



**Hamilton County
Family and Children First Council**

**Child Fatality
Review Team
Annual Report
2006**



Child Fatality Review Team 2006

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I. INTRODUCTION

The Hamilton County Child Fatality Review Team, which operates under the auspices of the Hamilton County Family and Children First Council, officially began reviewing cases on January 1, 1996. The following report represents the eleventh full year of child death reviews by the Hamilton County Team.

The purpose of the Hamilton County Child Fatality Review Team is to prevent child deaths by examining the cause of child deaths in the aggregate, making policy recommendations resulting from review of child deaths in Hamilton County and by increasing coordination and communication between agencies and systems.

The main goals of the Team are:

- To collect uniform statistics on all deaths among children aged 17 and under in Hamilton County
- To accurately identify and document the cause of death of all Hamilton County children
- To identify trends among child deaths in Hamilton County
- To identify causes of death that may be preventable, and make subsequent recommendations about policy changes for public health or public safety issues for Hamilton County
- To develop uniform protocols and procedures for investigating child deaths

CHILD FATALITY TEAM MEMBERSHIP

Regular Team members are representatives of the following agencies: Children's Services of Hamilton County Department of Job and Family Services, Children's Hospital Medical Center, Cincinnati Health Department, Cincinnati Fire Department, Cincinnati Police Division, Hamilton County Coroner, Hamilton County Prosecutor, Hamilton County Sheriff, Hamilton County General Health District, Hamilton County Juvenile Court, Hamilton County Mental Health and Recovery Services Board and the Hamilton County Family and Children First Council (FCFC). A list of the Hamilton County Child Fatality Review Team members can be found on the first page of this report.

Meetings are closed to the general public and the media. Only Team members and invited guests are permitted to attend Team meetings. Representatives of other agencies and organizations are occasionally invited to attend when a relevant case is being discussed.

CASES REVIEWED

The Hamilton County Child Fatality Review Team screens all deaths of children age 17 years or younger who are residents of Hamilton County at the time of death. The Team limits death reviews to residents of Hamilton County and does not review deaths of non-residents who die in Hamilton County. Deaths of Hamilton County children in the custody of the Hamilton County Department of Job and Family Services or under the jurisdiction of Hamilton County Juvenile Court are examined even if the child is living outside of Hamilton County at the time of death.

Death certificates of all Hamilton County residents under the age of 18 are sent to the Council office by each of the Health Departments in Hamilton County. The FCFC records and stores demographic data about all the child deaths, such as gender, race, age, residence, etc. The FCFC then sends the death certificates to the Coroner's office, who then reviews each death certificate to categorize the cause of death and to determine whether it qualifies for a full team review by meeting any of the following criteria:

- Homicide
- Suicide
- Unintentional injuries (accidents)
- Undetermined, including presumed SIDS
- Unexpected outcomes (i.e. unexpected death from identified medical causes)
- Unexpected clusters (unusual frequency of deaths from identified medical causes)
- All cases with previous or current Children's Services involvement
- All cases investigated by law enforcement

If the Coroner's office determines that the case meets any of the criteria listed above, the case is scheduled for a full Team review. Case names are also sent to JFS to determine if there has been any involvement with Children's Services at any time. If there has, that case is automatically put on the list for a full team review.

Additionally, any Team member can request a full team review of any case they feel would benefit from a full review, whether or not it meets the above criteria.

Full team reviews involve an in-depth examination of the death by the entire Team, with Team members reporting on any relevant information they might have about the death. The Team then tries to reach a conclusion about whether or not the death was preventable, based on the knowledge they have of the circumstances leading up to the death. Cases receiving full death reviews are discussed in Section III of this report.

II. CHILD DEATHS 2006

In 2006, there were 166 Hamilton County residents age 17 or younger who died. This represents 11.2% fewer child deaths than in 2005, but 12.9% more deaths than the average of 147 deaths per year between 1996 and 2005. The number of deaths in each of the last three years has been higher than in any year between 1996 and 2003.

Hamilton County Child Deaths by Year

Year	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Hamilton County Child Deaths	138	139	153	135	144	126	138	145	168	187	166

This increase in the number of child deaths occurred during the same time period that Hamilton County’s total population under age 18 decreased. These two trends resulted in an increase in the child death rate, as seen in the table below.

Hamilton County Trends in Child Deaths, Child Population, and Child Death Rate, 2000 - 2005

Year	2000	2001	2002	2003	2004	2005 ¹
Child Deaths	144	126	138	145	168	187
Population < 18	218,174	213,041	209,858	206,490	203,286	200,874
Child Death Rate (per 10,000)	6.6	5.9	6.6	7.0	8.3	9.3

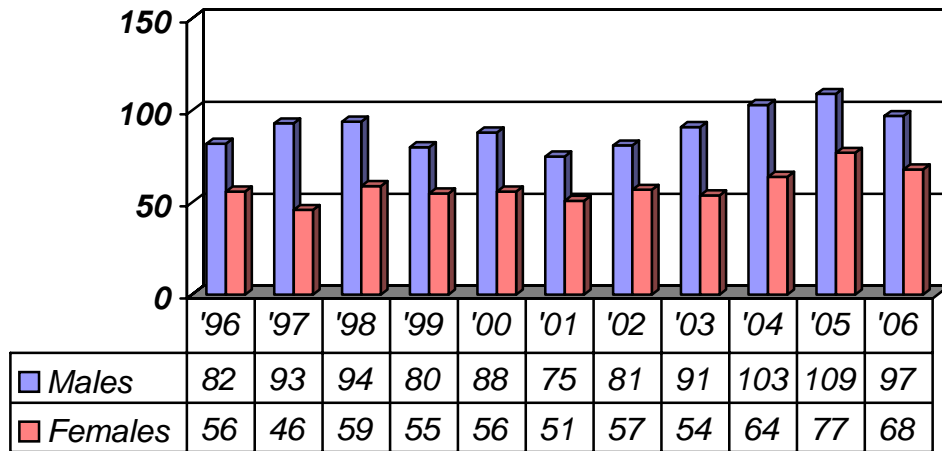
1. It was not possible to compute the child death rate in 2006, since no estimates for the population < 18 years old in Hamilton County were available as of this writing.

Source of population estimates: U.S. Census Bureau, Population Estimates Branch, Annual Estimates of the Population by Selected Age Groups and Sex for Counties, April 1, 2000 to July 1, 2005.

GENDER

Of the 166 child deaths in 2006 in Hamilton County, 97 (58.4%) were males and 68 (41.0 %) were females; the gender of 1 (0.6%) could not be determined. Male deaths consistently outnumber female deaths in Hamilton County, as they do throughout the country, with an average of 61% between 1996 and 2006.

Hamilton County Deaths by Gender



*Gender could not be determined for one death in 2004, 2005 and 2006.

