



# CHILD FATALITY REVIEW

## ANNUAL REPORT

### 2006 DEATHS

## STARK COUNTY, OHIO

Report Prepared By:

Stark County Health Department

William J. Franks, MPH, Health Commissioner

Karen K. Schanz, MPH, Epidemiologist

April 2008



## Introduction

### Board Members

**Board Chair:**  
**William J. Franks, MPH**  
Health Commissioner  
Stark County Health Department

**Les Abel**  
Executive Director  
Stark County Mental Health Board

**Julie Barnes, M.Ed., LSW**  
Deputy Director  
Stark County Children Services

**Emily Caniford, RN , MSN**  
Director, Administration & Support  
Services  
Stark County Health Department

**Raymond Harple**  
Battalion Chief  
Canton City Fire Department

**Jack Liberator, RN**  
Consultant  
Mercy Medical Center

**Robin Mingo-Miles**  
Resident Initiatives Supervisor  
Stark County Metropolitan Housing

**P. S. Murthy, MD**  
Stark County Coroner

**Robert Pattison, MPA**  
Health Commissioner  
Canton City Health Department

**John Sabo**  
Chief  
Plain Township Fire Department

**Hannelore Smith, MD**  
Pediatrician  
North Canton Medical Clinic

**Tim Swanson**  
Sheriff  
Stark County Sheriff's Office

**Reich Watterson, MD**  
Retired Pediatrician

**Stark County Health Department**  
**Staff Assistance:**  
Dianne Myers, LPN, CPS  
Karen Schanz, MPH

The Stark County Child Fatality Review Board has prepared this, its seventh, report on childhood fatalities in Stark County. This report is an in-depth study of each child death during the calendar year of 2006.

In 2006 Stark County lost 50 children to early death. 25% were due to accidental death and 72% were due to natural causes. Of the total deaths 6 were sleep-related and 4 of those were caused by a child sleeping with an adult. This brings the seven year total of sleep-related deaths to 41. The Stark County Safe Sleep Coalition along with the Stark County Safe Kids Coalition have been busy developing an educational campaign to promote safe sleep for children. They are also initiating a Cribs for Kids program for Stark County.

The Stark County Child Fatality Review Board has supported the stand of the Safe Sleep Coalition that the only safe place for a baby to sleep is in its own crib. Hopefully, we will all be successful in our safe sleep efforts for Stark County. We are optimistic that one day we will be able to see no childhood deaths due to unsafe sleeping conditions.

Sincerely,  
William J. Franks, MPH, Chair  
Stark County Child Fatality Review Board



## Purpose of Child Fatality Review

In 2000, legislation was enacted that required every county in Ohio to create a Child Fatality Review Board to review the deaths of all children age 17 and under. The ultimate purpose of the Child Fatality Review Board is to decrease the incidence of preventable child deaths by:

- Promoting cooperation, collaboration, and communication between all groups, professions, agencies, and entities that serve families and children.
- Maintaining a comprehensive database of all fetal and child deaths that occur in Stark County in order to develop an understanding of the causes and incidence of those deaths.
- Making recommendations to local agencies for the development of new programs and changes to current programs that will help to prevent fetal and child deaths.
- Advising the Ohio Department of Health of aggregate data, trends, and patterns concerning child deaths.



## Selection of Board Members

Certain board members are mandated by law and include: county coroner, chief of police or sheriff, executive director of a public children services agency, public health official, executive director of a board of alcohol, drug addiction, or mental health board, and a physician.

After reviewing the child deaths for the year 2000, the original board members of the Stark County Child Fatality Review Team decided that additional members from various specialty fields would benefit the review process. Individuals from several different agencies from different areas of the county were invited to join the review team.

Those agencies that joined the team in 2002 include experts from areas such as hospital administration, public health, child and family health services, emergency medical services, and fire prevention services. A local retired pediatrician has also volunteered his time to help with the team.

In 2004, a representative from Stark Metropolitan Housing joined the Child Fatality Review Board.



## Stark County, Ohio

Based on data from the 2000 U.S. Census, the population of Stark County, Ohio is 378,098. Females comprise 52.0% (196,510) of the population and males 48.0% (181,588). For the 2000 U.S. Census, residents were able to select multiple race categories. Based on this data, 91.6% of Stark County residents (346,221) identify themselves as White and 8.0% (30,070) identify themselves as Black or African American. Children under the age of 18 account for 24.8% (93,936) of the total population of Stark County.



