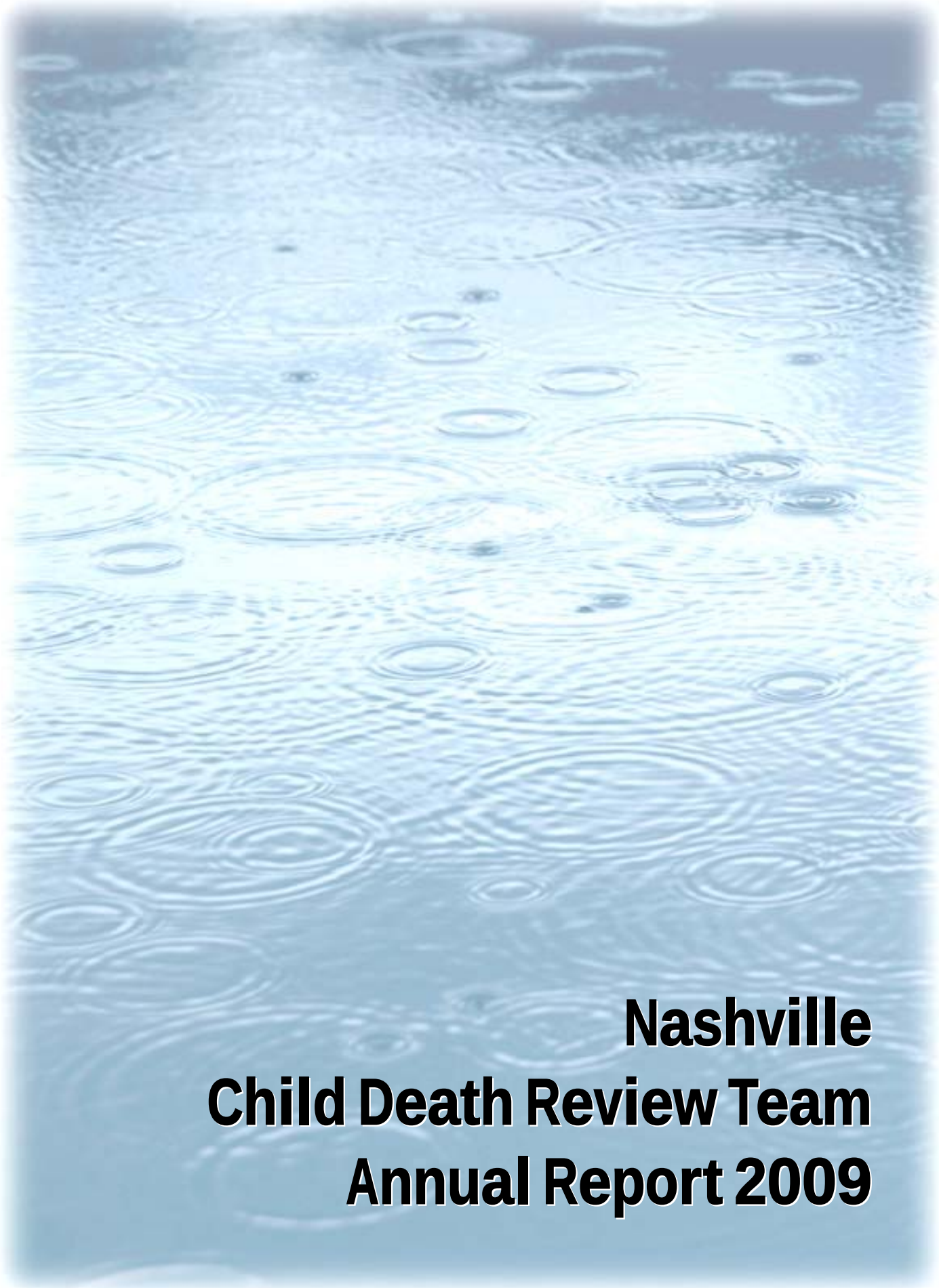


Nashville Child Death Review Team Annual Report 2009

Davidson County Child Death Review Team

Annual Report

Author:

Brook McKelvey, M.A., M.P.H.

Epidemiologist

Metro Public Health Department

Leaders of the Child Death Review Team:

Kimberlee Wyche-Etheridge, M.D., M.P.H., Team Chair

Director, Bureau of Family, Youth and Infant Health

Metro Public Health Department

Adele Lewis, M.D., Team Vice-Chair

Nashville and Davidson County Medical Examiner

State of Tennessee Medical Examiner

Debi Hoffman, Team Staff Support

Metro Public Health Department

Table of Contents

Preface:

For the year 2009, the Davidson County Review Team (CDRT) reviewed 93 deaths of resident children under the age of 18, and infant deaths greater than 500 grams (3 pounds, 3 ounces). To better understand how and why these children died, the CDRT is empowered by a Mayoral Executive Order to conduct reviews with the following goals in mind:

