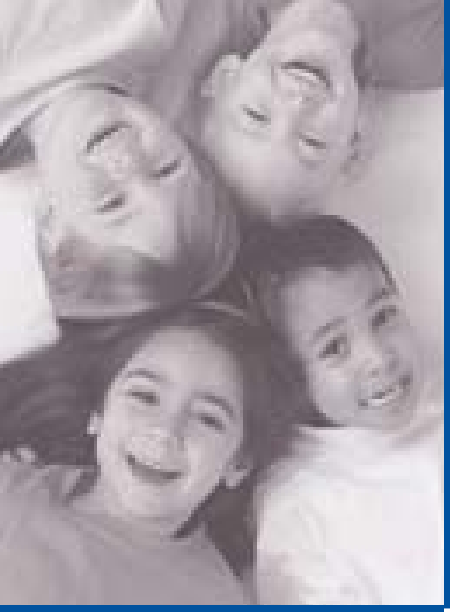
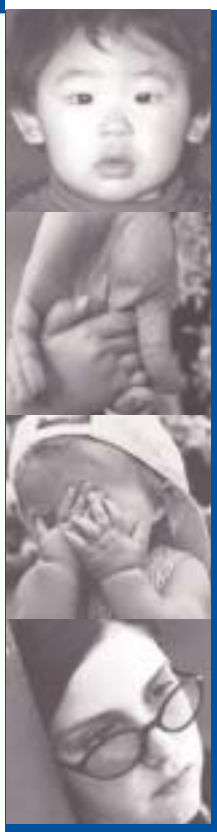


Ohio Department of Health

Ohio Child Fatality Review

Fourth Annual Report

This report includes reviews of child deaths which occurred in 2002



SEPTEMBER 2004

MISSION

To reduce the incidence of preventable child deaths in Ohio.

Submitted on Sept. 30, 2004, to

Bob Taft, Governor, State of Ohio

Larry Householder, Speaker, Ohio House of Representatives

Doug White, President, Ohio Senate

Chris Redfern, Minority Leader, Ohio House of Representatives

Gregory L. DiDonato, Minority Leader, Ohio Senate

Ohio Child Fatality Review Boards

Ohio Family and Children First Councils

SUBMITTED BY

Ohio Department of Health

The Ohio Children's Trust Fund



Table of Contents

Dedication

This report reflects the work of many dedicated professionals throughout the State of Ohio. Through better understanding of how and why children die, we strive to protect and improve the lives of young Ohioans. Each number represents a precious life lost. We dedicate this report to the memory of these children and to their families.

Acknowledgements

This report is made possible by the support and dedication of more than 500 volunteers who serve on Child Fatality Review (CFR) boards throughout the State of Ohio. Members of the CFR boards step outside zones of comfort to use their professional expertise to examine all of the circumstances that lead to child deaths in order to work toward prevention of future deaths. We thank them for having the courage in acknowledging that the death of a child is a community problem.

We also extend our thanks to the Ohio Child Fatality Review Advisory Committee members. Their input and support in directing the development of CFR in Ohio has led to continued improvements in both process and outcomes.

We acknowledge the generous contribution of other agencies in facilitating the Child Fatality Review program, including the Ohio Department of Public Safety; the Ohio Department of Health, Division of Prevention; and state and local vital statistics registrars. We thank Teri Covington and staff of the National MCH Center for Child Death Review for their technical assistance.

Through the collaborative efforts of all of these individuals and their organizations, Ohio children will face a safer future.

from the directors

Dear Friends of Ohio Children,

We are pleased to present the 2004 Ohio Child Fatality Review (CFR) Annual Report that contains information from reviews of child deaths that occurred in calendar year 2002. In addition, it describes important progress in the development of the CFR program, as well as the successes and challenges in preventing the untimely deaths of Ohio children.

This fourth annual report to Governor Bob Taft and the Ohio General Assembly describes our progress in continuing to develop a statewide coordinated program of local CFR boards; provides data on the numbers and causes of child deaths in Ohio; presents local CFR boards' findings, including their recommendations to prevent other child deaths; and provides recommendations for state-level support of local review teams. An exciting addition to this year's report is the inclusion of local initiatives that have resulted from local CFR boards' actions.