RACE

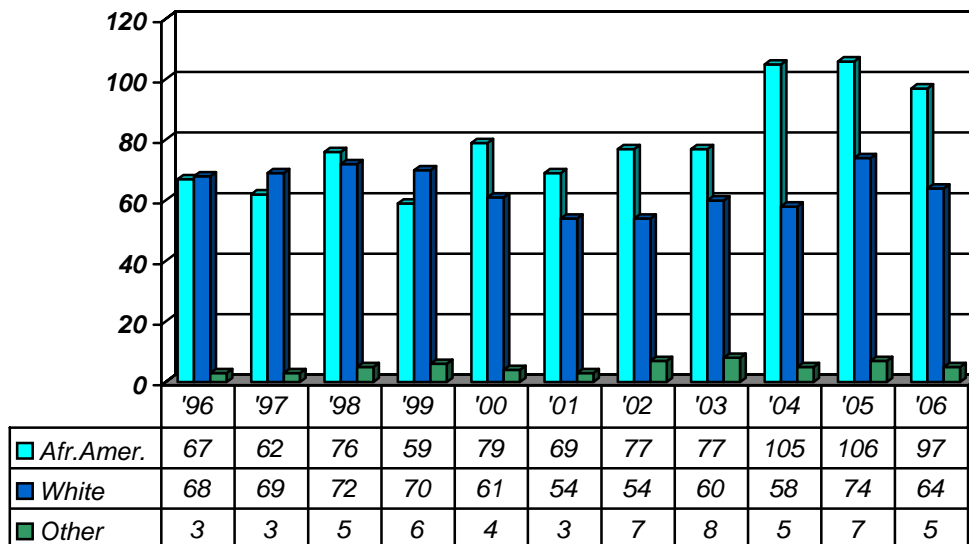
Of the 166 deaths in 2006, most of the children who died were either African American (58.4%) or White (38.6%). Two children (1.2%) were of Asian origins and the race of three children (1.8%) was unknown. Hispanic is not used as a racial category on the death certificates.

2006 Hamilton County Child Deaths by Race

	Number/Percent of Deaths
African American	97 (58.4 %)
White	64 (38.5%)
Unknown	3 (1.8%)
Asian	2 (1.2%)

As in 2004 and 2005, the number of African American deaths in 2006 was much higher than in previous years, as can be seen in the following chart:

Number of Hamilton County Child Deaths by Race 1996 to 2006



Since 2000, African Americans have consistently accounted for over 50% of yearly child deaths, as can be seen in the chart below. The percentage of African American deaths has remained fairly stable from 2000 through 2006, with the exception of 2004, where the percentage rose to 62.5%. The number of African American deaths dropped by 8.5% between 2005 and 2006. However, since the overall number of deaths

dropped by a similar percent, the percentage of African American deaths was nearly the same as in 2005.

Percentage of Hamilton County Child Deaths by Race 2000-2006

Year	AA	White	Other
2000	54.9%	42.4%	2.8%
2001	54.8%	42.9%	2.4%
2002	55.8%	39.1%	5.1%
2003	53.1%	41.4%	5.6%
2004	62.5%	34.5%	3.0%
2005	56.7%	39.6%	3.7%
2006	58.4%	38.5%	3.0%

A comparison between the racial composition of Hamilton County’s population and child deaths indicates that child deaths are disproportionately high among African Americans. Although 30.7 % of the county’s children under age 18 were African American in 2005, the most recent year available, 58.4% of child deaths in 2006 were African American. In addition, the child death rate for African Americans was more than three times the rate for whites – 15.8 deaths per 10,000 children under age 18 compared to 5.0 deaths per 10,000.

Racial Composition of Population and Child Deaths in Hamilton County

	AA	White	Other
Total population, 2005	24.6%	71.2%	4.2%
Population <18, 2005	30.7%	63.6%	5.7%
% of child deaths, 2006	58.4%	38.6%	3.0%
Child death rate, per 10,000 population < 18¹	15.8	5.0	4.4 ²

1. Child death rates were computed using 2006 deaths and 2005 population estimates, which were the most recent available as of this writing.

2. Includes 3 deaths of unknown race.

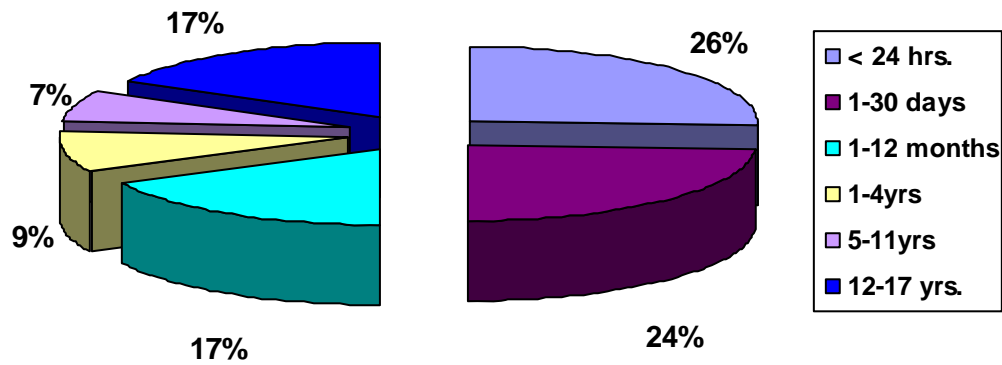
Source of population estimates: U.S. Census Bureau, 2005 American Community Survey. Data are limited to the household population and exclude the population living in institutions, college dormitories, and other group quarters.

AGE

Children aged one month or younger accounted for half of the 166 child deaths in 2006, and children less than a year old accounted for two-thirds: 43 children (26%) were

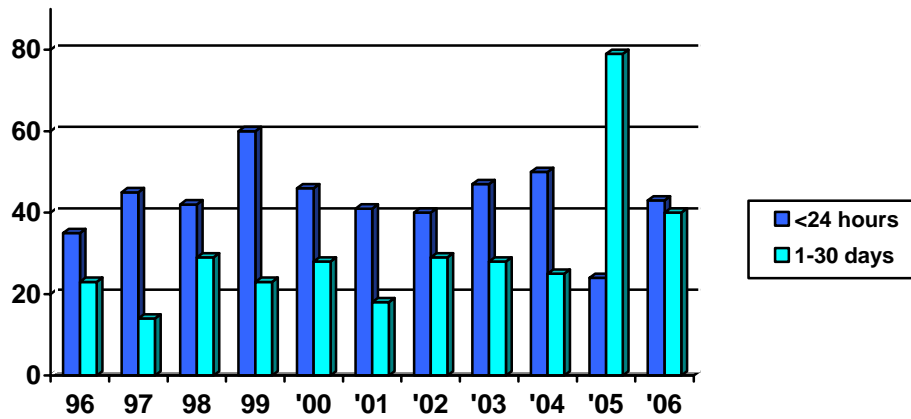
less than 24 hours old at the time of their death, 40 (24%) were between the ages of 1 and 30 days, and 29 children (17%) were between the ages of 1 month and twelve months. Fifteen (9%) were between the ages of one to four years, 11 children (7%) were between five and eleven years and 28 (17%) were between 12 and 17 years of age.