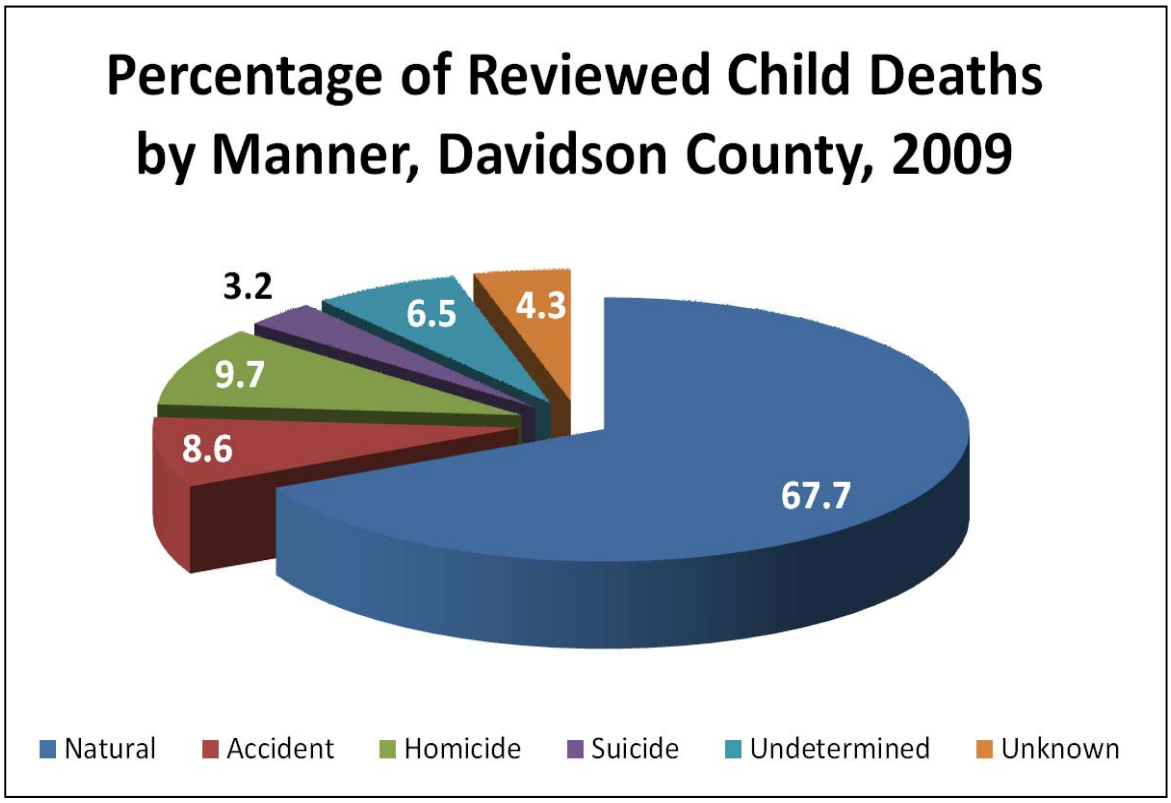
1. Identify factors that put a child at risk of injury or death.
2. Share information among agencies that provide services to children and families or that investigate child deaths.
3. Improve local investigations of unexpected/unexplained child deaths by participating agencies.
4. Improve existing services and service delivery systems and identify areas in the community that require additional services.
5. Identify trends relevant to child injury and death.
6. Educate the public about the causes of child injury and death 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.

Executive Summary:

- In 2009, the CDRT reviewed the deaths of 93 resident children of Davidson County.
- 56 deaths (60.2%) occurred among male children.
- 52 deaths (55.9%) occurred among black children.
- 39 deaths (41.9%) occurred among white children.
- 14 deaths (15.1%) occurred among Hispanic* children.
- 58 deaths (62.4%) occurred among children less than 1 year of age.
- 7 deaths (7.5%) occurred among children aged 1 to 4 years.
- 11 deaths (11.8%) occurred among children aged 15 to 17 years.
- 25 deaths (26.9%) were judged to have been preventable, and in 3 deaths (3.2%) preventability could not be determined.
- The manner of death of the cases reviewed as follows:
    - ◊ 63 deaths (67.7%) were due to natural causes:
        - ♦ 29 deaths (46.0% of naturals): congenital anomalies
        - ♦ 13 deaths (20.6% of naturals): prematurity.
    - ◊ 8 deaths (8.6%) were due to unintentional injuries:
        - ♦ 4 deaths (50.0% of unintentional injuries): motor vehicle crashes
        - ♦ 2 deaths (25.0% of unintentional injuries): asphyxia.
    - ◊ 9 deaths (9.7%) were due to homicide.
    - ◊ 3 deaths (3.2%) were due to suicide.
    - ◊ 6 deaths (6.5%) were undetermined.
    - ◊ 4 deaths (4.3%) were of unknown manner (left blank on the death certificate).

*In this report ethnicity is not mutually exclusive with race, thus Hispanic children are also counted in the race categories, i.e. “white” includes both Hispanic and Non-Hispanic children.



- The CDRT team disagreed with the official manner of death in 6 cases (6.5%), and disagreed with the official cause of death in 4 cases (4.3%).
- Confidentiality issues prevented the full exchange of information in 2 cases (2.2%).
- Review led to changes in either practice or policy in 1 case (1.1%), and the review led to prevention initiatives being implemented in 1 case (1.1%).
- Investigation found evidence of prior abuse in 2 cases (2.2%), and action was taken by Child Protective Services (CPS) as a result of the death in 1 case (1.1%).

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. In 2009, the CDRT made the following recommendations:

1. Considering the confusing regulations regarding a child's weight and the switch from a car seat to a booster seat, the CDRT recommends that pediatricians include a review of car seat safety at the child's 12 month check-up.

2. Consider an ad campaign that will encourage pregnant women to ensure that all child-hood immunizations are up-to-date. Stress how this will benefit the infant during their first six months of life.

3. Improve inter-conception services (wrap around services) for mothers who experience fetal and infant losses; services may be incorporated into the Central Referral System.

4. Suicide prevention, impulse control, and anger management training needs to be provided to children younger than teens. Additionally, suicide prevention training should be extended beyond the scope of school administration and faculty to include parents.

5. CPR training should be included in standard prenatal care protocols. Additionally, other avenues to reach parents with the training should be found and/or developed.

6. Create linkages between hospitals and home visiting programs so that the families of children released from intensive care receive home visiting services.

7. The birth transcript should be modified to expand the congenital anomaly list; either add more anomalies to the list or add an "other" category so that all congenital anomalies are documented.