The child fatality review process is an example of sharing responsibility and resources to improve public health in our state. Perhaps the most significant outcome of CFR is the opportunity for local stakeholders to work collaboratively to assess, discuss and make recommendations for local changes. Caring professionals from public health, children services, recovery services, law enforcement and health care have volunteered many hours for case reviews and discussions about prevention of child deaths.

As you read the following report, we encourage you to make a commitment to create a safer and healthier Ohio for our children.

Sincerely,

J. Nick Baird, MD, Director
Ohio Department of Health

Sally Pedon, Executive Director
Ohio Children's Trust Fund



Executive Summary

Every child death is a tragic loss for family and community. The Ohio Child Fatality Review (CFR) Program was established by law in 2000 in response to a need to better understand why children die so that future deaths can be prevented. The process of local reviews helps communities and the state acknowledge that the death of a child is a community problem and that the circumstances involved in most child deaths are too multidimensional for responsibility to rest with a single individual or agency.

This 2004 CFR Annual Report marks important achievements in the development of the statewide program. Previous annual reports presented information on reviews conducted in the previous year with deaths from multiple years. With 87 counties participating, it is now possible to look at the data by the year in which the death occurred. This report presents information from the reviews of deaths that occurred in 2002. This change will make it easier to compare CFR data with data from other sources such as vital statistics.

Another important achievement is the presentation of two special focus reports on Motor Vehicle Deaths and SIDS/Other Sleep-related Deaths. These special reports offer in-depth information about two of the leading causes of death for Ohio children. These reports demonstrate the potential of data analysis combined with the review process, to identify risk factors, and to point the direction for prevention activities.

And finally, this report highlights many of the local initiatives that have resulted from the child fatality review process. These collaborations, partnerships and activities are the proof that communities are aware that knowing the facts about a child death is not sufficient to prevent future deaths. The knowledge must be put into action.

Key Findings

This 2004 Ohio Child Fatality Review (CFR) Annual Report contains information on child deaths that occurred in 2002.

A total of 1,368 were used for analysis. This represents 75 percent of all child deaths reported by Ohio Vital Statistics.

Sixty-two percent (857) of the deaths reviewed were to infants less than 1 year of age.

Seventy percent (949) of the deaths reviewed were due to natural causes. Seventy-nine percent (752) of all natural deaths were to infants less than 1 year of age.

Black children and boys died at disproportionately higher rates than white children and girls for most causes of death.

Motor vehicle deaths accounted for 11 percent (153) of all reviews. Fifty-four percent of these children were 15-17-year-olds and 126 were white. Sixty-three percent of the children killed were boys. Of the 118 deaths that occurred in cars or trucks, 47 percent of the deaths were to the child driver.

Eight percent (111) of all reviews were from SIDS. Forty-four percent of all SIDS deaths were to black children and 60 percent were to boys. Forty-seven percent of the SIDS victims were found in locations that are considered particularly unsafe, such as a bed other than a crib or on a couch. Only 26 percent were found in a crib.

Other Sleep-related Deaths accounted for an additional 48 deaths to infants less than 1 year old. Only 7 percent of these deaths occurred in cribs, while 71 percent occurred in locations considered unsafe, such as in other types of beds and on couches. Bedsharing was the most frequently reported factor for Sleep-related Deaths. Seventy-seven percent occurred to infants who were sleeping with someone else at the time of death.

Four percent (61) of the reviews were from Suffocation and Strangulation. More than half of the deaths (64 percent) occurred to children less than 1 year of age.

Firearms and Weapons accounted for 3 percent (42) of the reviews. Seventy-one percent (30) were youth 15 - 17 years of age and 45 percent (19) were black.

Two percent (30) of the reviews were from Drowning and Submersion. Of the deaths for which place of drowning was reported, 40 percent occurred in lakes, rivers or ponds.