Percent of Child Deaths by Age 2006
(n=166)



For all but one year between 1996 and 2006, the number of child deaths under 24 hours exceeded deaths between the ages of one and thirty days, although in 2006, the numbers are close, as is illustrated in the following chart:

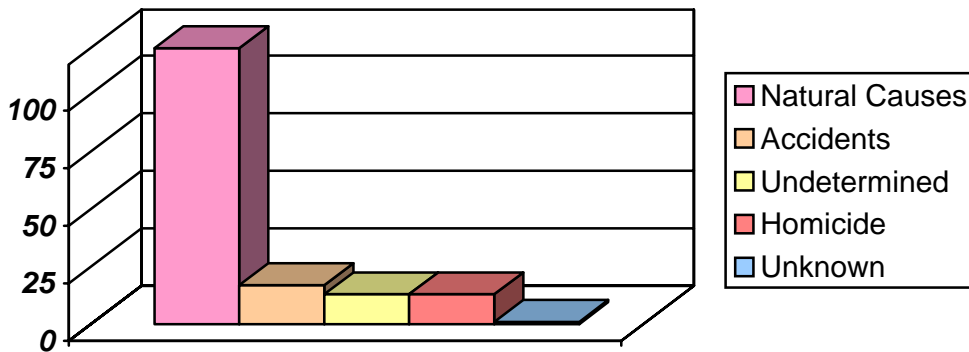
Deaths < 24 Hours and 1-30 Days 1996-2006



CAUSE OF DEATH

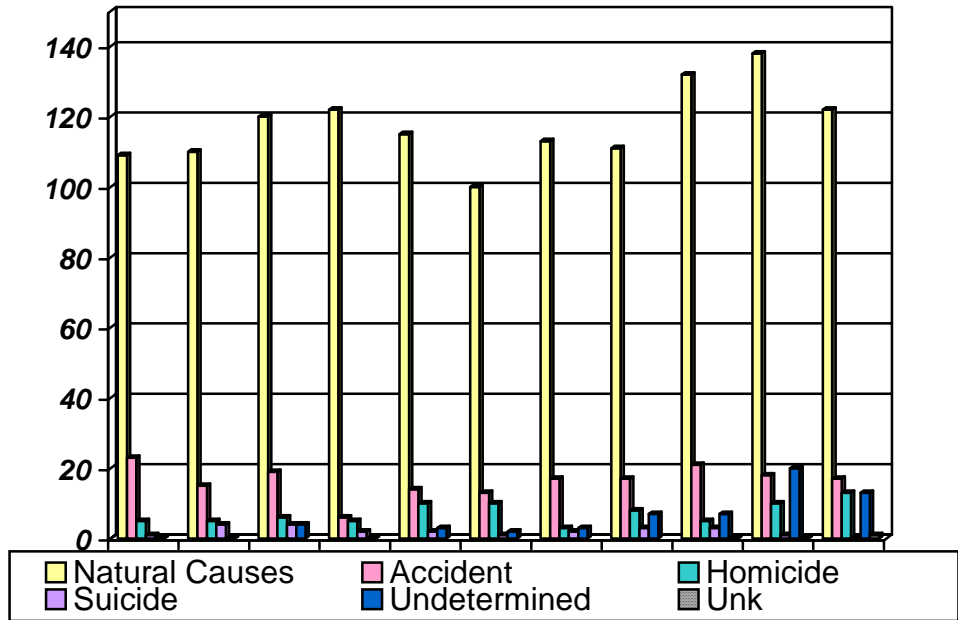
As shown in the following figure, causes of death for Hamilton County children as classified by the Coroner during 2006 were as follows: 73.5% (n=122) were from natural causes, 10.2% (n=17) were due to accidents, 7.8% (n=13) were a result of homicides, 7.8% (n=13) could not be determined and 0.6% (n=1) was unknown cause of death.

Causes of All Child Deaths 2006 by Number



The chart below delineates causes of all deaths from 1996 through 2006.

Cause of Child Deaths by Number 1996-2006

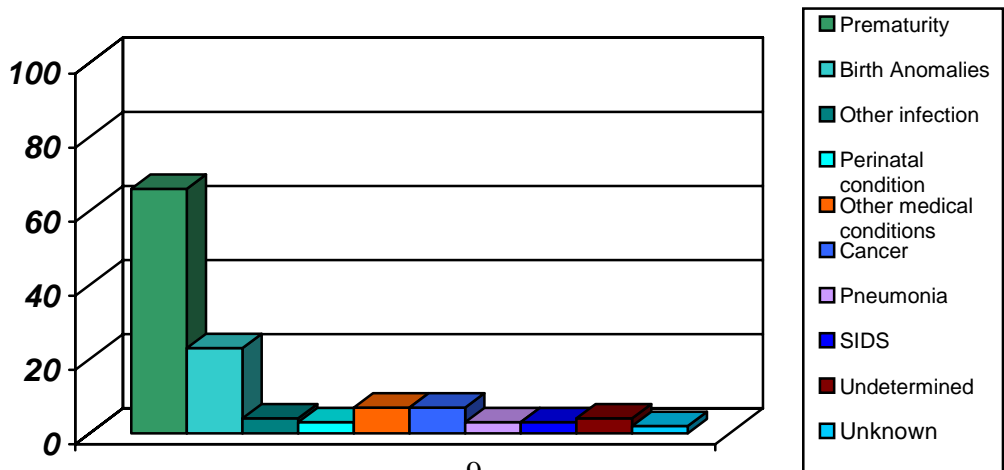


CAUSES OF NATURAL DEATHS

As in past years, of the 166 deaths in 2006, 122 were from “natural” causes (73.5%). As illustrated in the following table, “Natural” includes prematurity (66), birth congenital anomalies (23), other infection (4), other perinatal conditions (3), pneumonia (3), cancer (7), other medical causes (7), Undetermined Medical Cause (4), SIDS (3) and Unknown(2). As in previous years, prematurity accounts for the vast majority of natural deaths, with congenital/birth anomalies being second.

Prematurity continues to be the major reason for the deaths of infants in Hamilton County, accounting for 66 of 112 deaths (58.9%) before one year of age in 2006. Of the infants dying from prematurity, 53.0% (35 children) were African American, 43.9 % (29 children) were White, and the race of 3.0% (2 children) was unknown.

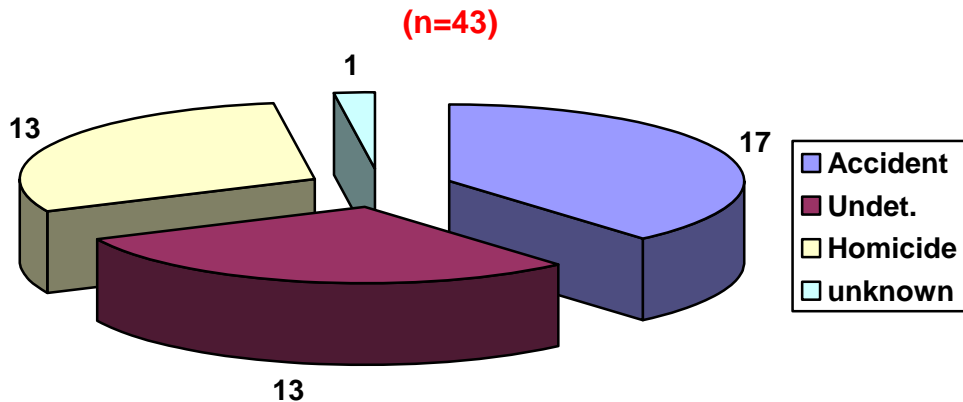
Causes of 122 Natural Deaths 2006 by Number



CAUSES OF DEATHS NOT CLASSIFIED AS NATURAL

Overall of the 166 deaths, 44 (26.5%) were not classified as natural. As shown in the following chart, of the 166 total deaths, 17 children (10.2%) died as a result of an accident in 2006, the causes of deaths of 13 (7.8%) children could not be determined, 13 children died as a result of a homicide (7.8%) and one cause of death was unknown.

