug screen at autopsy. 31.3% of deaths were gang related and in 28.6% of the homicide deaths the victim had an open DCS case.

[j] This section excludes 2011 case information since it was presented in the section for 2011 deaths.

Common Factors in Homicide Deaths

- Positive Drug Screen at Autopsy: 29 (82.9%)
- Criminal History: 15 (42.9%)
- Problems in school: 11 (31.4%)
- Open DCS case: 10 (28.6%)
- Juvenile Detention History: 8 (22.9%)
- Mental Health History: 5 (14.3%)
- Physical disability: 2 (5.7%)

Type of Weapon Involved in Homicide Death

- Firearm: 23 (71.9%)
  - Handgun: 19 (59.4%)
  - Hunting Rifle: 3 (9.4%)
  - Shotgun: 1 (3.1%)
- Person Body Part [k]: 6 (18.8%)
- Sharp or Blunt Instrument: 2 (6.3%)

Circumstances Related to Homicide Deaths Involving the Use of Firearms (n=32):

- History of Weapon Offenses: 5 (15.6%)
- Used weapon for commission of a crime: 10 (31.3%)

  Weapon Owner:
  - Acquaintance: 4 (12.5%)
  - Rival Gang Member: 5 (15.6%)
  - Other: 3 (9.4%)

  Incident triggered by:
  - Argument or Jealousy: 11 (34.4%)
  - Gang Activity: 10 (31.3%)

Other homicide deaths that were not weapon related:

One homicide death was due to poisoning and involved the deliberate poisoning of a child by the mother. The mother had history of depression and prior DCS history with unsubstantiated claims. Six (6) of the homicide cases were to children less than one year of age. Death resulted from physical abuse of a child by beating or shaking.

- Two cases involved a prior history of intimate partner violence.
- In two cases, the child was in custody of a caregiver other than biological parent and other children were removed.
- In one case, the father was the perpetrator.
- In one case, the baby was born drug exposed and the mother had a physical disability.
- In one case, the mother had a history of drug and alcohol abuse, criminal history, and suicidal ideations, but there was no DCS investigation until after death of the child.

[k] Refers to deaths involving physical body trauma such as beating, kicking, and shaking .

Acts of Omission or Commission

A total of 113 deaths (24.4%) reviewed by the CDRT involved an act of omission (i.e. neglect) or commission (i.e. abuse or assault). The acts of omission or commission caused the death of the child in 53 incidents, and among these 35 were intentional. The acts of omission or commission contributed to the death of the child in 61 incidents, and among these 4 were intentional.

Demographics

56 deaths (49.6%) occurred among infants.

- 15 deaths (13.3%) occurred among children aged 1 to 4 years.
- 6 deaths (5.3) occurred among children aged 5 to 9 years.
- 14 deaths (12.4%) occurred among children aged 10 to 14 years.
- 22 deaths (19.5%) occurred among teens aged 15 to 17 years.
- 3 children (2.7%) were Asian.
- 71 children (62.8%) were black.
- 38 children (33.6%) were white.
- 10 children (8.8%) were Hispanic.
- 70 children (61.9%) were male.

Circumstances

A total of 17 cases (15%) involved child abuse/neglect (Table 6):

8 cases involved child abuse

- 8 of those cases involved physical abuse of some type (head trauma, beating/kicking etc.).
- In 4 cases, the abuse was chronic or a pattern with the child.
- In 3 cases, the abuse was an isolated incident.

DCS Information

- 3 incidents involved open DCS cases.
- In 3 cases, there was evidence of prior abuse.
- In 3 cases, the child had a history of child maltreatment as a victim.
- In 2 cases, the child was placed outside of the home.
- DCS action was taken as a result of the death review in 5 cases.

Perpetrator Information

- Someone other than the biological parent was responsible for abuse in 3 of the cases.
- In 2 cases, the perpetrator was drug or alcohol impaired.
- In 3 cases, the perpetrator had a history of substance abuse.
- In 5 cases, the perpetrator had a history of child maltreatment.
- In 2 cases, the perpetrator had a history of intimate partner violence.

9 cases involved child neglect

- 1 case involved abandonment.
- 1 case involved a failure to provide necessities.
- 3 cases involved a failure to protect from hazards.
- 5 cases involved medical neglect.
- Neglect was chronic or a pattern with the child in 5 cases and an isolated event in 1 case.
- Someone other than the biological parent was responsible for the neglect in 1 case.

DCS Information

- In 5 cases, there was an open DCS case.
- In 4 cases, DCS found evidence of prior abuse.
- In 3 cases, the child had a history of child maltreatment as a victim.
- In 1 case, the child was placed outside of the home.
- Action was taken as a result of the death in 8 cases.

A total of 113 deaths (24.4%) reviewed by the CDRT involved an act of omission (i.e. neglect) or commission (i.e. abuse or assault). Almost half of the child deaths, 49.6%, occurred among infants.