Two percent (30) of the reviews resulted from Child Abuse and Neglect. All of these deaths were to children less than 5 years of age.

Fire and Burns accounted for 2 percent (29) of the reviews. Inadequate supervision was cited in 10 of these deaths.

There were 31 Suicide deaths.

More than 150 recommendations were submitted by local CFR boards. More than 20 counties shared information about local prevention initiatives that have resulted from the CFR process.

Overview of Ohio Child Fatality Review Program

Child deaths are often regarded as an indicator of the health of a community. While mortality data provide us with an overall picture of child deaths by number and cause, it is from a careful study of each and every child's death that we can learn how best to respond to a death and how best to prevent future deaths.

Recognizing the need to better understand why children die, in July 2000, Governor Bob Taft signed into law the bill mandating child fatality review (CFR) boards in each of Ohio's counties to review the deaths of children under 18 years of age. The mission of these local review boards, as described in the law, is to reduce the incidence of preventable child deaths. To accomplish this, it is expected that local review teams will:

- Promote cooperation, collaboration and communication among all groups that serve families and children;
- Maintain a database of all child deaths to develop an understanding of the causes and incidence of those deaths;
- Recommend and develop plans for implementing local service and program changes and advise the Ohio Department of Health (ODH) of data, trends and patterns found in child deaths.

While membership varies among local boards, the law requires that minimum membership includes:

- County coroner or designee;
- Chief of police or sheriff or designee;
- Executive director of a public children service agency or designee;
- Public health official or designee;
- Executive director of a board of alcohol, drug addiction and mental health services or designee;
- Pediatrician or family practice physician.

Additional members are recommended and may include the county prosecutor, fire/emergency medical service, school representatives, other child advocates and other child health and safety specialists.

CFR boards must meet at least once a year to review the deaths of child residents of that county. The basic review process includes:

- The presentation of relevant information;
- The identification of contributing factors;
- The development of data-driven recommendations.

Data are recorded and entered into a database for analysis. Each CFR board submits data to the state.

ODH is responsible for providing technical assistance and annual training to the CFR boards. ODH staff also coordinate the data collection, maintain a statewide Web-based data system and analyze the data reported by the local boards. The annual state report is prepared and published jointly with the Children's Trust Fund Board.

To assist moving CFR forward in Ohio, an advisory committee was established in April 2002. The purpose of the advisory committee is to review Ohio's child mortality data and CFR data to identify trends in child deaths; to provide expertise and consultation in analyzing and understanding the causes, trends and system responses to child deaths in Ohio; to make recommendations in law, policy and practice to prevent child deaths in Ohio; to support CFR and recommend improvements in protocols and procedures; and to review and provide input for the annual report.

The 2004 Ohio Child Fatality Review Annual Report represents important steps in the continued growth and development of the program. Several changes to the program include:

- In previous years, emphasis was placed on creating local boards, identifying members and establishing the review process in all counties. Previous annual reports presented information on reviews conducted in the previous year. With local CFR boards operating nearly universally across the state, it is now possible to look at the data by the year in which the death occurred. This change will make it easier to identify trends and to compare with other data sources such as vital statistics.
- At the recommendation of the Child Fatality Review Advisory Committee, special focus reports with more in-depth analyses were done for Motor Vehicle Deaths and SIDS/Other Sleep-related Deaths.
- Many counties have initiated a variety of prevention activities as a result of the CFR board process. New partnerships and collaborations have formed. Several of these activities are highlighted in this report, demonstrating local commitment to using the review process to help save the lives of our children.

2004 Data Reporting

By April 1 of each year local child fatality review (CFR) boards must submit a report to the Ohio Department of Health that includes the following information with respect to each child death reviewed:

- Cause of death;
- Factors contributing to death;
- Age;
- Gender;
- Race;
- Geographic location of death;
- Year of death.

In addition, the local boards submit recommendations for actions that might prevent future deaths.