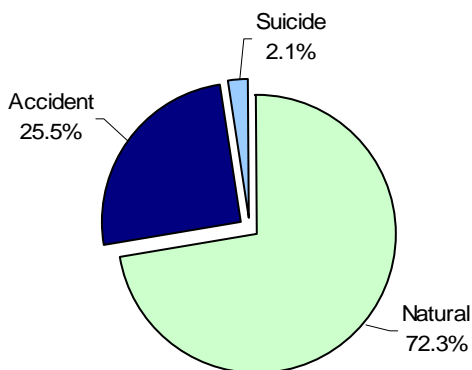
## Summary of 2006 Deaths

In 2006 there were a total of 50 deaths in children age 17 and younger in Stark County, Ohio residents. Of those deaths, 47 were reviewed by the Stark County Child Fatality Review Board. The remaining 3 deaths could not be reviewed due to pending criminal investigations. These 47 deaths represent a decrease in the total number of deaths from 2005 (60 deaths).

In 2006:

- 72.3% (34 of 47 deaths) were due to natural causes
- 59.6% (28 of 47 deaths) occurred in males
- 70.2% (33 of 47 deaths) occurred in white children
- 29.8% (14 of 47 deaths) occurred in black and multiracial children
- 57.4% (27 of 47 deaths) were in infants less than 1 year old

**Figure 1. Manner of death in children 17 years and younger, Stark County, Ohio, 2006**



**Manner of Death classifications are defined as follows:**

**Natural:** Death resulting from inherent, existing conditions (congenital anomalies, disease, SIDS, etc.).

**Accident:** Death resulting from non-intentional trauma.

**Suicide:** Intentional, self-caused death.

**Homicide:** Death caused by another.

**Undetermined:** Unable to determine manner of death.



**Table 1. Deaths in children 17 years and younger in Stark County, Ohio, 2006**

		Manner of Death					Total
		Natural	Accident	Suicide	Homicide	Undetermined	
Age Group	<1	23	4	0	0	0	27
	1-4	5	2	0	0	0	7
	5-9	1	1	0	0	0	2
	10-14	4	4	0	0	0	8
	15-17	1	1	1	0	0	3
	<b>Total</b>	<b>34</b>	<b>12</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>47</b>
Sex	Male	21	6	1	0	0	28
	Female	13	6	0	0	0	19
	<b>Total</b>	<b>34</b>	<b>12</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>47</b>
Race	White	26	6	1	0	0	33
	Black	6	4	0	0	0	10
	Multiracial	2	2	0	0	0	4
	<b>Total</b>	<b>34</b>	<b>12</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>47</b>



## Summary of 2006 Deaths

The total number of deaths cannot be compared from zip code to zip code due to differences in population size. For example, the zip code with the largest population would be expected to also have the most child deaths. Rates allow for comparison between populations of different sizes. Rates were calculated for each zip code in which more than 1 child death occurred in 2006 to provide a more accurate method of comparison.

Zip code 44707 (Southeast Canton) had the highest rate of all zip codes with more than 1 death (more deaths occurred in zip code 44707 per child than in any other zip code in Stark County). Of the 4 total deaths (rate, 139.2) in zip code 44707, 3 were sleep-related (2 due to co-sleeping, 1 SIDS) and 1 was due to a motor vehicle accident which occurred in another zip code. No other zip code experienced more than 1 sleep-related death in 2006.

