CHILD FATALITY REVIEW

ANNUAL REPORT

2008 DEATHS

STARK COUNTY, OHIO

Report Prepared By:
Stark County Health Department
William J. Franks, MPH, Health Commissioner
Karen K. Schanz, MPH, Epidemiologist

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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 younger. 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.

Stark County Child Fatality Review Board Members

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

James Adams, MPH
Health Commissioner
Canton City Health Department

Maureen Ahmann, DO
Medical Director
Stark County Health Department

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Mental Health and Recovery Services Board of Stark County

Julie Barnes, M.Ed., LSW
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Stark County Job & Family Services

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

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Mercy Medical Center

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Plain Township Fire Department

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

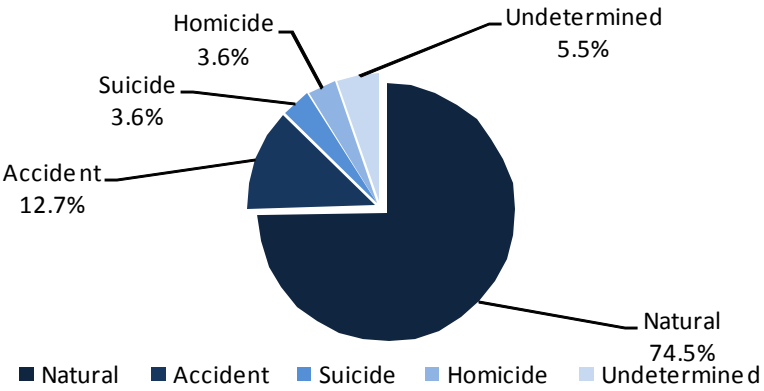
Summary of 2008 Deaths

In 2008 there were a total of 55 deaths in children age 17 and younger in Stark County, Ohio residents. These 55 deaths are steady from the total number of deaths in 2007 (56 deaths).

In 2008:

- 74.5% (41of 55 deaths) were due to natural causes
- 58.2% (32 of 55 deaths) occurred in males
- 70.9% (39 of 55 deaths) occurred in white children
- 29.1% (16 of 55 deaths) occurred in black and multiracial children
- 70.9% (39 of 55 deaths) were in infants less than 1 year old
- 7.3% (4 of 55) were children of Hispanic ethnicity

Figure 1. Deaths in children 17 years and younger in Stark County, Ohio 2008, by Manner of Death



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, 2008

		Manner of Death					
		Natural	Accident	Suicide	Homicide	Undetermined	Total
Age Group	<1	33	3	0	1	2	39
	1-4	3	3	0	1	1	8
	5-9	3	0	0	0	0	3
	10-14	1	0	1	0	0	2
	15-17	1	1	1	0	0	3
	Total	**41**	**7**	**2**	**2**	**3**	**55**
Sex	Male	23	5	1	2	1	32
	Female	18	2	1	0	2	23
	Total	**41**	**7**	**2**	**2**	**3**	**55**
Race	White	29	5	2	1	2	39
	Black	10	2	0	1	1	14
	Multiracial	2	0	0	0	0	2
	Total	**41**	**7**	**2**	**2**	**3**	**55**

Summary of 2008 Deaths

The total number of deaths cannot be compared from city to city due to differences in population size. For example, the area with the largest population would be expected to also have the most child deaths. Rates allow for comparison between populations of different sizes.

Table 2. Deaths in Children Age 17 and Younger by Residence, Stark County, Ohio, 2008

	Deaths	Population*	Rate per 1000**
Alliance	7	5,456	1.28
Canton	20	21,494	0.93
Massillon	9	7,922	1.14
Remainder of Stark County	19	59,064	0.32

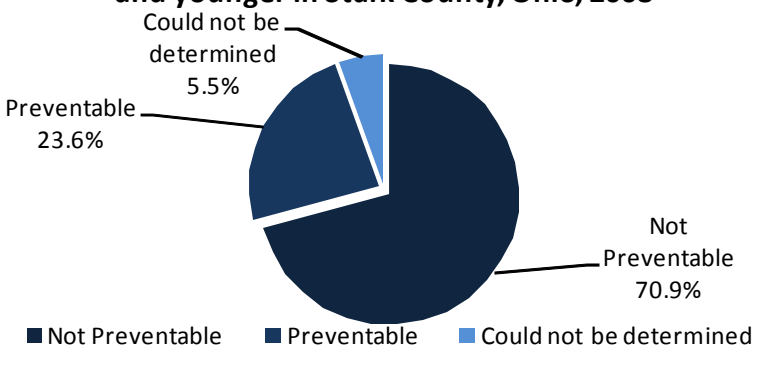
*Data from 2000 U.S. Census; # of residents age 17 and younger by city.