Previous annual reports included information from reviews that were completed in the previous year. The reports included information for deaths from multiple years. This report includes only information from reviews of deaths that occurred in 2002. Reporting the information by the year the death occurred will allow for easier identification of trends and for comparison with other data sources.

There were a total of 1,423 reviews of 2002 child deaths reported by April 1, 2004. This represents 78 percent of the deaths reported by Ohio Vital Statistics. Of this number 1,368 reviews were included in the analysis for this report, based primarily on the completeness of the information on each death review. This represents 96 percent of all the reviews reported. All 88 counties submitted reports. One county reported no CFR board activity for the 2002 deaths. More than 150 recommendations were submitted. More than 20 counties shared information about local prevention initiatives that have resulted from the CFR process.

Limitations

Current Ohio law regarding child fatality review (CFR) is unique among the states with CFR laws in that Ohio does not provide for the protection of confidentiality of information on the state level. The Ohio Administrative Code 3701-67-07 specifically states that the annual reports provided to the Ohio Department of Health (ODH) by the county CFR boards are public record and subject to section 149.43 of the Ohio Revised Code. In order to protect confidentiality, data submitted to ODH by local CFR boards contain no identifying information. As a result:

- ODH is prohibited from linking CFR data to death certificates.
- ODH is unable to investigate discrepancies in the number of county deaths reported by Vital Statistics and the number of reviews conducted by the county.
- ODH is unable to explain differences in the number of deaths by Manner and Cause of Death reported by Vital Statistics and the number of reviews conducted.
- In-depth evaluation of contributing factors associated with child deaths and determination of preventability is not possible due to lack of access to relevant data.

It is recommended that Ohio law be revised so that CFR data submitted to ODH will be held in confidence and not be subject to open public record laws.

Summary of CFR Data, by Manner of Death, Cause of Death and Demographics

Summary of the Reviews

CFR Data by Cause of Death

Cause of Death	#	%
Natural Death to Child Age > 1 Year	199	15%
Natural Death to Child Age 0–1 Year*	662	48%
Sudden Infant Death Syndrome	111	8%
Child Abuse and Neglect	30	2%
Vehicular	153	11%
Fire and Burn	29	2%
Drowning and Submersion	30	2%
Falls	2	0%
Poisoning	7	1%
Electrocution	1	0%
Firearms and Weapons	42	3%
Suffocation and Strangulation	61	4%
Any Other Cause	41	3%
Total	**1368**	**100%**

* Excludes SIDS, which are reported separately

CFR Data on Cause of Death by Race

Cause of death	White	Black	Other	Unknown
Natural	542	285	20	14
0–1 Year*	396	236	17	13
>I Year	146	49	3	1
SIDS	59	49	3	
Vehicle	129	20	4	
Suffocation/strangulation	47	14	0	
Drowning/submersion	19	11	0	
Fire and bums	19	9	0	
Firearms/weapons	23	19	0	
Abuse and neglect	18	11	0	1
Poisoning	5	2	0	
Falls	2	0	0	
Electrocution	25	16		
Total	**889**	**436**	**27**	**16**

*Excludes SIDS which are reported separately

CFR Data on Cause of Death by Gender

Cause of death	Male	Female	Unknown	Not Reported
Natural	469	383		
0–1 Year*	352	303	1	6
>l Year	117	80		2
SIDS	67	44		
Vehicle	94	56		3
Suffocation/strangulation	33	28		
Drowning/submersion	24	6		
Fire and bums	15	14		
Firearms/weapons	34	8		
Abuse and neglect	14	16		
Poisoning	5	2		
Falls	2	0		
Electrocution	1	0		
Any other cause	21	20		
Total	**779**	**577**	**1**	**11**

*Excludes SIDS which are reported separately

CFR Data on Cause of Death by Age

Cause of death	0–1	1–4	5–14	15–17
Natural	662	71	93	35
0–1 Year*	662			
>l Year		71	93	35
SIDS	111			
Vehicle	1	13	57	82
Suffocation/strangulation	39	2	13	8
Drowning/submersion	3	7	10	10
Fire and bums	2	15	10	2
Firearms/weapons	0	1	11	30
Abuse and neglect	16	14	0	0
Poisoning	0	1	1	5
Falls	0	0	1	1
Unknown	23	1	10	7
Total	**857**	**125**	**206**	**180**