The Child Death Review Process

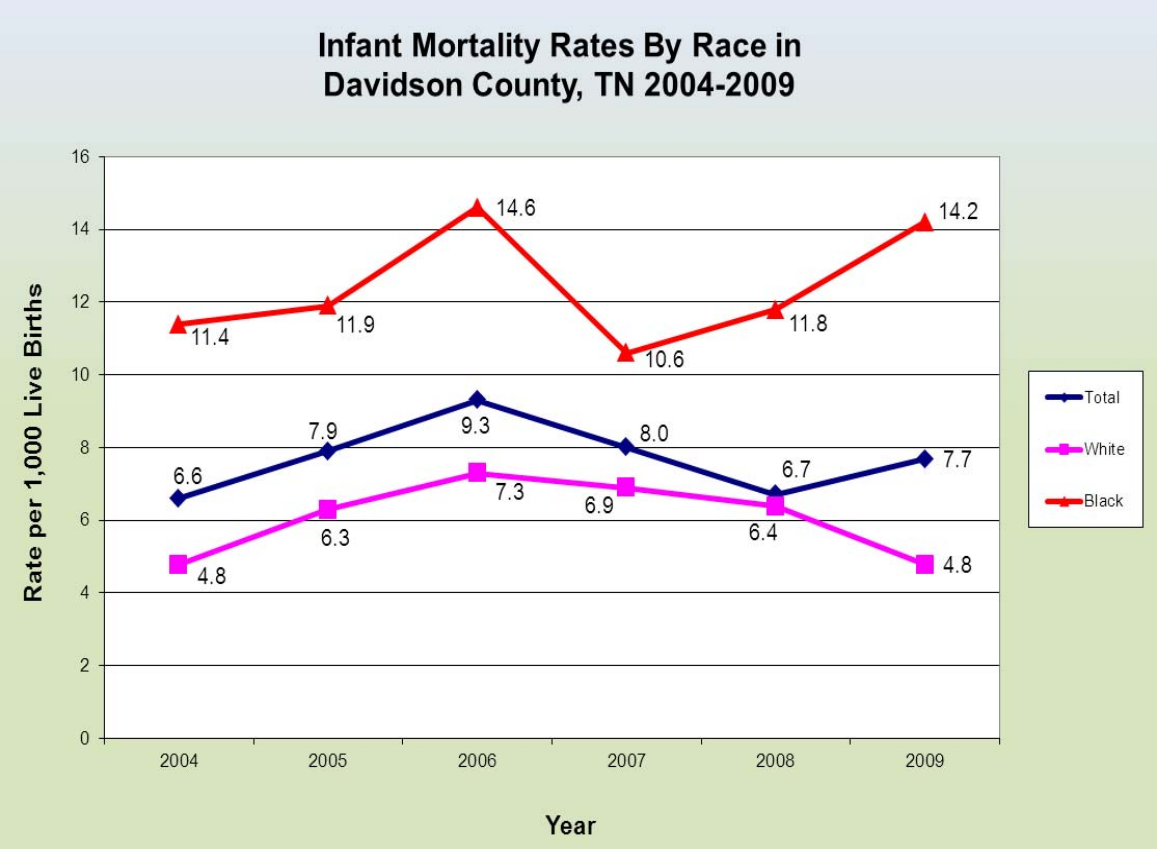
When a child dies:

- The birth and death certificates are sent from the Tennessee Department of Health (TDH) to the Metro Public Health Department (MPHD) Child Death Review Team data coordinator. These data are supplemented with records from the MPHD Office of Vital Records.
- Copies of birth and death records are sent to the Team members.
- All Team members search their agency/hospital files and bring either the records or case summaries to Team meetings. Available records are requested from programs within MPHD.
- The Team meets once a month. At these meetings, each case is reviewed and the TDH data collection form is completed.
- 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 an individual child death.
- The data coordinator enters the information obtained from the meetings into a statewide database managed by the National MCH Center for Child Death Review.
- An annual report is produced. The purpose of the report is to disseminate findings and assist in the development of data-driven recommendations for the prevention of child deaths.

Infant and Child Mortality in Davidson County

Infant Mortality:

- In 2009, the infant mortality rate in Davidson County was 7.7 per 1,000 live births, a rate that was 28.3% higher than the Healthy People 2020 Objective (MICH-1.3).
- The white infant mortality rate in 2009 was 4.8 deaths per 1,000 live births, and the black rate was 14.2. The black rate was 3 times higher than the white rate. (Due to small numbers, ethnicity is not a separate category.)
- Since 2007, the infant mortality rate for blacks has increased 25.4% while the white rate has decreased 30.4%.



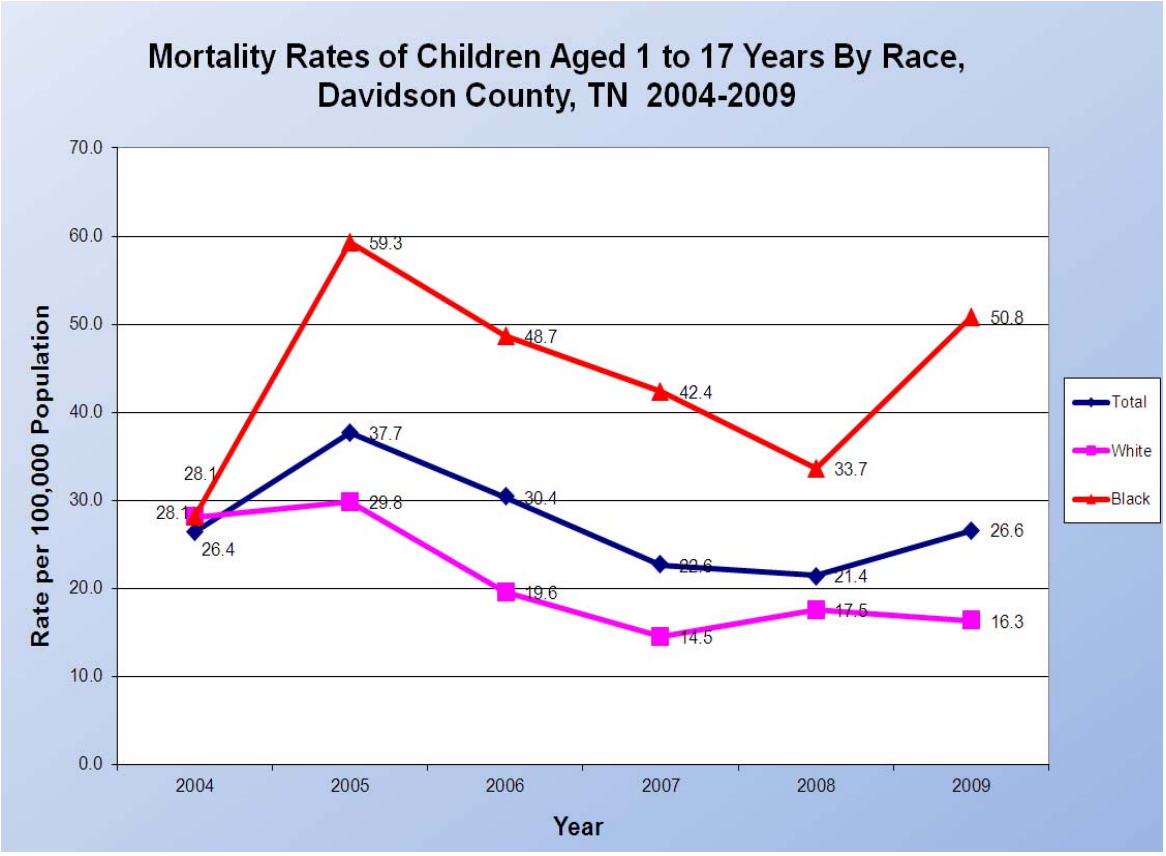
- The white infant mortality rate in 2009 was the same as the white rate in 2004. The black infant mortality rate in 2009 was 24.6% higher than the black rate in 2004.