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2011-2012

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Appendix

Table 1: Number and Percentage of Deaths by Manner of Death and Age, Race/Ethnicity, and Sex, Davidson County, Tennessee, 2011

	Total		Age					Sex		Race	
Manner of Death	N	%	< 1 year	1-4 years	5-9 years	10-14 years	15-17 years	Male	Female	non-Hispanic white	non-Hispanic black
Natural	58	73.4	44	5	2	4	3	32	26	18	34
Unintentional Injury	11	13.9	5	2	2	1	1	8	3	1	9
Suicide	1	1.3	0	0	0	0	1	0	1	1	0
Homicide	2	2.5	1	0	0	0	1	1	1	0	2
Undetermined	7	8.9	7	0	0	0	0	5	2	3	2
Total	79		57	7	4	5	6	46	33	23	47
Percentage*	100		72.2	8.9	5.1	6.3	7.6	58.2	41.8	29.1	59.5

*Percentage of total deaths.

Table 2: Number and Percentage of Deaths by Manner of Death and Age, Race, and Sex, Davidson County, Tennessee, 2007-2011

	Total		Age					Sex		Race			Ethnicity	
Manner of Death	N	%	< 1 year	1-4 years	5-9 years	10-14 years	15-17 years	Male	Female	White	Black	Asian	non-Hispanic	Hispanic
Natural	291	62.7	231	17	15	21	7	166	126	133	150	5	256	35
Unintentional Injury	67	14.4	24	16	9	1	17	38	29	30	36	1	58	9
Suicide	9	1.9	0	0	1	4	4	5	4	4	5	0	9	0
Homicide	35	7.5	7	3	0	6	19	28	7	9	24	2	29	6
Undetermined	56	12.1	49	5	1	1	0	35	20	27	27	0	50	5
Unknown*	6	1.3	5	0	0	0	1	4	2	4	2	0	5	1
Total	464		316	41	26	33	48	276	188	207	244	8	407	56
Percentage**	100		68.1	8.8	5.6	7.1	10.3	59.5	40.5	44.6	52.6	1.7	87.7	12.1

*Percentage of total deaths.

**Describes deaths for which circumstances are completely unknown after thorough investigation.

Table 3: Deaths by Manner and Preventability, Davidson County, 2011 and 2007-2011					
	Could the Death Have Been Prevented?				
2011					
Manner	No	Yes	Could not determine	Unknown	Total
Natural	53	2	3	0	58
Unintentional Injury	0	10	1	0	11
Suicide	0	1	0	0	1
Homicide	0	2	0	0	2
Undetermined	0	5	2	0	7
Unknown	0	0	0	0	0
Total	53	20	6	0	79
2007-2011					
Natural	272	11	6	2	291
Unintentional Injury	1	65	1	0	67
Suicide	0	9	0	0	9
Homicide	0	35	0	0	35
Undetermined	5	21	30	0	56
Unknown	6	0	0	0	6
Total	284	141	37	2	464

Table 4: Characteristics of Infant Deaths by Manner of Death Listed on Death Certificate, Davidson County, 2011 and 2007-2011

	Manner of Death on Death Certificate*					
	Natural	Unintentional Injury	Homicide	Undetermined	Unknown	Total
2011	N	N	N	N	N	N
Total Deaths Reviewed	44	5	1	7	0	57
Premature (<37 weeks)	30	1	0	1	0	32
Low Birth Weight (<2500 grams)	37	0	0	0	0	37
Intrauterine Smoke Exposure	6	2	0	6	0	14
2007-2011						
Total Deaths Reviewed	231	24	7	49	5	316
Premature (<37 weeks)	179	8	0	9	4	200
Low Birth Weight (<2500 grams)	187	6	1	10	5	209
Intrauterine Smoke Exposure	31	8	0	20	1	60

*Categories are not mutually exclusive.

Table 5: Factors Involved in Sleep-Related Deaths By Age Group, Davidson County, 2011 and 2007-2011

	Age Group						
2011	0-1 mos	2-3 mos	4-5 mos	6-7 mos	8-11 mos	1-4 years	Total
Total Deaths Reviewed	6	3	5	0	0	2	16
Not in a crib or bassinette	6	3	5	0	0	0	14
Not sleeping on back	3	2	2	0	0	2	9
Placed on unsafe bedding or with toys	1	2	1	0	0	1	5
Sleeping with other people	4	2	5	0	0	0	11
Obese adult sleeping with child	0	0	0	0	0	0	0
Adult was alcohol or drug impaired	4	2	1	0	0	0	7
2007-2011							
Total Deaths Reviewed	21	27	18	6	8	7	87
Not in a crib or bassinette	17	20	15	4	4	3	63
Not sleeping on back	8	18	12	2	3	2	45
Placed on unsafe bedding or with toys	7	12	8	2	0	2	31
Sleeping with other people	14	15	9	2	3	2	45
Obese adult sleeping with child	2	2	0	0	0	0	4
Adult was alcohol or drug impaired	4	4	1	0	0	2	11

*Categories are not mutually exclusive.