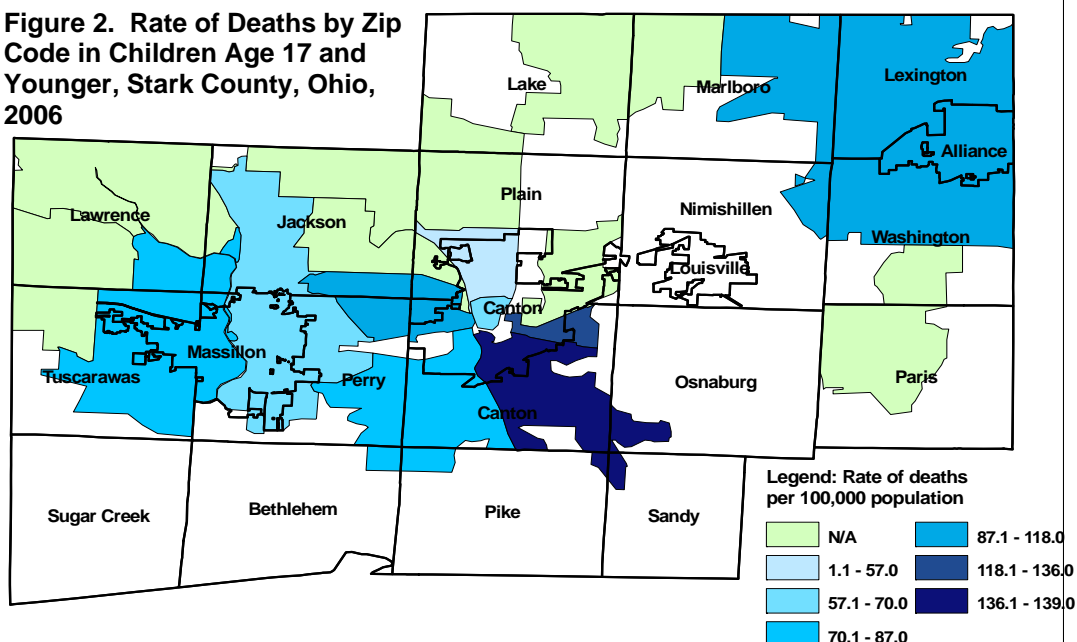
Table 2. Deaths in Children Age 17 and Younger, Stark County, Ohio, 2006

Zip	Count	Population*	Rate**
44707	4	2874	139.2
44704	2	1482	135.0
44601	10	8437	118.5
44708	5	5229	95.6
44706	4	4637	86.3
44647	3	3963	75.7
44703	2	2836	70.5
44646	7	10921	64.1
44709	2	3514	56.9
44669	1	388	--
44666	1	722	--
44888	1	894	--
44632	1	2538	--
44718	1	2710	--
44614	1	2997	--
44705	1	5918	--
44720	1	8716	--

\*Based on 2000 U.S. Census; # of residents age 17 and younger by zip code

\*\*Rate per 100,000 residents age 17 and younger

Figure 2. Rate of Deaths by Zip Code in Children Age 17 and Younger, Stark County, Ohio, 2006



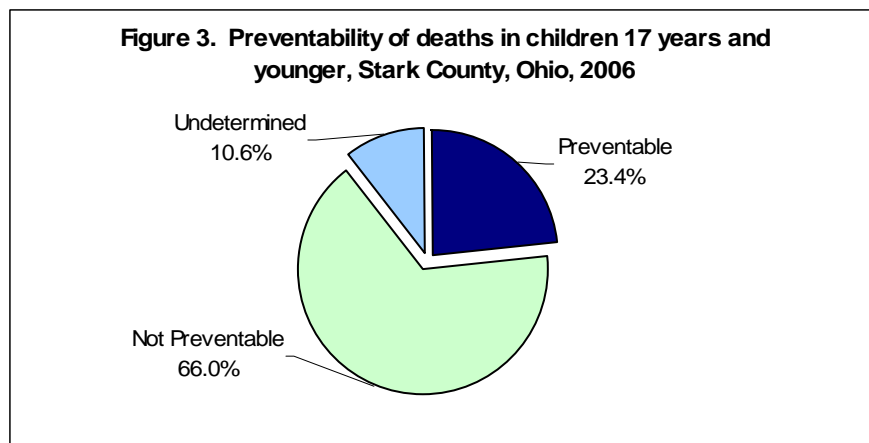


## Preventability of Deaths

Preventability could not be determined in the following cases:

- Two children died as the result of a catastrophic house fire in which the house was totally destroyed; the cause and other circumstances surrounding the fire could not be determined.
- Two infant deaths were classified as Sudden Infant Death Syndrome (SIDS).
- One child died of complications related to influenza infection. He had a history of asthma, but his immunization status could not be determined.