Deaths Not Classified as Natural by Number 2006



DISTRIBUTION OF DEATHS BY RESIDENCE

Residence at the time of death is reported on the death certificate. According to the death certificates, of the 166 child deaths in Hamilton County, 128 (77.1%) occurred to residents of the city of Cincinnati. By comparison, 36.2% of the county's children under age 18 lived in Cincinnati (U.S. Census Bureau, 2005 American Community Survey), indicating that child deaths are overrepresented in Cincinnati. Four deaths occurred to residents of Norwood, while three occurred to residents of Cleves and Loveland each and two deaths each occurred to residents of Colerain Township, Deer Park, Forest Park, Green Township, Madeira, Mount Healthy and Springfield Township. All other locales had one or no child resident deaths in 2006.

Of the 112 children under the age of one who died, 79.5% (n=89) were from the city of Cincinnati. (The total number of infants in Cincinnati in 2006 is not available as of this writing.)

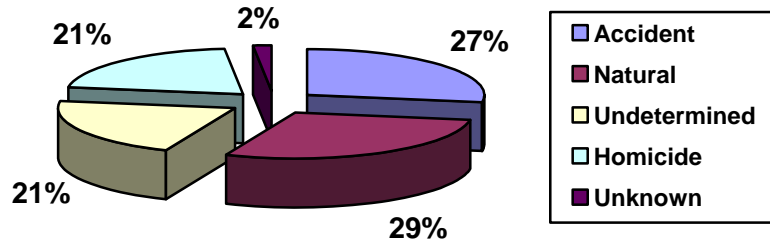
III. FULLY REVIEWED CASES

Only deaths meeting specified criteria are reviewed in full by the entire Team. Those criteria are listed in Section I of this report and include unintentional injuries, homicides, suicides, undetermined causes of death, both those consistent with SIDS and those that are not consistent with SIDS, and all cases known at any time to Hamilton County Children's Services. Of the 166 child deaths in Hamilton County in 2006, 62 met the criteria for full review (37.3%). Cases subject to full team review are discussed in detail by the Team, who also examines any relevant information it can obtain about the death and circumstances leading to the death. The Team draws conclusions when

possible about preventability of each fully reviewed death. The percentage of cases qualifying for full review in the previous years has ranged from 23% to 41%.

Of the 62 cases that met the criteria for full review in 2006, 17 (27.4%) of the children died as a result of an accident, 13 (21.0%) children died as a result of a homicide, 13 (21.0%) cases were undetermined; 18 cases (29.0%) died of natural causes and the cause of death of 1 (1.6%) was unknown.

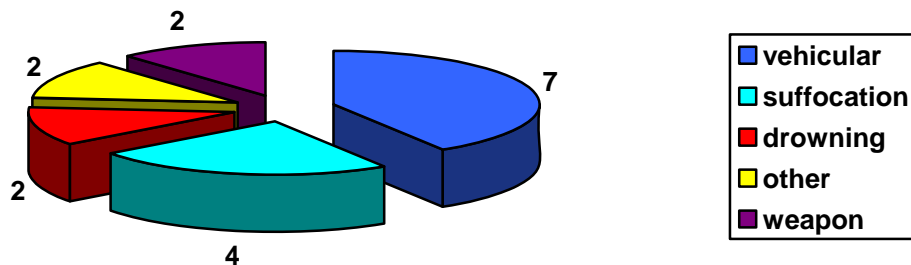
Cause of Death of Cases Fully Reviewed 2006
(n=62)



ACCIDENTAL DEATHS

Of the 17 children who died from accidental causes, the mechanism of injury was as follows: 4 died from suffocation or strangulation, 2 died from drowning, 7 died in a motor vehicle accident, 2 died from an injury from a weapon and 2 died through some other means.

Causes of Accidental Deaths in 2006 by Number



Of the four accidental deaths that were due to suffocation or strangulation, two occurred while the infant was sleeping with an adult, one of the deaths occurred while the child was sleeping surrounded by stuffed animals and one occurred in an adult bed. All of the suffocations/strangulations occurred to children under the age of 11 months.

Of the two drowning incidents, one was in a bathtub and one was in an above ground pool. One of these children was 12 months of age and one was 16 years of age.

Of the seven children killed in traffic accidents, three were passengers in a car/van, two were pedestrians, one was a driver and one was on a bicycle. Five were teenagers and two were between the ages of 4 and 9 years of age.

The two children killed accidentally with weapons were killed with a handgun and a shotgun. Both were teenagers.

The two Other Causes of accidental death were both food related: one was due to choking on food and the other had to do with an allergic reaction to food that had been ingested.

Of the 17 accidental deaths, six of the accidental deaths occurred on a roadway, four occurred in the child's home, three occurred in a friend's home, one occurred in a licensed foster care home and 3 occurred at other places.

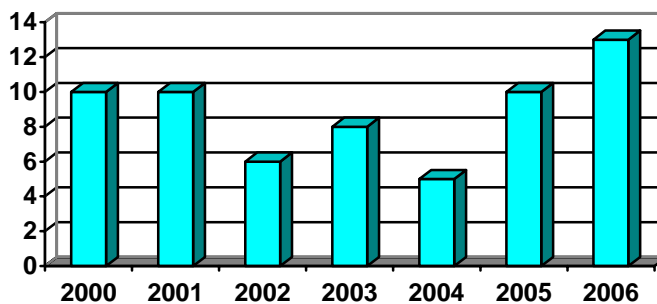
HOMICIDES/CRIMINAL CHARGES

The cause of death was ruled a homicide in 13 cases in 2006. All of the deaths occurred to African American children. Twelve victims were male and one was female. Eleven of the victims were teenagers and two were seven years of age or less. Criminal charges were filed in four cases. Four of the perpetrators were acquaintances, three were strangers, two were mother's partner, one was a biological parent and the perpetrator was unknown in three instances.

Firearms were the weapon used in ten of the homicides, a body part was the weapon in two instances, and the weapon could not be determined in one instance. Two of the 13 homicide cases were determined by the Team to be due to child abuse.

This is the largest number of homicides that have occurred in the past six years. The following chart illustrates the number of homicides that occurred to children since 2000:

Number of Homicides 2000-2006



UNDETERMINED CAUSE OF DEATH

The manner of the cause of death is classified Undetermined when it is not clear exactly what caused the death. In most instances of Undetermined deaths, there are possible explanations for the death but they cannot be conclusively validated so the cause

of death is officially listed as Undetermined manner. This is different than deaths that are classified as Natural Manner with the cause being Undetermined. In the case of a death consistent with Sudden Infant Death Syndrome (SIDS) though there are no specific physical criteria that are specifically attributable to SIDS it is believed that the child probably died of SIDS because there are no other factors present that could possibly explain the death. Thus the death is classified as death from a Natural Manner, but the cause is Undetermined; in the form required by the state, however, the cause of those deaths is marked as SIDS, with the manner being natural.