*Excludes SIDS which are reported separately

Manner of Death

CFR Data on Manner of Death by Age, Gender and Race

		Natural	Accident	Homicide	Suicide	Undetermined	Totals	
Age	Birth–27 days	539	4	5	0	1	549	(40%)
	28 days–1 year	213	41	16	0	32	302	(22%)
	1–4	69	33	16	0	6	124	(9%)
	5–9	38	27	4	1	2	72	(5%)
	10–14	55	61	5	11	1	133	(10%)
	15–17	35	102	22	19	1	179	(13%)
	Totals	949 (70%)	268 (20%)	68 (5%)	31 (2%)	43 (3%)	1359	(100%)
Gender	Male	524	168	38	24	20	774	(57%)
	Female	416	97	30	7	23	573	(43%)
	Unknown	1	0	0	0	0	1	(<1%)
	Totals	941	265	68	31	43	1348	(100%)
Race	White	583	212	30	27	33	882	(65%)
	Black	329	51	37	4	13	434	(32%)
	Other	23	4	0	0	0	14	(10%)
	Unknown	8	1	1	0	0	10	(7%)
	Totals	943	268	68	31	43	1353	(100%)

Note: Total number of cases excludes those with missing data for age, gender, or race.

General Characteristics of the Review of Manner of Death

- 62 percent (857) of all reviews where Manner of Death and age were reported were to infants under the age of 1 year.
- 57 percent of all reviews where Manner of Death and gender were reported were to male children.
- 32 percent of all reviews where Manner of Death and race were reported were to black children, which is disproportionate to their representation in the population.

Of the 1359 reviews for which manner of death was recorded,

- **Natural Deaths** (949) accounted for 70 percent of all deaths reviewed.
  - 79 percent (752) of all natural deaths were to infants less than 1 year old.
  - There was a disproportionate percentage of deaths from natural causes among black children (35 percent) and boys (56 percent).

- **Accidents** (Unintentional Injuries) (268) accounted for 20 percent of all deaths reviewed.
  - 38 percent (102) of all unintentional injuries were to youth aged 15–17 years.
  - 63 percent of unintentional injuries occurred in males and 79 percent in white children.
- **Homicide** (68) accounted for 5 percent of all deaths reviewed.
  - 32 percent (22) of all homicides were to youth aged 15–17 years; and 24 percent (16) were to children ages 1–4 years. 31 percent were to infants under 1 year of age.
  - 56 percent of homicides occurred to males and 54 percent in black children.
- **Suicide** (31) accounted for 2 percent of all deaths reviewed.
  - 61 percent (19) of all suicide deaths were to youth ages 15–17 years.
  - 77 percent of suicides were among males and 87 percent were in whites.
- **Undermined** (43) accounted for 3 percent of all deaths reviewed.
  - 77 percent (33) of all undetermined deaths were among infants less than 1 year of age.
  - 53 percent of undetermined deaths were among females and 70 percent were among white children.

Data

Motor Vehicle

When reviewing Ohio Child Fatality Review (CFR) data in past years, the CFR Advisory Committee noted that Motor Vehicle crashes accounted for large numbers of child deaths, particularly in the 15 to 17-year-old age group. The advisory committee recommended that a state-level workgroup be formed to look more closely at motor vehicle deaths. A workgroup was developed with members from various programs within Ohio Department of Health, as well as other state and local agencies involved in motor vehicle crash prevention. The workgroup collected information from several sources on crash and fatality data, current prevention programs and best practice guidelines. Recommendations for this expanded special focus report were developed by the workgroup.