After circumstances surrounding each child death are examined, the committee attempts to make a determination about the preventability of the death. Of the 47 deaths reviewed from 2006, it was determined that no action could have been taken to prevent 31 (66.0%) of the deaths and 11 deaths (23.4%) could have been prevented. The preventability of the remaining 5 deaths (10.6%) could not be determined.



## Infant Deaths

**Table 3. Deaths in infants (less than 1 year old) in Stark County, Ohio, 2006**

	Manner of Death		Total
	Natural	Accident	
<b>Total Reviewed</b>	23	4	27
<b>Premature (&lt;37 weeks)</b>	15	0	15
<b>Low Birth Weight (&lt;2500 grams)</b>	13	0	13
<b>Intrauterine Smoke Exposure</b>	8	2	10
<b>Intrauterine Alcohol Exposure</b>	0	1	1
<b>Intrauterine Drug Exposure</b>	0	0	0
<b>Late (&gt;6 weeks) or No Prenatal Care</b>	0	0	0

Of the 27 deaths reviewed for children less than 1 year old, 23 were due to natural causes (85.2%). The 4 infant deaths that were found to be accidents were all suffocation deaths related to unsafe sleep environments. The data displayed represents select risk factors from all 27 infant deaths reviewed.



Each child could have had one or more risk factors, thus the numbers do not total 27.



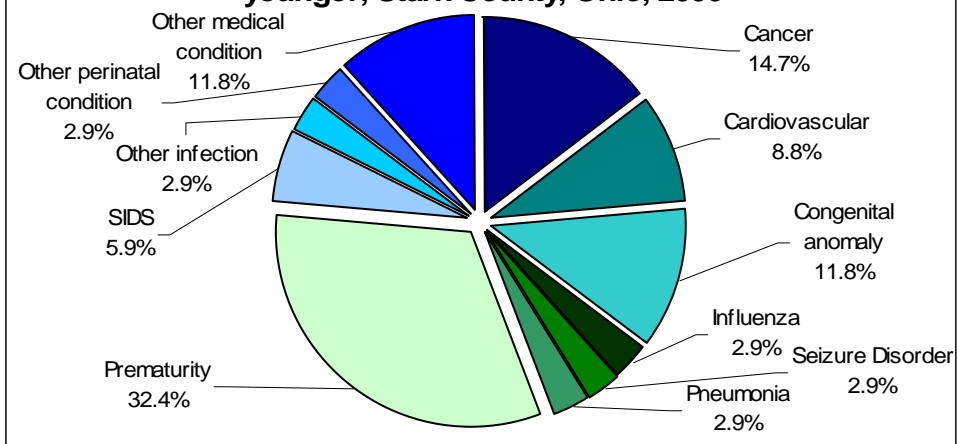
## Natural Deaths

Since the Child Fatality Review process began in 2000, natural deaths have represented the largest percentage of deaths each year. This trend continued in 2006 with 34 of 47 total deaths (72.3%) due to natural causes. Of the 34 natural deaths, 11 (32.4%) were related to prematurity with some infants born as early as 20 weeks gestation and surviving as little as 30 minutes.

**Table 4. Natural deaths in children 17 years and younger by age group, Stark County, Ohio, 2006**

	Age Group					Total	% of Total Natural Deaths
	<1	1-4	5-9	10-14	15-17		
<b>Cancer</b>	0	1	1	3	0	<b>5</b>	<b>14.7%</b>
<b>Cardiovascular</b>	3	0	0	0	0	<b>3</b>	<b>8.8%</b>
<b>Congenital anomaly</b>	4	0	0	0	0	<b>4</b>	<b>11.8%</b>
<b>Influenza</b>	0	1	0	0	0	<b>1</b>	<b>2.9%</b>
<b>Seizure Disorder</b>	0	0	0	1	0	<b>1</b>	<b>2.9%</b>
<b>Pneumonia</b>	0	1	0	0	0	<b>1</b>	<b>2.9%</b>
<b>Prematurity</b>	11	0	0	0	0	<b>11</b>	<b>32.4%</b>
<b>SIDS</b>	1	1	0	0	0	<b>2</b>	<b>5.9%</b>
<b>Other infection</b>	0	1	0	0	0	<b>1</b>	<b>2.9%</b>
<b>Other perinatal condition</b>	1	0	0	0	0	<b>1</b>	<b>2.9%</b>
<b>Other medical condition</b>	3	0	0	0	1	<b>4</b>	<b>11.8%</b>
<b>Total</b>	<b>23</b>	<b>5</b>	<b>1</b>	<b>4</b>	<b>1</b>	<b>34</b>	<b>100.0%</b>