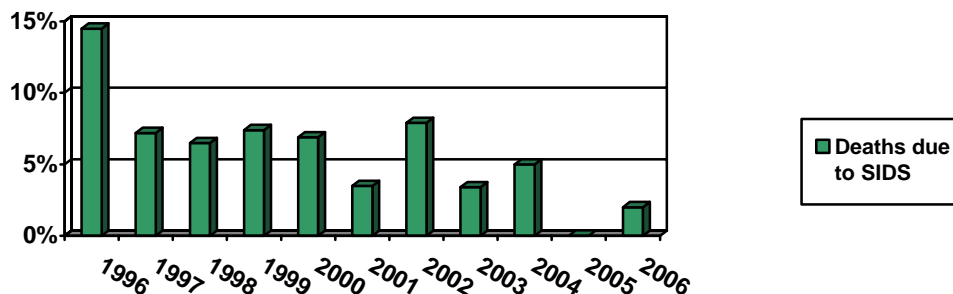
In 2006, of the 166 total deaths, there were 13 deaths (7.8%) that were classified as having died from an Undetermined Manner. 84.6% (n=11) of those cases were under the age of four months; the other two were 1 and 2 years of age. Nine were female and four were male. Eight children (61.5%) with an Undetermined manner of death were African American and five (38.5%) were White. Twelve of the 13 were not sleeping in a crib at the time of death; it is unknown where the other child was sleeping. Seven were sleeping with an adult at the time of their death.

SIDS DEATHS

As a diagnosis of exclusion, deaths attributed to Sudden Infant Death Syndrome (SIDS) require a full investigation of the circumstances surrounding the death including a recognized scenario. During 2006 only three of the Hamilton County Fatality Review cases had such a characteristic scenario. All three were males and all three were three months of age or younger. Two were sleeping in a crib and one was in a child car seat.

The number of cases attributable to SIDS is much less than in previous years. This may be partially attributable to the fact that a new Coroner took office in 2005 and the department now uses stricter criteria for assigning SIDS as the cause of death than the previous Coroner.

Percentage of SIDS Deaths 1996-2006



The decline in SIDS rates and the increase in the death rate of infants dying from Undetermined causes has been noted nationally. In a recent article published in the Journal of Epidemiology by Shapiro- Mendoza, Tomashek, Anderson and Wingo, the following was stated:

“From 1999–2001, the decline in SIDS rates was offset by increasing rates of cause unknown/unspecified and ASSB. Changes in the cause-specific age at death and month of death distributions suggest that cases once reported as SIDS are now being reported as ASSB (accidental suffocation

and strangulation) and cause unknown/unspecified. Most of the decline in SIDS rates since 1999 is likely due to increased reporting of cause unknown/unspecified and ASSB.”

SLEEPING ARRANGEMENTS

Inappropriate sleeping arrangements were identified by the team during full review as being present in the death of 24 infants in 2006. Though it could not be conclusively proven in all 24 cases that inappropriate sleeping arrangements were responsible for the deaths, the team considered inappropriate sleeping arrangements as probably contributing to, if not clearly causing, the death in 24 instances. Inappropriate sleeping arrangements include sleeping in something other than a crib, such as adult beds or couches, co-bedding with adults or other children or animals and/or being surrounded by soft bedding, blankets or pillows.

CASES KNOWN TO CHILDREN’S SERVICES AND/OR HELP ME GROW

In 2006, 46.8% (n=29) of those receiving full team reviews had been known in the past twelve months to Children's Services. All cases that have had previous contact with Children’s Services automatically receive a full review.

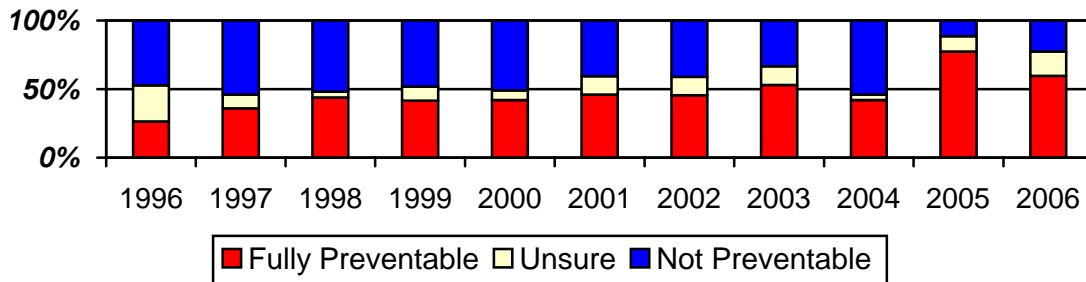
Of the 166 child deaths in 2006, 20 (12.0%) had received some kind of Help Me Grow services. Help Me Grow is a large county-wide home visitation program that provides new born home visits, support and service coordination to at risk pregnant women and families of children at risk or children with developmental disabilities under the age of 3.

PREVENTABILITY

In every case fully reviewed by the Team, the Team makes a determination about whether the death was preventable. The Hamilton County Child Fatality Review Team has defined preventable death in the following manner: "A preventable death is one in which, with retrospective analysis, a reasonable intervention *probably* would have prevented the death." The term "reasonable" is what the Team takes most into consideration in making this determination.

Of the 62 cases fully reviewed in 2006 by the Team, 59.7% (n=37) cases were considered preventable, 22.6% (n=14) were considered not preventable and in 17.7% (n=11) the Team did not have enough information to make a determination. This is the second highest percentage of cases the Team has identified as preventable since its inception in 1996, as can be seen in the following chart:

Preventability of Child Deaths 1996-2006



Though in most instances the Team reaches consensus about this category, on the rare occasions where consensus is not possible the majority opinion of the Team members was adopted by the Team.

IV. TEAM RECOMMENDATIONS

At the conclusion of every case receiving full team review, the Team decides whether any recommendations should result from the death review. In most instances where the death was categorized as being preventable some recommendations were made.

The following is a summary of the recommendations made by the Child Fatality Review Team as a result of reviews of deaths in 2006.

PUBLIC EDUCATION

As usual, the vast majority of the Team recommendations have to do with increasing public awareness of the importance of some well known safety precautions. Almost all of the recommendations below have been made in previous years as well. Deaths reviewed in 2006 resulted in recommendations to reinforce public education in the following areas:

SLEEPING CONDITIONS

Once again, the issue of inappropriate bedding or problems resulting from co-bedding was a significant factor in many cases. This year there were 24 deaths in which the Team determined that sleeping arrangements were possibly – and sometimes very clearly – a factor in the child’s death. Specifically, the recommendations about sleeping conditions fell into increasing public education in the following four categories:

- The danger of co-bedding (i.e. bed sharing by an infant and an adult)
- The importance of appropriate bedding (i.e. not surrounded by pillows, blankets, sleeping on firm mattresses, etc.)
- The importance of infants sleeping in cribs
- The importance of placing babies on their backs while sleeping

VEHICULAR ACCIDENTS

- Wear seat belts
- Young children should always be in car seats
- Hold onto toddlers tightly; keep young children close by when near traffic
- Be especially careful with your car if there are toddlers nearby
- Don't drive recklessly
- Wear helmet when riding a bicycle
- Make sure children understand they should always cross the street at crosswalks

SUPERVISION

- Be careful who you leave your child with
- Monitor your child or teenager's associates