Child Mortality:

- In 2009, the mortality rate in Davidson County of children aged 1 to 17 years was 26.6 deaths per 100,000 population. There is no comparable Healthy People 2020 Objective for this measure.

- The white child death rate in 2009 was 16.3 deaths per 100,000 population, and the black rate was 50.8. The black rate was 3 times higher than the white rate. (Due to small numbers, ethnicity is not a separate category.)

- The white child death rate in 2009 was 42.0% lower than the 2004 rate. The black child death rate in 2009 was 80.8% higher than the rate in 2004.



Demographics, Risk Characteristics, and Manner of Death by Age Group

The CDRT in Davidson County reviewed a total of 93 deaths in 2009. Fifty-eight (62.4%) of the cases reviewed were of children less than 1 year of age. Of these:

- 30 (56.9%) were black.
- 26 (44.8%) were white.
- 10 (17.2%) were Hispanic.
- 34 (58.6%) were low birth weight (less than 2500 grams).
- 31 (53.4%) were premature (less than 37 weeks gestation).
- 10 (17.2%) experienced intrauterine smoke exposure.
- 7 (12.1%) mothers received late or no prenatal care.
- 2 (3.4%) experienced intrauterine drug exposure.

The leading causes of death for infants are as follows:

- 23 deaths (39.7%) resulted from congenital anomalies.
- 13 deaths (22.4%) resulted from prematurity.
- 3 deaths (5.2%) resulted from unknown causes.

Demographics and manner of death of the remaining 35 reviewed deaths are as follows:

- 7 deaths (7.5% of total) occurred to children aged 1 to 4:
  - 4 deaths: black
  - 3 deaths: white
  - 4 deaths: male
  - 5 deaths: natural
  - 2 deaths: unintentional injury
- 7 deaths (7.5% of total) occurred to children aged 5 to 9:
  - 4 deaths: white
  - 1 death: Hispanic

- 6 deaths: male
- 6 deaths: natural
- 1 deaths: unintentional injury

- 10 deaths (10.8% of total) occurred to children aged 10 to 14:
  - 9 deaths: black
  - 1 death: white
  - 5 deaths: male
  - 5 deaths: natural
  - 3 deaths: suicide
  - 2 deaths: homicide

- 11 deaths (11.8% of total) occurred to children aged 15 to 17:
  - 6 deaths: black
  - 5 deaths: white
  - 3 deaths: Hispanic
  - 8 deaths: male
  - 5 deaths: homicide
  - 3 deaths: unintentional injury
  - 2 deaths: natural
  - 1 death: unknown cause

Medical Conditions

A total of 69 deaths (74.2%) reviewed by the CDRT were determined to involve a medical condition.

Demographics:

- 50 deaths (72.5%) were to infants aged less than 1 year.
- 5 deaths (7.2%) occurred to children aged 10 to 14.
- 3 deaths (4.3%) were to children aged 15 to 17.
- 39 children (56.5%) were male.
- 38 children (55.1%) were black.
- 30 children (43.5%) were white.
- 11 children (15.9%) were Hispanic.

Causes of Death:

- 29 (43.5%) deaths were due to congenital anomalies.
- 16 (23.2%) deaths were due to prematurity.
- 3 (4.3%) deaths were due to cancer.

Circumstances:

- 59 children (85.5%) were receiving treatment for the medical condition within 48 hours of death.
- In 48 cases (69.6%), death was the expected result of the medical condition.
- Out of the 11 cases for which family compliance was necessary for treatment, 1 (9.1%) were not compliant.
- 4 children (5.8%) were not receiving treatment for the medical condition.
- 4 cases (5.8%) were associated with the H1N1 outbreak.

Sleep-Related Deaths

A total of 13 deaths (14.0%) reviewed by the CDRT were determined to be sleep-related: (Includes 3 asphyxia deaths, 5 deaths of a medical condition, 1 undetermined death and 4 deaths from other causes.)

Demographics:

- 12 deaths (92.3%) occurred to children less than one year of age.
- 7 deaths (53.8%) occurred to black children.
- 5 deaths (38.5%) occurred to white children.
- 1 death (7.7%) occurred to a Hispanic child.
- 11 deaths (84.6%) were male.

Risk factors:

- 8 children (61.5%) were not placed to sleep in a crib or bassinette.
- 6 children (46.2%) were not sleeping on their back.
- 5 children (38.5%) were placed to sleep on unsafe bedding or with toys.
- 5 children (38.5%) were sleeping with other people.
- In 1 case (7.7%) there was child abuse involved.
- In 7 cases (5.8%) other negligence was involved.

Circumstances:

- 6 children (46.2%) were found with nose and mouth unobstructed by person or object.
- 3 children (23.1%) were found on top of an object (blankets, pillows, etc.).
- 1 child (7.7%) was found under an object (blankets, towels, stuffed animals, etc.).
- 1 child (7.7%) was found pressed into an object (i.e. mattress or blankets).
- The circumstances were unknown in 2 deaths (15.4%).

Motor Vehicle Deaths

There were a total of 4 deaths (4.3%) due to motor vehicle crashes.

Demographics:

- 2 deaths (50.0%) occurred to teens aged 15 to 17.
- 2 deaths (50.0%) occurred to a child aged 1 to 4.
- 3 deaths (75.0%) were male.
- 2 deaths (50.0%) were black.
- 2 deaths (50.0%) were Hispanic.

Circumstances:

- 3 children were passengers in the vehicle.
- 1 child was the driver of the vehicle.
- Speeding was indicated in 3 incidents, and reckless driving was a factor in incident.
- Seatbelts were present and not used in 1 incident and used correctly in 1 incident.
- A child seat was used incorrectly in 1 incident, and a booster seat was used incorrectly in 1 incident.
- Driving conditions were normal in all 4 incidents.
- The child was responsible for causing the incident in 1 case, and the child's driver was responsible in 2 cases.

Fire/Burn and Drowning Deaths

There were a total of 2 deaths (2.2%) resulting from fires and drowning.

Fire/Burns

There was 1 death that resulted from fire. The circumstances were mostly unknown, but there was no working smoke detector.

Drowning

There was 1 death that resulted from drowning. The incident occurred in a natural body of water, and there were no barriers obstructing the path to the water.

Weapon-related Deaths

A total of 10 cases (10.8%) involved the use of weapons.