**Figure 4. Natural deaths in children 17 years and younger, Stark County, Ohio, 2006**



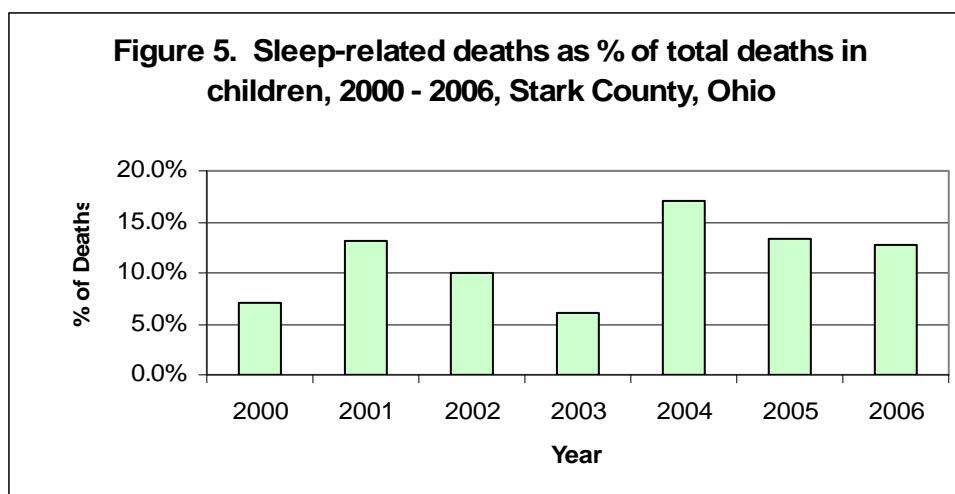


## Sleep-Related Deaths

In Stark County in 2006, there were more sleep-related deaths (6 of 47, 12.8% of all deaths reviewed) than deaths from cancer, fires, motor vehicle accidents, other injuries, or suicide. Of the 6 deaths, 2 were SIDS deaths and 4 were asphyxia deaths in a sleep environment. Of the 4 asphyxia deaths:

- All 4 deaths occurred while the infant was sleeping on the same surface as an adult and/or child.
- 2 deaths occurred on couches and 2 occurred in adult-sized beds.
- Investigation revealed that in at least 3 of the 4 situations a crib was available in the same room but was not being used.
- 1 death resulted in criminal charges against the parent involved in the death.
- In some families unsafe sleep practices are an accepted custom, creating a major educational hurdle. One parent involved in an asphyxia death in 2006 lost a sibling in a similar incident as a young child.

Sleep-related deaths have accounted for varying percentages of total deaths since Child Fatality Review began in 2000, ranging from 6.1% of 2003 deaths to 17.1% of 2004 deaths. Since 2000, black children have represented 31.7% (13 of 41 deaths) of all sleep-related deaths despite the fact that only 8.0% of the population of Stark County identify themselves as black.



**Table 5. Sleep-related deaths in children, Stark County, Ohio, 2000 - 2006**


		2000	2001	2002	2003	2004	2005	2006	
Sex	Male	1	6	3	2	5	6	3	26
	Female	3	1	3	1	2	2	3	15
	<b>Total</b>	<b>4</b>	<b>7</b>	<b>6</b>	<b>3</b>	<b>7</b>	<b>8</b>	<b>6</b>	<b>41</b>
Race	White	2	4	4	3	5	6	3	27
	Black	2	2	2	0	2	2	3	13
	Asian	0	1	0	0	0	0	0	1
	<b>Total</b>	<b>4</b>	<b>7</b>	<b>6</b>	<b>3</b>	<b>7</b>	<b>8</b>	<b>6</b>	<b>41</b>