DROWNING

- Watch children intently when anywhere near pools or bodies of water
- Give children floatation devices when they request it, no matter how old they are
- Don't leave toddlers unsupervised in the bathtub even for a moment

GUNS

- Don't leave loaded firearms accessible to children or teenagers
- Don't get involved in altercations where guns are being used
- Don't commit crimes
- Don't associate with drug dealers

OTHER

- Do not give infants over the counter drugs
- Over the counter meds for children should have dramatically different packaging than adult medication packaging
- State of Ohio should have protocol for how child deaths are investigated so that Ohio counties all follow same protocol and investigatory procedures
- Comply with doctor's follow up orders after doctor visits

V. TRENDS AND CONCLUSIONS

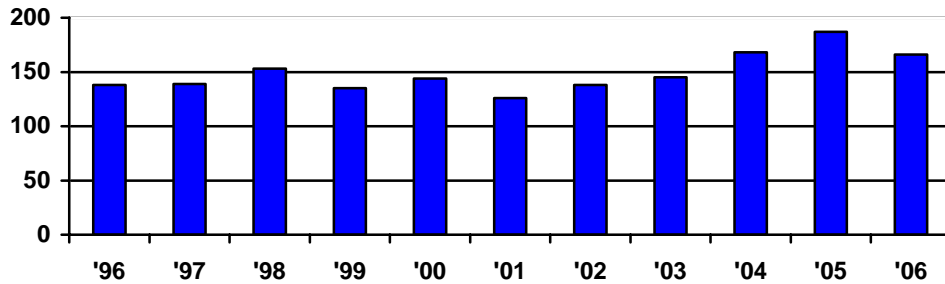
This is the eleventh consecutive year that the Hamilton County Child Fatality Review Team has reviewed child deaths in Hamilton County. For the most part, the aggregate data is remarkably similar to past years, although some data from 2006 was notably different from years past. Data of particular interest include the following:

TOTAL NUMBER OF CHILD DEATHS

Although the number of total deaths was 11% lower than 2005, it is the third highest number of deaths in 11 years. The last three years have been consistently higher in numbers of deaths than in the previous years, as can be seen in the following chart; this

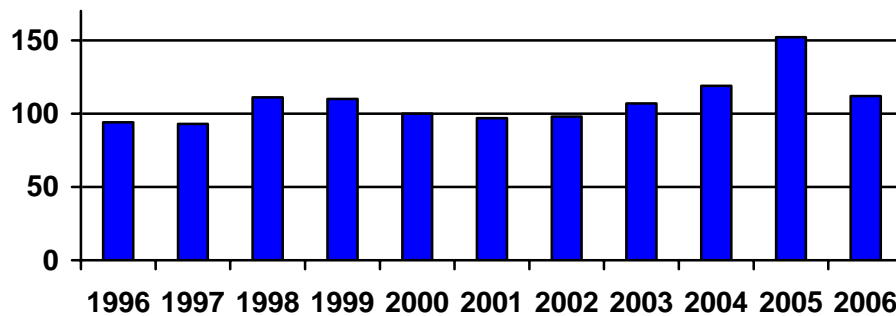
increase has occurred in spite of the fact the number of children under the age of 18 are decreasing as the population of Hamilton County decreases. These two trends resulted in a steady growth in the child death rate, from 6.6 per 10,000 children in 2000 to 9.3 per 10,000 in 2005, an increase of 41%. (It was not possible to compute the child death rate in 2006, since estimates for the population < 18 years old in Hamilton County are currently unavailable.)

Number of Child Deaths 1996-2006



As in years past, the majority of child deaths in Hamilton County are children under the age of one year. The years of 2004, 2005 and 2006 have seen the highest number of infant deaths since the Child Fatality Review Team started collecting data, as illustrated in the following chart:

Deaths Under 1 Year of Age
1996-2006



For several years, Hamilton County has had a higher infant mortality rate (deaths under the age of one year) than the state of Ohio. It should be noted that urban areas tend to have substantially higher infant mortality rates than national or respective states. From 2001 through 2003, there seemed to be a gradual improvement in the Hamilton County infant mortality rate. Unfortunately, this trend has not continued and the rate is worse in 2004 (the most recent year data is available from the Ohio Department of Health) than in the previous three years, as can be seen in the following chart:

Hamilton County and Ohio Infant Death Rates, 2001-2004

	2001	2002	2003	2004
Hamilton County	10.5	9.8	9.6	11.0
State of Ohio	7.6	7.9	7.8	7.7

Data were obtained from the Ohio Department of Health Information Warehouse. Infant mortality rate is defined as the number of deaths under 1 year of age per 1,000 live births.

It should also be noted that Hamilton County had a higher infant mortality rate than all of the other urban counties in Ohio in 2004. The high rate is largely attributable to the disproportionately high number of African-American infant deaths. In 2004, Hamilton County had the highest infant mortality rate among large population counties in Ohio as can be seen in the following chart (data obtained from Ohio Department of Health warehouse):

Infant Mortality Rate by Race by Urban County 2004

County	African American	White	Total
Cuyahoga	16.8	5.5	9.6
Franklin	14.0	5.7	7.8
Hamilton	20.6	6.2	11.0
Lucas	15.8	6.3	8.6
Montgomery	14.1	4.5	7.0
Stark	12.4	4.9	5.6
Summit	15.9	6.7	8.4
Ohio	16.3	6.1	7.7

Data were obtained from the Ohio Department of Health Information Warehouse. The infant mortality rate is defined as the number of deaths under age 1 per 1,000 live births.

The following table shows the infant mortality rates for African American and White children in Hamilton County between the years 2001 and 2004.

Hamilton County Infant Mortality Rate by Race 2001-2004

Year	African American	White	Total
2001	19.5	6.4	10.5
2002	18.1	5.7	9.8
2003	15.9	7.0	9.6
2004	20.6	6.2	11.0

Data were obtained from the Ohio Department of Health Information Warehouse. The infant mortality rate is defined as the number of deaths under age 1 per 1,000 live births. The number of live births in Hamilton County is currently not available after 2004.

Of the 112 Hamilton County children who died under one year of age in 2006, 56.2% (n=63) were African American.

The vast majority of the 112 infant deaths occurred to residents of the city of Cincinnati. 79.5% (n=89) of all infant deaths were Cincinnati residents according to death certificate data. No other city or Township in Hamilton County had more than 3 deaths.

DEATHS FROM PREMATUREITY

A major contributing factor to the high infant mortality rate is the number of deaths due to prematurity. Of the 166 deaths in 2006, 39.8 % (n=66) of total child deaths were due to prematurity, according to data collected by the Hamilton County Child Fatality Review Team. The percentage of total deaths due to prematurity has consistently been over 30% since 1998.