Demographics:

- 5 deaths (50.0%) occurred among teens aged 15 to 17 years.
- 3 deaths (30.0%) occurred among children aged 10 to 14.
- 7 deaths (70.0%) were male.
- 7 deaths (70.0%) were black.
- 3 deaths (30.0%) were white.
- 1 death (10.0%) was Hispanic.

Circumstances:

- There were 9 weapon-related homicides and 1 suicide.
- 8 cases involved firearms, and 2 cases involved a child being beaten to death.
- 4 incidents involved the use of the weapon during the commission of a crime.
- 2 incidents followed an argument.
- 2 deaths were to bystanders.
- 1 incident was gang-related.
- 1 incident was self-defense related.
- 1 incident was a drive-by shooting.
- In 1 case, someone in the child's family either had a history of weapon offenses, or had a previous member of the family die from weapon-related causes.

Acts of Omission or Commission

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. This section is designed to elucidate any human behaviors that may be involved in a child's death. A total of 24 deaths (25.8%) reviewed by the CDRT involved an act of omission (i.e. neglect) or commission (i.e. abuse or assault).

Demographics:

- 10 deaths (41.7%) occurred among infants.
- 2 deaths (8.3%) occurred among children aged 1 to 4 years.
- 6 deaths (25.0%) occurred among children aged 10 to 14 years.
- 6 deaths (25.0%) occurred among teens aged 15 to 17 years.
- 17 (70.8%) deaths were male.
- 14 (58.3%) deaths were black.
- 10 (41.7%) deaths were white.
- 3 (12.5%) deaths were Hispanic.

Circumstances:

- In 15 cases, the acts of omission or commission caused the death of the child, and among these 9 were intentional.
- Among the remaining 9 cases, the act of omission or commission contributed to the death of the child, and among these 1 was intentional.
- 2 cases involved physical child abuse.
- In both cases there was abusive head trauma.
- 1 case was an isolated incident and in 1 case the Child Protective Services (CPS) investigation revealed a history of prior abuse.
- The biological parent was responsible for the abuse in 1 case.

- The biological parent had a history of substance abuse in 1 case, and the supervisor was drug or alcohol impaired at the time of the incident in 1 case.
- There was 1 case of child neglect. It involved medical neglect perpetrated by a biological parent.
- There were 3 suicides.
- A note was left in 2 cases.
- The suicide was completely unexpected in 3 cases.
- In 1 case the child had received prior mental health services, and in 1 case the child was receiving mental health services at time of death.
- 2 cases reported an argument with the parents as a reason leading to death.

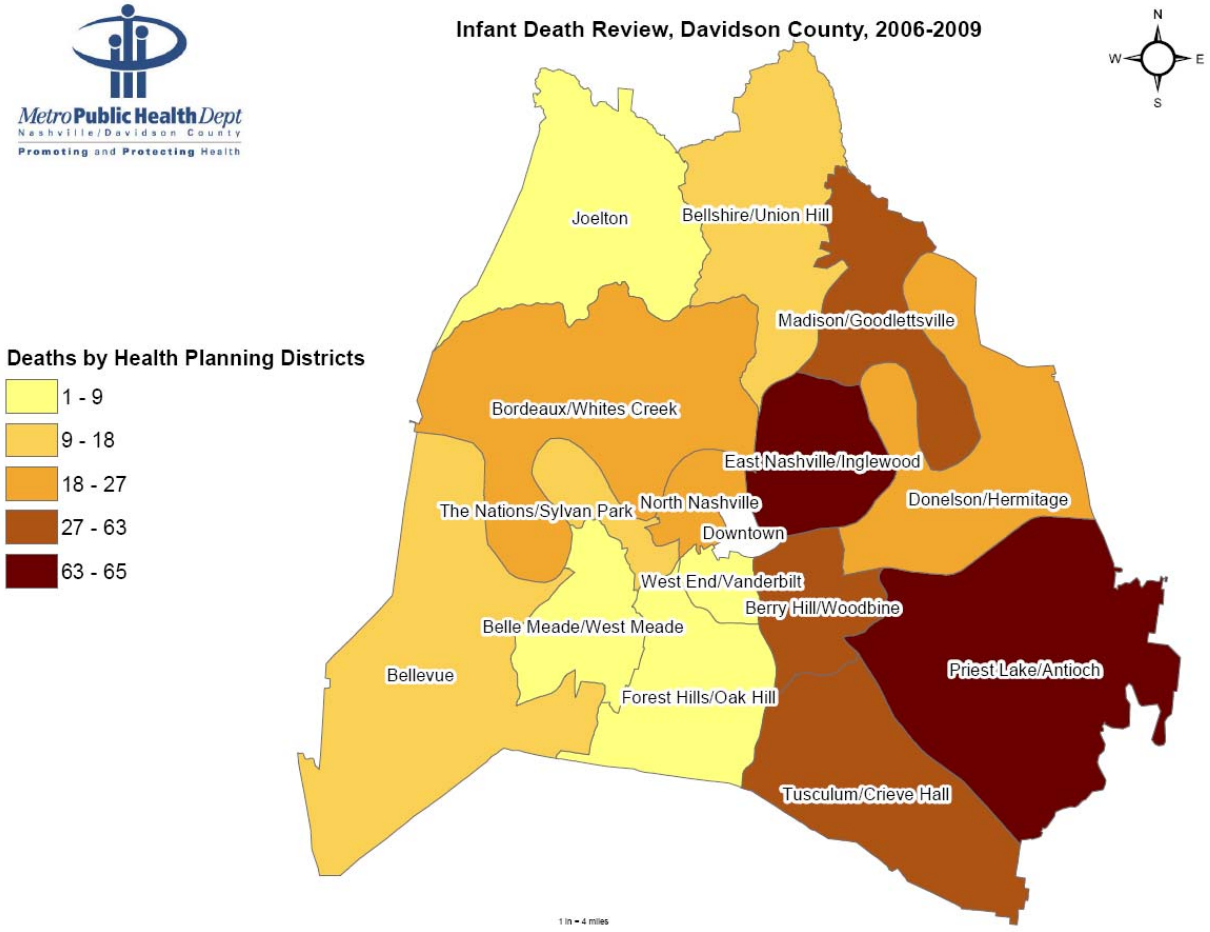
Child Deaths from 2006 to 2009

Small numbers of events often makes it difficult to discern patterns and possibilities for prevention. For this reason, all deaths reviewed by the Davidson County CDRT from 2006 through 2009 were analyzed in aggregate.

The CDRT reviewed a total of 423 deaths from 2006 to 2009.