**Rate per 1000 residents age 17 and younger.

Preventability of Deaths

After circumstances surrounding each child death are examined, the committee attempts to make a determination about the preventability of the death. Of the 55 deaths reviewed from 2008, it was determined that 39 of the 55 deaths (74.5%) were probably not preventable and 13 deaths (23.6%) probably could have been prevented. The preventability of the remaining 3 deaths (5.5%) could not be determined.

Figure 2. Preventability of deaths in children 17 years and younger in Stark County, Ohio, 2008



Infant Deaths

Infants (children less than 1 year old) accounted for 70.9% of all child deaths in Stark County in 2008. Of these infants, 28 (71.8%) died at <28 days old and 11 (28.2%) died at 28 days to 1 year old. The most common risk factors for these infant deaths were prematurity (born at <37 weeks gestation) and low birth weight (<2500 g or 5 lbs 8 oz).

- Infant mortality rate is a measure of the number of infant deaths for a specific group relative to the number of live births for that group. The infant mortality rate for black infants in Stark County was 25.4 per 1000 live births, over 3 times the infant mortality rate of white infants in Stark County which was 7.8 per 1000 live births.
- 7 of 39 (17.9%) infant deaths were due to prematurity in multiple births.
- Some of the premature infants were born as early as 16 weeks gestation and lived as few as 8 minutes.
- 28 of 39 infants (71.8%) died at less than 28 days old. The majority of these infants (26 of 28) died of natural causes, either prematurity or other medical problems.
- 11 of 39 infants (28.2%) died between 28 days and 1 year old. About half (6 of 11) of these infants died of natural causes. The other 5 infants from 28 days to 1 year old died in unsafe sleep environments.

Table 3. Deaths in infants (less than 1 year old) in Stark County, Ohio, 2008

	Natural	Accident	Homicide	Undetermined	Total
Total Reviewed	33	3	1	2	39
Premature (<37 weeks)	28	0	0	0	28
Low Birth Weight (<2500 g)	28	0	0	0	28
Multiple Birth	7	0	0	0	7
Intrauterine Smoke Exposure	7	2	0	0	9
Intrauterine Alcohol Exposure*	0	0	0	0	0
Intrauterine Drug Exposure*	1	0	0	0	1
Late or No Prenatal Care**	1	0	0	0	0

Note: The data displayed represents select risk factors from all infant deaths reviewed. Each child could have had one or more risk factors, thus the numbers do not total 39.

*This information is not included on the birth certificate thus the data reported here may be underestimated; information about these risk factors comes from other data sources.

**Late prenatal care is defined as prenatal care begun after the 6th month of pregnancy.

Of the 39 deaths reviewed for children less than 1 year old, 33 were due to natural causes (84.6% of infant deaths). All 3 accidental infant deaths were suffocation deaths in unsafe sleep environments. In addition, there was 1 homicide and 2 undetermined deaths.

Natural Deaths

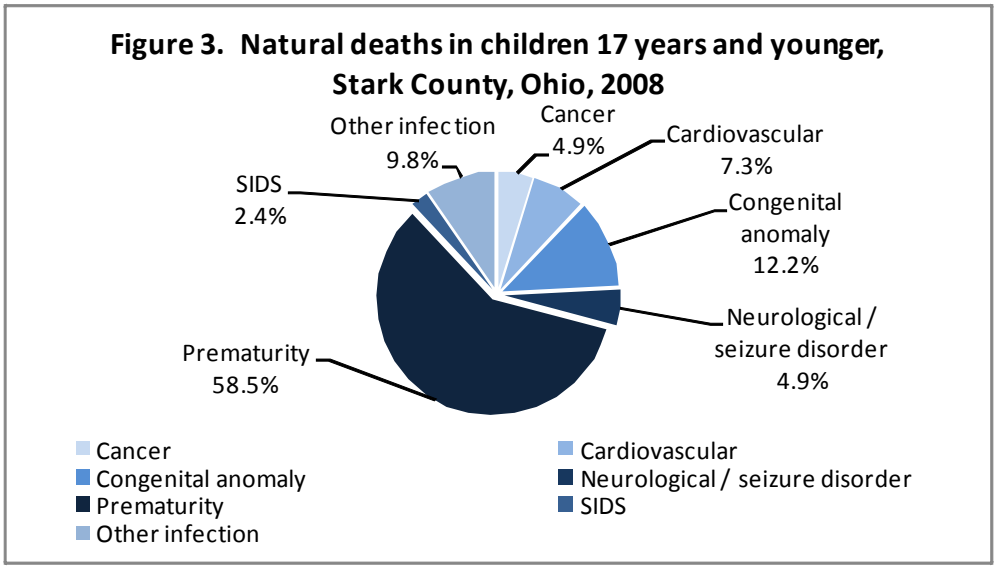
Since the Child Fatality Review process began in 2000, natural deaths have represented the largest percentage of deaths each year. This trend continued in 2008 with 41 of 55 total deaths (74.5%) due to natural causes.