Background

Motor Vehicle crashes are the leading cause of unintentional injury-related death among children ages 14 years and younger in the United States. Several factors known to contribute to the risk of motor vehicle fatalities include alcohol, speeding and failure to use a restraint device, notably seat belts and child restraints. For children younger than 4, proper use of child restraint devices plays a crucial role in preventing motor vehicle fatalities. When child restraint devices are properly used for infants and toddlers, the risk of vehicular deaths can be reduced by 71 percent. Though airbags are effective restraints, child safety experts urge that children sit in the back seat because airbags are often not the most effective type of restraint for children less than 12 years. Older teenagers also suffer a high number of vehicular fatalities in the United States. Young drivers constitute nearly 7 percent of the driving population, yet they account for 14 percent of all fatal crashes in the United States.

Vital Statistics

Ohio Vital Statistics reported 174 vehicular deaths to children in 2002. A total of 102 (59 percent) of these were to children in the 15–17 age group.

Data from Ohio Department of Public Safety

The Ohio Department of Public Safety (DPS) routinely collects data on all motor vehicle crashes in Ohio and annually publishes the Ohio Traffic Crash Facts report. DPS ran special analyses at the request of CFR for drivers 15–17 years old, and produced more than 25 reports for discussion, using the latest 2003 data.

The following are the findings from DPS on 15–17-year-olds involved in motor vehicle crashes:

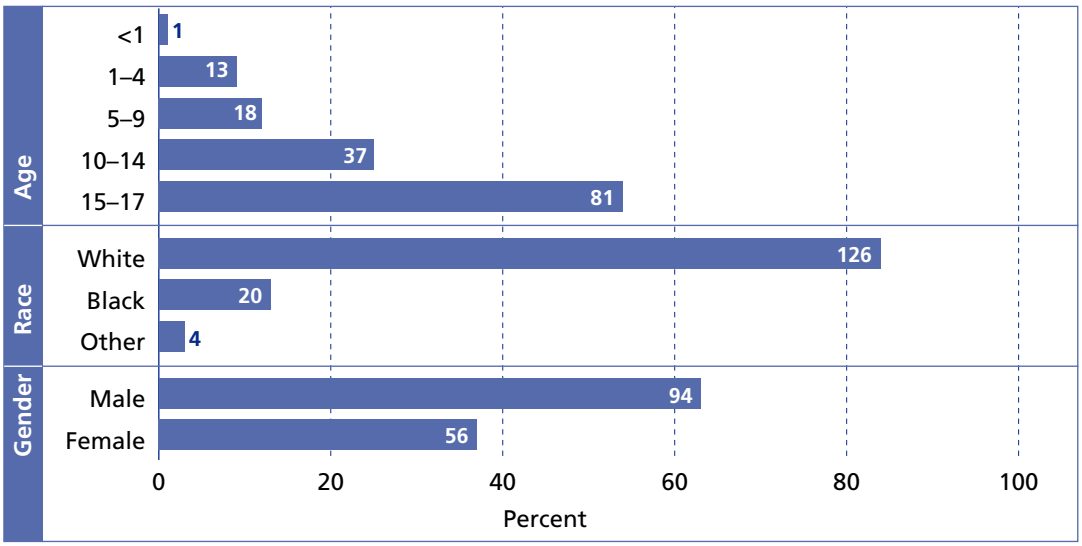
- 15–17-year-olds were involved in 102 fatal crashes, resulting in the death of drivers or passengers;
- 109 vehicles were involved in the 102 fatal crashes of 15–17-year-old drivers. (Nearly all the fatal crashes were single-vehicle crashes.);
- 81 were killed in motor vehicle crashes;
- 37 were drivers;

- 41 were passengers;
- 3 were pedestrians;
- Of the 78 deaths that occurred in vehicles, 46 were not wearing seat belts;
- Of the 81 deaths, 16 (20 percent) were alcohol related;
- Seven of the 16 alcohol-related crashes were drivers.

CFR Findings

Local CFR boards reviewed 153 deaths to children from motor vehicle crashes in 2002. This represents 11 percent of all reviews. More than 54 percent of the deaths occurred to 15–17-year-olds. There were greater percentages of motor vehicle deaths among boys (63 percent) and among whites (84 percent) relative to their representation in the general population.