- 100 deaths (23.7%) were judged to have been preventable, and in 35 deaths (8.3%) preventability could not be determined.
- The CDRT team disagreed with the official manner of death in 24 cases (5.7%), and disagreed with the official cause of death in 13 cases (3.1%).
- Investigation found evidence of prior abuse in 11 cases (2.6%), and action was taken by Child Protective Services (CPS) as a result of the death in 15 cases (3.5%).

The Priest Lake/Antioch, and East Nashville/Inglewood health planning districts had the greatest number of deaths (63 - 85 deaths) to children aged 0 to 17 during the years 2006 through 2009.



The next highest frequency of child deaths (27 - 63 deaths) occurred in the Madison/ Goodlettsville, Tusculum/Crieve Hall, and Berry Hill/Woodbine health planning districts.

Demographics, Risk Characteristics, and Manner of Death by Age Group

The CDRT in Davidson County reviewed a total of 423 deaths from 2006 through 2009. 291 (68.8%) of the cases reviewed were of children less than 1 year of age. Of these:

- 146 (50.2%) were white.
- 138 (47.4%) were black.
- 4 (1.4%) were Asian.
- 2 (0.7%) was a Pacific Islander.
- 47 (16.2%) were Hispanic.
- 203 (69.8%) were low birth weight (less than 2500 grams).
- 127 (43.6%) were premature (less than 37 weeks gestation).
- 55 (18.9%) mothers received late or no prenatal care.
- 48 (16.5%) experienced intrauterine smoke exposure.
- 16 (5.5%) experienced intrauterine drug exposure.

The leading causes of death for reviewed infants are as follows:

- 127 deaths (43.6%) resulted from prematurity.
- 65 deaths (22.3%) resulted from congenital anomalies.
- 33 deaths (11.3%) resulted from unknown causes.
- 16 deaths (5.5%) resulted from asphyxia.
- 6 deaths (2.1%) resulted from pneumonia.

Demographics and manner of death of the remaining 132 reviewed deaths are as follows:

- 42 deaths (9.9% of total) occurred to children aged 1 to 4:
  - 23 deaths: black
  - 18 deaths: white
  - 4 deaths: Hispanic
  - 21 deaths: male

- 17 deaths: natural
- 15 deaths: unintentional injury
- 4 deaths: homicide

- 19 deaths (4.5% of total) occurred to children aged 5 to 9:
  - 11 deaths: white
  - 8 deaths: black
  - 14 deaths: male
  - 11 deaths: natural
  - 6 deaths: unintentional injury

- 30 deaths (7.1% of total) occurred to children aged 10 to 14:
  - 22 deaths: black
  - 8 deaths: white
  - 2 deaths: Hispanic
  - 16 deaths: male
  - 19 deaths: natural
  - 3 deaths: homicide
  - 2 deaths: unintentional injury

- 41 deaths (9.7% of total) occurred to children aged 15 to 17:
  - 21 deaths: black
  - 18 deaths: white
  - 2 deaths: Asian
  - 8 deaths: Hispanic
  - 33 deaths: male
  - 18 deaths: homicide
  - 13 deaths: unintentional injury
  - 7 deaths: natural

Medical Conditions

A total of 293 deaths (69.3%) reviewed by the CDRT were determined to involve a medical condition.

Demographics:

- 240 deaths (81.9%) were to infants aged less than 1 year.
- 20 deaths (6.8%) occurred to children aged 1 to 4.
- 21 deaths (7.2%) occurred to children aged 10 to 14.
- 170 children (58.0%) were male.
- 147 children (50.2%) were black.
- 146 children (49.8%) were white.
- 43 children (14.7%) were Hispanic.

Causes of Death:

- 136 deaths (46.4%) were due to prematurity.
- 79 deaths (27.0%) were due to congenital anomalies.
- 13 deaths (4.4%) were due to cancer.
- 11 deaths (3.8%) were due to pneumonia.
- 9 deaths (3.2%) were due to neurological and seizure disorders.
- 1 death (0.3%) was due to asthma.

Circumstances:

- 249 children (85.0%) were receiving treatment for the medical condition within 48 hours of death.
- In 235 cases (80.2%), death was the expected result of the medical condition.
- 12 children (4.1%) were not receiving treatment for the medical condition.

- Out of the 57 cases for which family compliance was necessary for treatment, 5 (8.8%) were not compliant.
- Environmental tobacco exposure was a contributing factor in 7 (2.4%) deaths.

Sleep-Related Deaths

A total of 64 deaths (15.1%) reviewed by the CDRT were determined to be sleep-related: (This includes 3 SIDS deaths, 19 asphyxia deaths, 9 deaths from known medical conditions, 2 deaths of undetermined cause, and 31 deaths from other causes.)

Demographics:

- 58 deaths (90.6%) occurred to children less than one year of age.
- 33 deaths (51.6%) occurred to black children.
- 31 deaths (48.4%) occurred to white children.
- 7 deaths (10.9%) occurred to Hispanic children.
- 36 deaths (56.3%) were male.

Risk factors:

- 42 children (65.6%) were not placed to sleep in a crib or bassinette.
- 32 children (50.0%) were not sleeping on their back.
- 27 children (42.2%) were sleeping with other people.
- 22 children (34.4%) were placed to sleep on unsafe bedding or with toys.
- 3 children (4.7%) were sleeping with an obese adult.
- In 2 cases (3.1%), the supervising adult was drug impaired.

Circumstances:

- 25 children (39.1%) were found with nose and mouth unobstructed by person or object.
- 7 children (10.9%) were found wedged (i.e. between mattress and wall).
- 7 children (10.9%) were found pressed into an object (i.e. mattress or blankets).
- 4 children (6.3%) were found under an object (blankets, towels, stuffed animals, etc.).

- 3 children (4.7%) were found dead on top of an object (blankets, comforters, pillows, etc.)
- 1 child (1.6%) was found dead on top of another person.
- The circumstances were unknown in 8 deaths (12.5%).

Motor Vehicle Deaths

There were a total of 24 deaths (5.7%) due to motor vehicle crashes.

Demographics:

- 10 deaths (41.7%) occurred to teens aged 15 to 17.
- 9 deaths (37.5%) occurred to a child aged 1 to 4.
- 4 deaths (16.7%) occurred to a child aged 5 to 9.
- 15 deaths (62.5%) were male.
- 13 deaths (54.2%) were black.
- 11 deaths (45.8%) were white.
- 4 deaths (16.7%) were Hispanic.