Table 6: Acts of Omission and Commission By Age Group, Davidson County, 2011 and 2007-2011

2011	Total Deaths Reviewed	Poor/Absent Supervision	Child Abuse	Child Neglect	Other Negligence	Assault (not child abuse)	Suicide	Other
<1 year	16	3	0	0	5	1	0	6
1-4 years	4	2	0	0	1	0	0	0
5-9 years	2	1	0	0	1	0	0	0
10-14 years	1	0	0	0	1	0	0	0
15-17 Years	3	1	0	0	0	1	1	0
Total	26	7	0	0	8	2	1	6
2007-2011								
<1 year	56	3	6	4	31	1	0	10
1-4 years	15	5	2	1	6	0	0	0
5-9 years	6	1	0	1	2	0	1	1
10-14 years	14	1	0	3	1	4	4	2
15-17 Years	22	1	0	0	3	9	3	5
Total	113	11	8	9	43	14	8	18

*Categories are not mutually exclusive.

Table 7: Number and Percentage of Deaths Due to Unintentional Injury by Age, Sex, Race, and Ethnicity, Davidson County, Tennessee, 2011

	Total		Age					Sex		Race/Ethnicity	
Cause of Death	N	%	< 1 year	1-4 years	5-9 years	10-14 years	15-17 years	Male	Female	non-Hispanic white	non-Hispanic black
Vehicular	1	9.1	0	0	1	0	0	0	1	0	1
Fire/Burns	1	9.1	0	0	1	0	0	1	0	0	1
Drowning	2	18.2	1	0	0	1	0	1	1	0	2
Suffocation	5	45.5	4	1	0	0	0	4	1	1	4
Falls	1	9.1	0	1	0	0	0	1	0	0	1
Poisonings	1	9.1	0	0	0	0	1	1	0	0	0
Total	11		5	2	2	1	1	8	3	1	9
Percentage*		100	45.5	18.2	18.2	9.1	9.1	72.7	27.3	9.1	81.8

*Percentage of total deaths due to unintentional injury.

Table 8: Number and Percentage of Deaths Due to Unintentional Injury by Age, Sex, Race, and Ethnicity, Davidson County, Tennessee, 2007-2011

	Total		Age					Sex		Race		Ethnicity	
Cause of Death	N	%	< 1 year	1-4 years	5-9 years	10-14 years	15-17 years	Male	Female	White	Black	Non-Hispanic	Hispanic
Vehicular	22	32.8	0	0	4	0	12	14	8	12	9	18	4
Fire/Burns	7	10.4	1	6	4	0	1	3	4	3	4	6	1
Drowning	5	7.5	1	1	0	1	1	3	2	2	3	5	0
Suffocation	25	37.3	21	2	0	0	0	12	13	10	15	22	3
Fall/Crush	4	6.0	0	4	1	0	1	4	0	1	3	4	0
Poisonings	3	4.5	0	2	0	0	2	2	1	2	1	2	1
Other	1	1.5	1	1	0	0	0	0	1	0	1	1	0
Total	67		24	16	9	1	17	38	29	30	36	58	9
Percentage*		100	35.8	23.9	13.4	1.5	25.4	56.7	43.3	44.8	53.7	86.6	13.4

*Percentage of total deaths due to unintentional injuries.

Table 9: Number and Percentage of Deaths Due to Violence by Age, Sex, Race/Ethnicity, Davidson County, Tennessee, 2011

		Total		Age		Sex		Race/Ethnicity	
Manner of Death	Cause of Death	N	%	< 1 year	15-17 years	Male	Female	non-Hispanic white	non-Hispanic black
Homicide	Weapon**	2	66.7	1	1	1	1	0	2
Suicide	Weapon**	1	33.3	0	1	0	1	1	0
	Total	3		1	2	1	2	1	2
	Percentage*	3.8	100	33.3	66.7	33.3	66.7	33.3	66.7

*Percentage of total deaths due to violence for all ages.

**Weapon includes firearm, knives and other instruments, as well as a person's body part.

Table 10: Number and Percentage of Deaths Due to Violence by Age, Sex, Race, and Ethnicity, Davidson County, Tennessee, 2007-2011

		Total		Age					Sex		Race		Ethnicity	
Manner of Death	Cause of Death	N	%	< 1 year	1-4 years	5-9 years	10-14 years	15-17 years	Male	Female	White	Black	Non-Hispanic	Hispanic
Homicide	Suffocation	1	2.3	1	0	0	0	0	1	0	1	0	1	0
	Weapon**	32	72.7	6	1	0	6	19	26	6	7	23	26	6
	Poisoning	1	2.3	0	1	0	0	0	0	1	1	0	1	0
	Other	1	2.3	0	0	0	0	0	1	0	0	1	1	0
Suicide	Suffocation	5	11.4	0	0	1	3	1	3	2	1	4	5	0
	Weapon**	4	9.1	0	0	0	1	3	2	2	3	1	4	0
	Total	44		7	2	1	10	23	33	11	13	29	38	6
	Percentage*		100	15.9	4.5	2.3	22.7	52.3	75	25	29.5	65.9	86.4	13.6

*Percentage of total deaths due to violence.

**Weapon includes firearm, knives and other instruments, as well as a person's body part.