Vehicular Deaths by Age, Race and Gender



Note: numerals in bars equal number of cases

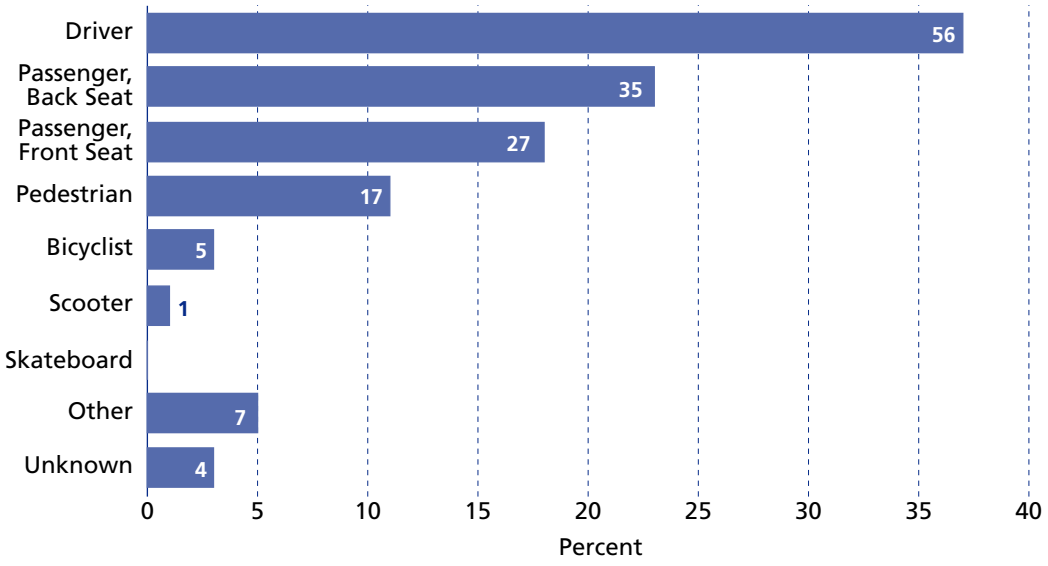
Risk Factors by Age of Driver

Risk Factors	<16	16–18	19–21	>21	Age unk	Total	% of 153 vehicular deaths
Alcohol and/or Drug Impaired	1	12	2	7	3	25	17%
Recklessness	7	30	4	9	3	53	37%
Alcohol and/or Drug Impaired/Recklessness	1	8	2	5	2	18	12%
Driver Error	5	36	2	19	9	71	46%
Speeding	3	35	3	3	0	44	29%
Poor Road or Weather Condition	6	19	1	9	1	36	24%
Restraint Not Used	6	35	3	11	6	61	40%

Note: More than one factor may be identified for each death

Driver error was cited in 19 percent of the deaths; recklessness was cited in 14 percent; speeding was cited in 12 percent. In 53 percent of the deaths, the driver was between 16–18 years of age; 8 percent of the drivers were less than 16 years of age. Sixty-six percent of the vehicles involved in these crashes were cars/vans and 13 percent were trucks/campers.