Circumstances:

- 16 children (66.7%) were passengers in the vehicle.
- 3 children (12.5%) were drivers.
- 2 children (8.3%) were on bicycles that were hit by a vehicle.
- 3 children (12.5%) were pedestrians.
- Seatbelts were present and not used in 6 (25.0%) incidents and used incorrectly in 2 incidents (8.3%).
- A child seat was needed but not present in 2 (8.3%) incidents and used incorrectly in 1 (4.2%) incident.
- A helmet was needed but not present in 1 incident (4.2%).
- Speeding was a factor in 8 incidents (33.3%), unsafe driving was a factor in 2 incidents (8.3%), and reckless driving was involved in 3 incidents (12.5%).
- Drugs and alcohol were involved in 5 incidents (20.8%).
- The child was responsible for causing the incident in 3 cases (12.5%), and the driver of the child's vehicle was responsible in 10 cases (41.7%).
- Driving conditions were normal in 19 incidents (79.2%).

Poisoning, Fire/Burn, Drowning and Fall/Crush Deaths

There were a total of 12 deaths (2.8%) resulting from poisoning, fires, falls or crush injuries, and drownings.

Poisoning

There were 3 deaths that resulted from poisoning.

Demographics:

- 2 deaths occurred to children aged 1 to 4.
- 2 deaths were female.
- 2 deaths were white.

Circumstances:

- 1 poisoning death was a homicide, 1 was unintentional, and the intent was undetermined on 1 death.
- The poisoning involved prescription drugs in 2 cases and other substances in 1 case.
- The substances were stored in an open area in 2 cases.
- Supervision was needed but absent in 2 cases.
- The Poison Control Center was not called in any of the deaths.

Fire/Burns

There **were 4 deaths (0.9%) that resulted from fire.**

Demographics:

- 1 child was less than 1 year, 1 child was aged 1 to 4 years, 1 child was aged 5 to 9 years and 1 child was aged 10 to 14 years.
- 2 deaths were male.
- 2 deaths were black.

Circumstances:

- A working smoke detector was present in 1 case.
- None of the cases involved arson.

Fall/Crush

There was 1 death due to a fall and 3 deaths due to crush injuries. In the fall death, the child fell from stairs on to concrete. Objects causing crushing injuries include play-ground equipment and a television.

Drowning

There was 1 case of drowning. The incident occurred in a natural body of water that did not have any barriers.

Weapon-related Deaths

A total of 31 cases (7.3%) involved the use of weapons.

Demographics:

- 18 deaths (58.1%) occurred among teens aged 15 to 17 years.
- 24 deaths (77.4%) were male.
- 20 deaths (64.5%) were black.
- 10 deaths (32.6%) were white.
- 7 deaths (22.6%) were Hispanic.
- 1 death (3.2%) was Asian.

Circumstances:

- 29 weapon-related deaths were homicides, 1 was an unintentional injury, and 1 was a suicide.
- 20 cases involved firearms, 3 cases involved the use of sharp instruments, 6 cases involved a child being beaten or otherwise physically abused, and 1 case involved the use of a blunt instrument.
- Child supervision was needed but not provided in 2 cases.
- 8 incidents involved the commission of a crime.
- 7 incidents were gang-related.
- 6 incidents followed an argument.
- 3 incidents involved someone playing with the weapon.
- 2 incidents was a drive-by shooting.
- In 3 cases the victim had a history of weapon-related offenses.
- In 4 cases someone in the child's family either had a history of weapon offenses or had a previous member of the family die from weapon-related causes.

Suicide

The CDRT reviewed 6 suicides between 2006 and 2009. Of these, 5 were the result of self-induced asphyxia. 2 suicides occurred to teens aged 15 to 17 years, 2 occurred to children aged 10 to 14, and 1 was to a child aged 5 to 9 years.

Acts of Omission or Commission

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. This section is designed to elucidate any human behaviors that may be involved in a child's death. A total of 52 deaths (13.7%) reviewed by the CDRT involved an act of omission (i.e. neglect) or commission (i.e. abuse or assault).

Demographics:

- 17 deaths (32.7%) occurred among infants.
- 13 deaths (25.0%) occurred among children aged 1 to 4 years.
- 13 deaths (25.0%) occurred among teens aged 15 to 17 years.
- 33 (63.5%) deaths were male.
- 30 (57.7%) deaths were black.
- 21 (40.4%) deaths were white.
- 9 (17.3%) deaths were Hispanic.
- 1 (1.9%) death was Asian.

Circumstances:

- 3 cases involved poor or absent supervision.
- 8 cases involved child abuse.
    - 7 of those cases involved physical abuse
    - In 2 cases, the abuse was chronic with the child.
    - In 2 cases, the abuse was a pattern within the family.

- In 2 cases the abuse was an isolated incident.
- There was an open Child Protective Services (CPS) case at the time of 2 deaths, and children were removed from the home in 2 cases.
- The biological parent was responsible for the abuse in 6 cases and had a history of previous child maltreatment as a perpetrator in 4 cases.
- The biological parent had a history of substance abuse in 3 cases.

- 7 cases involved child neglect.
  - 3 cases involved medical neglect.
  - 2 cases involved a failure to provide necessities.
  - 2 cases involved a failure to protect from hazards.
  - 1 case involved abandonment.
  - The neglect was chronic with the child in 3 cases and a pattern in the family in 1 case.
  - 3 cases had open CPS investigations at time of death, and CPS took action as a result of the death in 5 cases.
  - The biological parent was responsible for the neglect in all 7 cases.
- The acts of omission or commission caused the death of the child in 29 incidents, and among these 21 were intentional.
- The acts of omission or commission contributed to the death of the child in 26 incidents, and among these 4 were intentional.