- Of the 41 natural deaths, 29 (70.7%) were related to prematurity or congenital anomalies.
- Acute infections accounted for 4 of 41 (9.8%) of all natural deaths.
- 5 of 41 (12.2%) natural deaths resulted from chronic medical conditions.
- 2 of 41 (4.9%) natural deaths were due to cancer.

Table 4. Natural Deaths in children 17 years and younger by age group, Stark County, Ohio, 2008

	Age Group						
	<1	**1-4**	**5-9**	**10-14**	**15-17**	**Total**	**% of Natural Deaths**
Cancer	0	0	2	0	0	2	4.9%
Cardiovascular	2	0	1	0	0	3	7.3%
Congenital anomaly	3	2	0	0	0	5	12.2%
Neurological / seizure disorder	1	0	0	0	1	2	4.9%
Prematurity	24	0	0	0	0	24	58.5%
SIDS	1	0	0	0	0	1	2.4%
Other infection	2	1	0	1	0	4	9.8%
Total	**33**	**3**	**3**	**1**	**1**	**41**	

Figure 3. Natural deaths in children 17 years and younger, Stark County, Ohio, 2008



Suicide Deaths

Suicide deaths are the result of intentional, self-inflicted injuries. Data from the National Center for Health Statistics indicated that in 2004 suicide was second only to motor-vehicle crashes as a leading cause of death in youth age 10-17. In Stark County in 2008 suicide deaths actually accounted for fewer deaths in youth age 10 –17 than motor-vehicle crashes. Two suicide deaths were reported in 2008 in Stark County.

- The 2 suicide deaths in 2008 represented 40.0% (2 of 5) of all deaths in youth age 10—17 and 67.7% (2 of 3) of all preventable deaths in this age group.
- In both cases the teens had recently experienced a breakup from their significant other and had a history of depression.
- One suicide was by hanging and one by an intentional overdose of prescription medications; both suicides occurred in the child's home.

Child Abuse / Homicide Deaths

3 deaths in 2008 were the result of suspected or confirmed child abuse and traumatic brain injury. 2 of the 3 deaths were declared homicide deaths. Following autopsy it was unclear if the other death was the direct result of child abuse, but there was evidence of prior abuse. All 3 deaths occurred in infants 1 year old or younger. Both homicides resulted in criminal convictions. A recent study showed that the rate of children suffering abusive head trauma increased dramatically during the recession in 2008, adding more evidence to the previously established link between poverty and stress and child abuse and domestic violence.

Accidental Deaths

Sleep-related asphyxia deaths accounted for 42.9% (3 of 7) of all accidental deaths. The 2 deaths in motor vehicle accidents occurred in separate accidents. Other accidental deaths included choking on a peanut and compression by a piece of furniture at home.

Table 5. Accidental deaths in children age 17 and younger, Stark County, Ohio, 2008

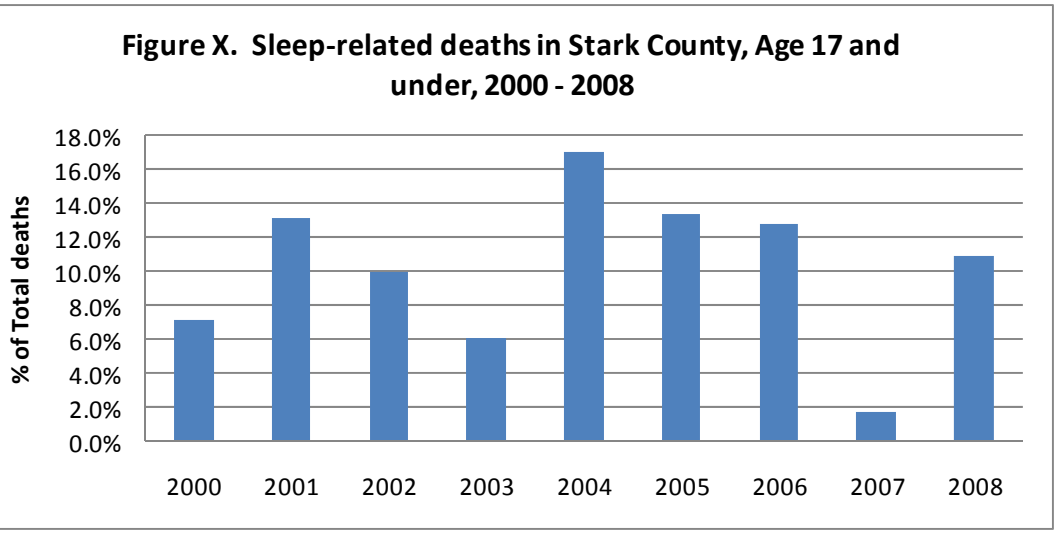
	Number of Deaths
Sleep-related (asphyxia)	3
Motor vehicle accident	2
Choking	1
Other accident (asphyxia)	1
Total Accidental Deaths	**7**