Although there are many programs in Hamilton County directed at connecting high-risk women with prenatal care with the hope of decreasing prematurity rates, numbers and percentages of overall deaths due to prematurity have not decreased over the past 11 years, as can be seen in the following table:

Number and Percentage of Overall Deaths Due to Prematurity by Year

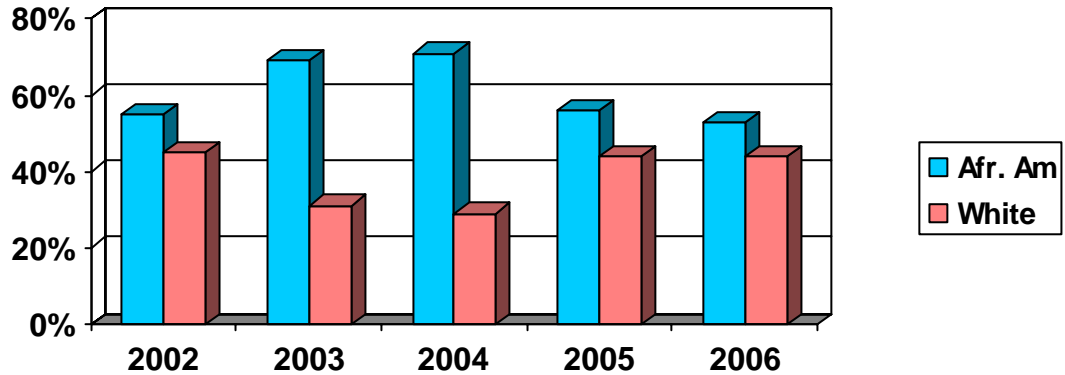
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Number	39	38	47	59	52	58	54	64	70	78	66
Percentage	28.3%	27.5%	30.7%	43.7%	36.1%	46.0%	39.8%	44.1%	41.7%	41.7%	39.6%

RACIAL COMPOSITION OF PREMATURE DEATHS

Of the 66 premature deaths in 2006, 53.0% (n=35) were African American, 43.9% (n=29) were White and 3.0% (n=2) were of other or unknown race. Of the 66 total premature deaths, 84.8 % (n=56) occurred to residents of the city of Cincinnati.

The disparity between African American deaths and White deaths due to prematurity can be seen by the following chart. Although this gap persisted between 2002 and 2006, it was smaller in 2005 and 2006 than in the two previous years.

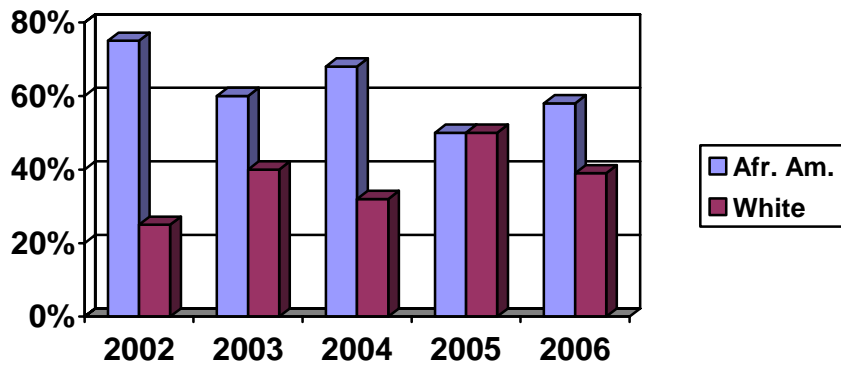
Percentages of Premature Deaths by Race
2002-2006



DEATHS UNDER 24 HOURS

The disparity between the races can also be seen by examining the race of children under 24 hours of age who died. Of the 43 deaths occurring to infants less than 24 hours of age, 58.2% of the infants (n=25) who died under 24 hours of age were African American and 39.6% (n=17) were White and the race of one was unknown (2.3%), as illustrated in the following chart:

Percentage of Deaths Under 24 Hours by Race 2002-2006



TRENDS RELATED TO INFANT MORTALITY

According to the 2007 Hamilton County Maternal Child Community Health assessment currently being compiled for the Hamilton County FCFC Child and Family Health Services Consortium by National Research Center, there are, however, some encouraging trends in data related to infant mortality for Hamilton County, notably:

- The percent of women receiving late or no prenatal care decreased, from 15.4% in 1990 to 12.0% in 2004.
- The percent of women receiving late/no prenatal care decreased among both whites and African Americans between 1990 and 2004.
- The percent of preterm births among teen women aged 15 to 17 declined.
- There was a marked decline in birth rates among both 15-to-17-year old women and 18-to-19-year old women between 1990 and 2005.
- Both white and African American teen women experienced declining birth rates between 1990 and 2004.

However, there are other trends that represent areas of concern:

- Hamilton County's infant mortality rates were above the statewide rates every year between 1990 and 2004 and increased between 2003 and 2004.
- The percent of women in Hamilton County receiving late or no prenatal care increased in 2003 and 2004.
- The percent of preterm births increased in Hamilton County between 2000 and 2004.
- The percent of low birth-weight births increased in both Hamilton County and the state between 1990 and 2004, with Hamilton County having a higher rate than the state every year.
- African American women had consistently worse outcomes on a number of health indicators:
 - Percent receiving late/no prenatal care
 - Percent with preterm births
 - Percent with low birth-weight babies
 - Infant mortality rate

Data for the above information was obtained by National Research Center from the Ohio Department of Health Information Warehouse.

CHILD MORTALITY RATES

Child mortality is defined as deaths from ages 1 to 17. The gap between white and African American child deaths that was observed for infant mortality also holds true for children ages 1 to 17. In 2005, the mortality rate for African American children was about two-thirds higher than it was for white children. Child mortality rates in Hamilton County were similar in 2005 to the rates observed in 2003; however, a slight jump was observed in 2004, due primarily to an increase in deaths (N=4) among African American children. Fortunately, by 2005 the African American child mortality rate had returned to levels slightly lower than what had been observed in 2003. The white child mortality rate remained about the same in all three years.

Hamilton County Child Mortality Rates by Race, 2003-2005

Race	2003 Rate (Number)	2004 Rate (Number)	2005 Rate (Number)
White	18.6 (24)	19.8 (25)	18.6 (23)
African American	35.5 (22)	42.4 (26)	31.1 (19)
Other	0.0 (0)	0.0 (0)	0.0 (0)
Total	23.6 (46)	26.6 (51)	22.2 (42)

Mortality data were obtained from the Ohio Department of Health Vital Statistics; Population estimates came from: National Center for Health Statistics. Estimates of the July 1, 2000-July 1, 2005, United States resident population from the Vintage 2005 postcensal series by year, county, age, sex, race, and Hispanic origin, prepared under a collaborative arrangement with the U.S. Census Bureau. Available on the Internet from: <http://www.cdc.gov/nchs/about/major/dvs/popbridge/popbridge.htm>. (August 16, 2006). The child mortality rate is defined as deaths from ages 1 to 17 per 100,000 population.

OTHER TRENDS

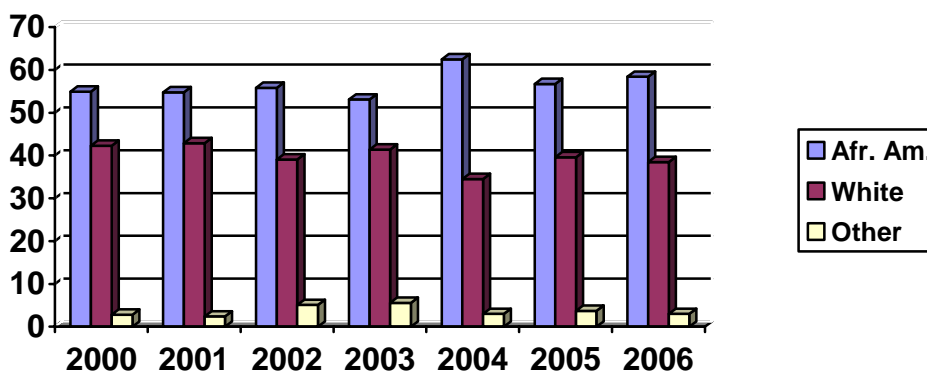
In 2006 as in all previous years of death review, male deaths consistently outnumbered female deaths by a significant amount. The race and gender differences in Hamilton County mirror national data.