## Sleep-Related Deaths

**Table 6. Sleep-related deaths in children by cause, Stark County, Ohio, 2006**

		Cause of Death		Total
		SIDS	Asphyxia	
Age	0-1 Month	0	3	3
	2-3 Months	1	0	1
	4-5 Months	0	1	1
	6-7 Months	0	0	0
	8-11 Months	0	0	0
	1-4 Years	1	0	1
	<b>Total</b>	<b>2</b>	<b>4</b>	<b>6</b>
Sex	Male	1	2	3
	Female	1	2	3
	<b>Total</b>	<b>2</b>	<b>4</b>	<b>6</b>
Race	White	2	1	3
	Black	0	3	3
	<b>Total</b>	<b>2</b>	<b>4</b>	<b>6</b>

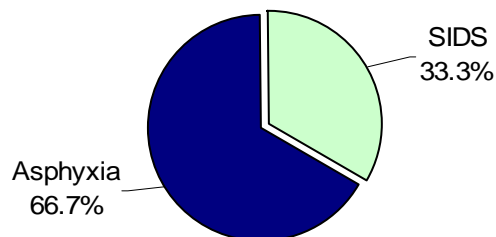
Sudden Infant Death Syndrome (SIDS) is the sudden death of an infant under one year of age that remains unexplained after a comprehensive investigation. Some of the known risk factors for SIDS include: infants sleeping on their stomachs, soft infant sleep surfaces and bedding, maternal smoking during pregnancy, second-hand smoke exposure, overheating, and prematurity or low birthweight. Both of the SIDS deaths in Stark County in 2006 involved infants who were sleeping on their stomachs and covered with blankets. At least one infant also had second-hand and maternal smoke exposure. 

Deaths due to suffocation in a sleep environment can fall into several categories:

- **Overlay:** A person who is sleeping with a child rolls onto the child and unintentionally smothers the child.
- **Positional asphyxia:** A child's face becomes trapped in soft bedding or wedged or trapped in a small space such as a mattress and a wall or couch cushions.
- **Covering of face or chest:** An object (such as heavy blankets) covers a child's face or compresses the chest.

Because SIDS is a diagnosis of exclusion, extensive investigation must be conducted through autopsy, at the death scene, and by reviewing the infant's health history in order to eliminate other potential causes, such as suffocation or other medical conditions.

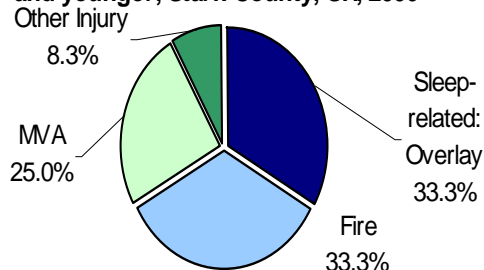
**Figure 6. Sleep-related deaths in children by cause, Stark County, Ohio, 2006**





## Accidental Deaths

**Figure 7. Accidental deaths in children age 17 and younger, Stark County, OH, 2006**



**Table 7. Accidental deaths in children age 17 and younger, Stark County, OH, 2006**

	Number of Deaths
Sleep-related: Overlay	4
Fire	4
MVA	3
Other Injury	1
<b>Total Accidental Deaths</b>	<b>12</b>

Fire-related deaths accounted for 33.3% of all accidental deaths reviewed from 2006 (4 of 12 deaths). These 4 deaths were the result of 2 house fires. One fire resulted in the deaths of 2 teenagers and 3 adults. The other house fire resulted in the deaths of 2 children while 2 other children survived. Despite thorough investigations, a conclusive cause could not be determined for either due to the catastrophic nature of the fires.



Motor-vehicle accidents accounted for 25.0% of all accidental deaths reviewed from 2006 (3 of 12 deaths). These 3 deaths were the result of 3 separate accidents. In one accident, the teenage victim was not wearing a seatbelt. Another teenage victim may or may not have been wearing a seatbelt, but the driver of the car was found to be under the influence of drugs at the time of the accident. In the third accident, a toddler was properly restrained but was killed when the vehicle her parent was driving failed to stop at a stop sign.



## Suicide Deaths

Suicide deaths are the result of intentional, self-inflicted injuries. Data from the National Center for Health Statistics indicates that in 2004 suicide was second only to motor-vehicle crashes as a leading cause of death in youth age 10-17. One suicide death was reported in 2006 in a Stark County teenager due to hanging and cocaine ingestion.