Child Death Review Team Members For 2009

Kimberlee Wyche-Etheridge, M.D., Child Death Review Team, Chair
Director, Bureau of Family, Youth and Infant Health
Metro Public Health Department

Adele Lewis, M.D., Child Death Review Team, Co-Chair
Medical Examiner

William Paul, M.D.
Director, Metro Public Health Department

Xylina Bean, M.D.
Meharry Medical College

Bonnie Beneke, L.C.S.W
TN Chapter of Children's Advocacy Centers

Christy Blazer
Department of Children's Services

Amy Campbell-Pittz
Department of Children's Services

Cristina Estrada, M.D.
Vanderbilt University

Debi Hoffman
Metro Public Health Department

Det. Selene Julia
Metro Police Department

Timothy Lankford
Nashville Fire Department

Amy McMaster, M.D.
Medical Examiner

Michael Meadors, M.D.
Baptist Hospital

Claudia Padfield
Department of Children's Services

Sgt. Daniel Postiglione
Metro Police Department

Carolyn Riviere, R.N.
Metro Public Health Department

Pamela Taylor, B.S.
Metro Public Health Department

Thomas Abramo, M.D.
Vanderbilt Medical Center

Vickie Beaver, R.N.
Nurses for Newborns

Vickie Blair-Fleming, L.M.S.W
Metro Public Schools

Susan Campbell, M.D.
Middle TN Neonatology Associates

Det. Ron Carter
Metro Police Department

Karen Grimm
Metro Public Health Department

Atty. Brian Holmgren
Assistant District Attorney

Sandra Kaylor, R.N.
Metro Public Health Department

Deborah Lowen, M.D.
Our Kids

Brook McKelvey, M.P.H.
Metro Public Health Department

Atty. Katy Miller
Assistant District Attorney

Janet Nielsen
Juvenile Court

Michelle Rikli, L.C.S.W
Metro Social Services

Sue Ross, R.N.C., P.N.P.
Our Kids

Carolyn Tucker, M.S.
Department of Children's Services

Appendix

1. Characteristics of Infant Deaths by Manner of Death Listed on Death Certificate, Davidson County, 2009 and 2006-2009

	Manner of Death on Death Certificate						
	Natural	Unintentional Injury	Homicide	Undetermined	Unknown	Total	
2009	N	N	N	N	N	N	%
Deaths Reviewed	45	2	2	6	3	58	100.0
Premature (<37 weeks)	25	0	0	3	3	31	53.4
Low Birth Weight (<2500 grams)	27	0	1	3	3	34	58.6
Intrauterine Smoke Exposure	7	1	0	1	1	10	17.2
Intrauterine Drug Exposure	1	0	0	1	0	2	3.4
Late(>6 weeks) or No Prenatal Care	6	0	0	1	0	7	12.1
2006-2009							
Deaths Reviewed	225	18	5	33	10	291	100.0
Premature (<37 weeks)	177	5	0	7	9	198	68.0
Low Birth Weight (<2500 grams)	177	5	2	10	9	203	69.8
Intrauterine Smoke Exposure	31	5	0	11	1	48	16.5
Intrauterine Drug Exposure	12	1	0	3	0	16	5.5
Late(>6 weeks) or No Prenatal Care	41	4	1	7	2	55	18.9

*Categories are not mutually exclusive.

2. Factors Involved in Sleep-Related Deaths By Age Group, Davidson County, 2009 and 2006-2009

	Age Group							
2009	**0-1 mos**	**2-3 mos**	**4-5 mos**	**6-7 mos**	**8-11 mos**	**1-4 years**	**Total**	**%**
Deaths Reviewed	2	1	5	3	1	1	13	100.0
Not in a crib or bassinette	1	1	5	1	0	0	8	61.5
Not sleeping on back	0	1	3	1	1	0	6	46.2
Placed on unsafe bedding or with toys	2	0	2	1	0	0	5	38.5
Sleeping with other people	1	0	3	1	0	0	5	38.5
Obese adult sleeping with child	0	0	0	0	0	0	0	0.0
Adult was alcohol or drug impaired	0	0	0	0	0	0	0	0.0
2006-2009								
Deaths Reviewed	14	17	12	7	8	6	64	100.0
Not in a crib or bassinette	10	11	9	4	4	4	42	65.6
Not sleeping on back	6	12	8	3	3	0	32	50.0
Placed on unsafe bedding or with toys	4	9	5	3	0	1	22	34.4
Sleeping with other people	7	9	4	2	3	2	27	42.2
Obese adult sleeping with child	1	2	0	0	0	0	3	4.7
Adult was alcohol or drug impaired	0	0	0	0	0	2	2	3.1

*Categories are not mutually exclusive

Appendix

3. Manner of Death by Age Group, Davidson County, 2009 and 2006-2009

	Age Group					
2009						
Manner	**<1**	**1-4**	**5-9**	**10-14**	**15-17**	**Total**
Natural	45	5	6	5	2	63
Unintentional Injury	2	2	1	0	3	8
Suicide	0	0	0	3	0	3
Homicide	2	0	0	2	5	9
Undetermined	6	0	0	0	0	6
Unknown	3	0	0	0	1	4
Total	58	7	7	10	11	93
2006-2009						
Natural	225	17	11	19	7	279
Unintentional Injury	18	15	6	2	13	54
Suicide	0	0	1	3	2	6
Homicide	5	4	1	3	18	31
Undetermined	33	6	0	2	0	41
Unknown	10	0	0	1	1	12
Total	291	42	19	30	41	423

Appendix

4. Deaths by Manner and Preventability, Davidson County, 2009 and 2006-2009

	Could the Death Have Been Prevented?				
2009					
Manner	**No**	**Yes**	**Could not determine**	**Unknown**	**Total**
Natural	60	3	0	0	63
Unintentional Injury	0	8	0	0	8
Suicide	0	3	0	0	3
Homicide	0	9	0	0	9
Undetermined	1	2	3	0	6
Unknown	4	0	0	0	4
Total	65	25	3	0	93
2006-2009					
Natural	267	5	5	2	279
Unintentional Injury	0	54	0	0	54
Suicide	0	6	0	0	6
Homicide	0	31	0	0	31
Undetermined	7	4	30	0	41
Unknown	12	0	0	0	12
Total	286	100	35	2	423

Appendix

5. Acts of Omission and Commission By Age Group, Davidson County, 2009 and 2006-2009

2009	Deaths Reviewed	Poor/Absent Supervision	Child Abuse	Child Neglect	Other Negligence	Assault (not child abuse)	Suicide	Other
<1 year	10	0	2	0	7	0	0	1
1-4 years	2	0	0	0	2	0	0	0
5-9 years	0	0	0	0	0	0	0	0
10-14 years	6	0	0	1	0	1	3	1
15-17 Years	6	0	0	0	1	3	0	2
Total	24	0	2	1	10	4	3	4
2006-2009								
<1 year	17	0	5	3	9	0	0	1
1-4 years	13	2	3	2	6	0	0	1
5-9 years	1	0	0	0	1	0	0	0
10-14 years	8	1	0	2	0	1	3	2
15-17 Years	13	0	0	0	2	6	0	5
Total	52	3	8	7	18	7	3	9

*Categories are not mutually exclusive