The percentage of teen deaths this year is larger than in previous years. In 2006, 16.8% of deaths occurred to teens, compared with 7.5% in 2005 and 13.7% in 2004 and 10.3% in 2003. The larger percentage of teen deaths in 2006 is largely attributable to the high number of homicides in 2006 (n=13), all of which but 2 occurred to teenagers. The percentage of children dying from natural causes continues to range between 68% and 75% each year (except for 1999) and 2005 was no exception, with 71.7% of the deaths being attributable to natural causes.

DEATHS BY RACE

Another noteworthy statistic that appears annually is the disproportionately high percentage of African American child deaths among all children less than 18 years of age. This has been the case for many years, as can be seen in the chart below.

Percentage of Deaths by Race
2000-2006



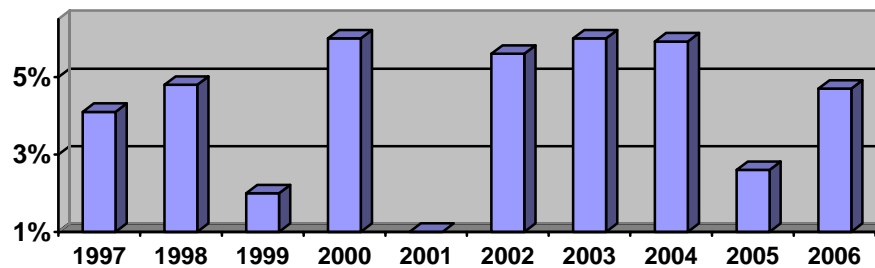
DEATHS RELATED TO SLEEPING ARRANGEMENTS

As has been noted in the last several years, there continue to be a large number of deaths related to infants sleeping in inappropriate bedding and/or co-bedding with adults. In 2006, the Child Fatality Review Team again reviewed a large number of deaths (n=24) where inappropriate sleeping arrangements were noted by the team as present and possibly contributing to the death. Of the 13 cases that were officially identified as undetermined manner of death, 53.8% (n=7) were co-sleeping at the time of deaths, as were 2 of the 4 suffocation victims. Twelve of the undetermined deaths were not sleeping in cribs; the sleeping place of one was unknown. Of the 3 SIDS deaths, 2 were sleeping in cribs at the time of death.

VEHICULAR DEATHS

In 2006, 4.2% of child deaths were caused by vehicular accidents. Since 1997, 4% to 6% of all child deaths have been due to vehicular accidents, with the exception of 2001, as can be seen in the following chart.

Vehicular Deaths 1997- 2006 by Percentage



HOMICIDES

Sadly, 2006 saw the highest number of homicides since the Team began reviewing cases 11 years ago. In 2006, 13 children were the victims of homicides. All but two were teenagers and those two victims were the result of child abuse. Ten of the homicides were related to commissions of crimes by the victim or altercations with peers or acquaintances. Drugs appeared to be involved in several of these homicides.

ONGOING CONCERNS

The high infant mortality rate in Hamilton County, particularly among African Americans, continues to be concerning, as it has been for several years. As noted earlier in the report, the infant mortality rate for African American children in Hamilton County is the highest of all urban counties in the state, according to ODH Data Warehouse for 2004 and, even more discouragingly, it has shown an increasing rather than decreasing trend.

This year as in years past, the percentage of infants under the age of one who died was disproportionately African American (56.2% in 2006). 79.5% of the deaths occurred to residents of the city of Cincinnati. In spite of the fact that there are many programs in Hamilton County directed at improving access and use of prenatal care for high risk pregnant women and many home visitation programs for mothers of high risk young

children, the infant mortality rate in Hamilton County remains unacceptably high. For whatever reason, the social service and outreach programs in Hamilton County do not seem to be reaching the urban African American population as effectively as do our urban counterparts throughout Ohio. More creative methods must be developed to engage the most high risk mothers in helpful social service and prenatal care programs if we are to seriously impact the high infant mortality rate in Hamilton County.

Another ongoing problem is the problem of inappropriate sleep arrangements, which in 2006 was present in 24 deaths (14.5% of all deaths). Co-sleeping was specifically noted and acknowledged by adults in the home in 10 deaths (6% of all deaths). Only 1 of the 13 Undetermined Deaths were sleeping in cribs and none of the 4 suffocation/strangulation deaths occurred to infants sleeping in cribs. These statistics are no better than those of 2005 where inappropriate sleeping arrangements were also a factor in 14% of all child deaths. These are deaths that could easily have been avoided if only more attention was paid to the importance of appropriate sleeping arrangements for infants.

We do not currently have statistics on how many cribs were actually present in the homes as the state form we are required to use does not specifically ask this question and first responders to the scene sometimes do not make note of whether a crib is present or not, so any data we have is too incomplete to report here. The impression, however, of most responders (i.e. police, coroner, EMS) is that oftentimes a crib is present but it is simply not used. The Family and Children First Council has provided cribs for Help Me Grow families who cannot afford them through a \$25,000 grant from the SID Network of Ohio. However, it seems to be lack of knowledge rather than the lack of a crib that is the primary factor in placing infants in inappropriate sleeping situations.

Public education efforts have not been very forceful in the areas of the importance of appropriate sleeping arrangements. This is most unfortunate, because the Child Fatality Review Team sees many needless deaths every year that could easily be prevented if simple safe sleep precautions were followed.

A very sad statistic that appeared in the 2006 Child Fatality Review report is the large number of homicides that occurred in 2006; this was the largest number of homicides to children since the team began reviewing cases eleven years ago. All of the homicides occurred to African American youth. Eleven of the thirteen victims were teenagers and ten of those were involved in criminal activity or were in close proximity to those who were and one was showing off a loaded gun. These deaths are made even sadder by the fact that they were totally preventable.

PREVENTING FUTURE CHILD DEATHS

In 2006, the Team determined that 22.3% of all child deaths in Hamilton County were preventable, which is a significant proportion of the total number of child deaths. Most of these deaths, in fact, are easily avoidable, if families would just follow well known, common sense safety precautions. Every year, the Team's recommendations consist of fairly obvious safety recommendations: the importance of appropriate bedding for infants and toddlers, the risks of co-bedding, the necessity of the use of child car seats, the need for adequate supervision, the need to keep loaded guns away from children and teens, the importance of seat belts and the like. Of late, the Team has tried to stress the importance of appropriate sleeping arrangements for infants, to little avail, and the deaths that result from inattentiveness to the safe sleep needs of infants causes a

number of deaths that could easily have been averted. It has been particularly frustrating to see some of our children die such clearly preventable deaths. The Team hopes, however, that with increased attention to the annual findings of the Hamilton County Child Fatality Review Team the deaths of more children can be prevented.

HAMILTON COUNTY

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Dr. Noble Maseru

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