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## Recommendations

- Sleep-related deaths accounted for 12.8% (6 of 47 deaths) of all child deaths in Stark County in 2006. Of these deaths, 4 were classified as asphyxia deaths and 2 were classified as SIDS deaths. All 6 deaths occurred in unsafe sleep environments. The board recommends continued support of the recently formed Stark County Safe Sleep Task Force as they continue to explore methods of educating the community on the safest sleep environments for infants.
- Fires and burns are the third-leading cause of death among children age 17 and younger in the United States, according to the National Center for Health Statistics. In Stark County in 2006, 4 child deaths (8.5% of total deaths) were due to 2 major fires. The board recommends continued education about fire safety, including the importance of working smoke detectors and the responsibility of landlords to ensure that rental properties are equipped with appropriate and functional fire detection devices.
- Despite the fact that influenza is a vaccine-preventable disease, over 200,000 people are hospitalized and 36,000 people die in the United States each year of complications from influenza. The Centers for Disease Control and Prevention, Advisory Committee on Immunization Practices (ACIP) has for many years recommended vaccination of all children with certain medical conditions, including asthma. For the 2008-2009 season ACIP has expanded their recommendation to include the vaccination of all children age 6 months to 18 years. The board recommends continued education of parents regarding the importance of influenza vaccination for all children, but especially for children with high risk medical conditions.



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## Resources

- National Center for Child Death Review: <http://www.childdeathreview.org/>
- Ohio Department of Health Child Fatality Review: <http://www.odh.ohio.gov/odhPrograms/cfhs/cfr/cfr1.aspx>
- Stark County Health Department: <http://www.starkhealth.org/>
- U.S. Census Bureau: <http://www.census.gov/>



## Stark County Child Deaths, 2006



## Stark County Child Fatality Review

STARK COUNTY HEALTH DEPARTMENT  
 3951 CONVENIENCE CIRCLE NW  
 CANTON, OH 44718

- 47 of 50 deaths in children under age 18 in Stark County have been reviewed from 2006.
- 72.3% (34 of 47 deaths) were due to natural causes
- 59.6% (28 of 47 deaths) occurred in males
- 29.8% (14 of 47 deaths) occurred in black and multiracial children
- 57.4% (27 of 47 deaths) were in infants less than 1 year old
- 23.4% (11 of 47 deaths) were determined to have been preventable
- 12.8% (6 of 47 deaths) were sleep-related

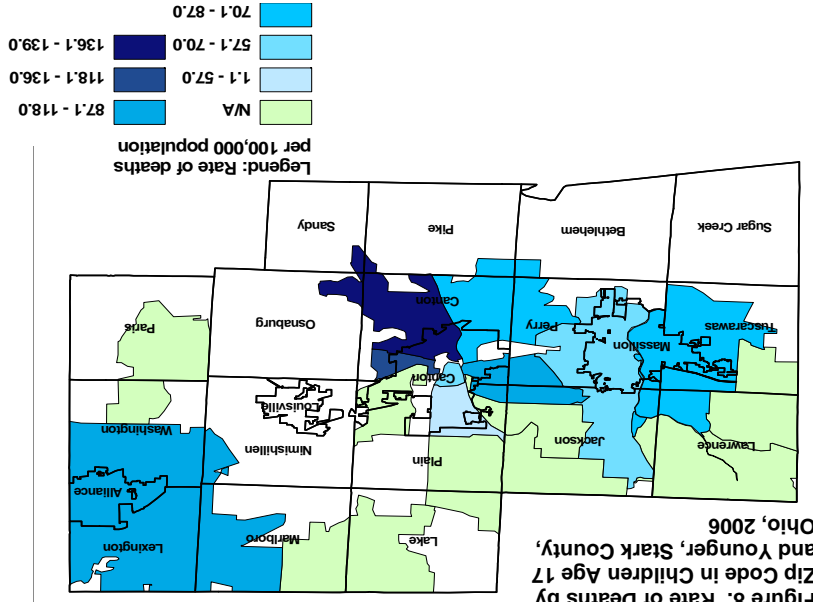


Figure 8. Rate of Deaths by Zip Code in Children Age 17 and Younger, Stark County, Ohio, 2006