Sleep-Related Deaths

Sleep-related deaths have accounted for varying percentages of total deaths since Child Fatality Review began in 2000, ranging from 1.8% of deaths in 2007 to 17.1% of deaths in 2004. During that time, Stark County has had 48 sleep-related deaths in children. Some of these deaths were determined to be SIDS deaths, some were due to asphyxia, and for some the manner of death could not be determined but an unsafe sleep environment could not be ruled out.

Table 6. Sleep-related deaths in children, Stark County, Ohio, 2000

		2000	2001	2002	2003	2004	2005	2006	2007	2008	
Sex	**Male**	1	6	3	2	5	6	3	1	4	31
	Female	3	1	3	1	2	2	3	0	2	17
	Total	**4**	**7**	**6**	**3**	**7**	**8**	**6**	**1**	**6**	**48**
Race	**White**	2	4	4	3	5	6	3	1	3	31
	Black	2	2	2	0	2	2	3	0	2	15
	Other	0	1	0	0	0	0	0	0	1	2
	Total	**4**	**7**	**6**	**3**	**7**	**8**	**6**	**1**	**6**	**48**



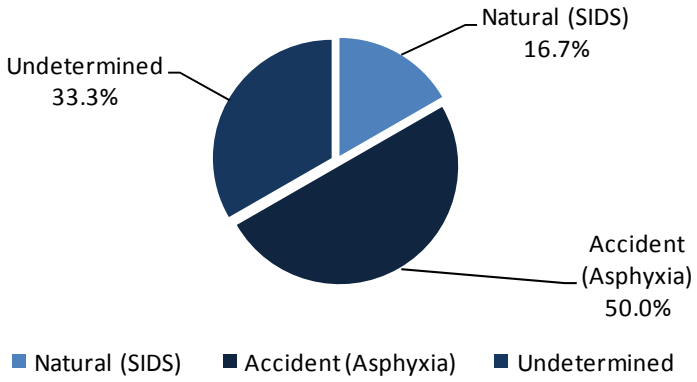
Sleep-Related Deaths

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.

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.

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 (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), or covering of face or chest (an object (such as heavy blankets) covers a child's face or compresses the chest).

Figure 4. Sleep-related deaths in children, Stark County, Ohio, 2008



The Stark County Safe Sleep Task Force recommends that an infant always sleep alone, on his or her back in an empty crib, portable crib, or bassinet on a firm mattress with only a tight-fitting sheet. Blankets, pillows, bumper pads, stuffed animals, etc. should be avoided.

In 2008 the unsafe sleep environments in which infants died included the following: blankets, pillows, bumper pads, sleeping on couches and futons, sleeping on the same surface as an adult, and sleeping on the same surface as another child. Many infants were in environments with multiple hazards.

Recommendations

- Parents are often unaware of steps that could be taken to make their home safer for toddlers and young children. Additional efforts should be made to educate parents, through parenting classes at hospitals or during regularly scheduled well-child exams, regarding home safety issues, including the use of furniture wall anchors and choking hazards.

- Each year young people continue to suffer injury and death in motor vehicle accidents. Teenage drivers need to be reminded of the importance of seatbelts and responsible and safe driving practices. The board also supports the continued efforts of SafeKids Stark County to educate parents and caregivers about appropriate child restraints, especially in light of the recent changes to Ohio law.

- In recent years more and more information has become available regarding the safest infant sleep practices. Despite this information, infants continue to die in unsafe sleep environments, often in homes where a safer sleep option was available but not being used. The board continues to support the Stark County Safe Sleep Task Force in their effort to educate parents and caregivers about safe sleep practices, especially focusing on the use of a crib with no blankets, pillows, bumper pads, or other children or adults every time the child is put to sleep.

- While much progress has been made in ensuring that new parents and students are educated about the consequences of Shaken Baby Syndrome and other forms of child abuse, these incidents continue to occur, often at the hands of babysitters or other adults living with the child. An effort should be made to empower parents to protect their children from these situations by only leaving their children with adults that they know well and trust to be patient with their children.

- Teenage suicide is a difficult issue to address as a community; questions surrounding the suicide itself often have no clear answers. Youth who are being treated for depression should have access to counseling services in addition to appropriate medications. Caregivers of youth in treatment for depression should be advised to safely store all weapons and medication. Parents and school personnel should be reminded of the warning signs for suicide.

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/