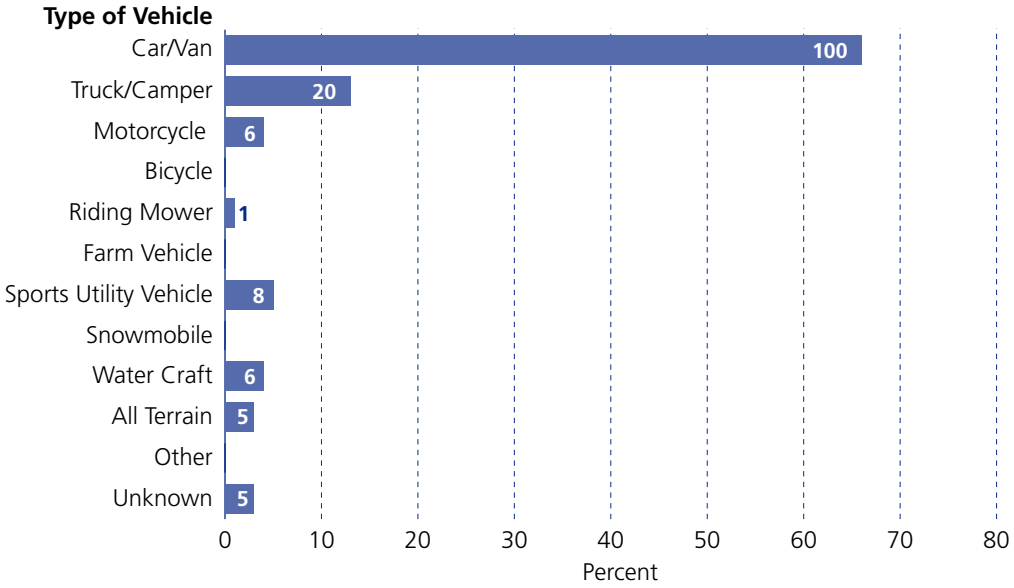
Vehicular Deaths by Position of Child



Note: numerals in bars equal number of cases

Seventy percent of the deaths (118) occurred in the car the child was in. Of these 118 deaths occurring in a car (driver or passenger), 47 percent were to the child driver and 62 percent to child passengers. There were more deaths among rear seat passengers.

Vehicular Deaths by Vehicle Involved in Crashes



Note: numerals in bars equal number of cases

Cars/Vans were involved in 66 percent of the motor vehicle crashes. Trucks/Campers accounted for 13 percent and Sports Utility Vehicles were involved in 5 percent of the crashes.

Examples of Local Recommendations

Local CFR boards made over 30 recommendations for the prevention of motor vehicle deaths based on the review of local deaths. Recommendations become initiatives only when resources, priorities and authority converge to make changes happen. The recommendations ranged from short term local initiatives to legislative changes, and included:

- Identify the safety of young children as pedestrians and bike riders as a priority by continuing or enhancing programs such as Safety Town;
- Heighten awareness of the dangers of excessive speed, drinking and driving, and of the importance of seatbelt, car seat, and helmet use through public education and media campaigns;
- Support continuation and enhancement of current programs such as SADD and Prom Promise aimed at teen drivers that promote seatbelt use, safe driving techniques and discourage risk-taking behaviors;
- Educate parents of new drivers of their responsibilities with the graduated driver's licensing and empower parents to set limits for new drivers regarding the number of passengers, driving in inclement weather, time of day for driving, etc;
- Promote of the use of helmets for children on bikes, motorcycles and all-terrain vehicles through awareness, availability and legislative requirements;
- Improve road design safety by working with law enforcement and county engineers;
- Advocate for the assessment of driver competency for license renewal.

Examples of Local Initiatives

- The Seneca County CFR board requested an investigation of visibility at the site of a fatal crash. The county sheriff had photos taken from different angles at the intersection. Bushes and shrubs at the intersection are being monitored periodically to ensure the view of approaching traffic is not blocked.
- Several county CFR boards partnered with other local safety and school organizations to monitor the use of seatbelts by teen drivers as they left school parking lots at the end of the school day. Both negative and positive reinforcements were used to demonstrate the message that seatbelt use is the expected norm, and that adults are concerned about teen driving safety.
- The Guernsey County CFR board partners with other organizations including the Guernsey County Youth Commission to sponsor an annual bike safety event where free bike helmets are distributed, funded by a grant from the Brain Injury Association.
- The Tuscarawas County CFR board recognized a trend in motor vehicle crash victims from a single school district and housing area. The CFR information was shared with local law enforcement, educators, civic groups and other public agencies, resulting in renewed activities for a targeted population of young drivers.

Advisory Committee Recommendations

The Child Fatality Review Advisory Committee (CFRAC) reviews data to identify trends, provides expertise in understanding the factors related to child deaths and makes recommendations for the prevention of future deaths. CFRAC recommended support for legislative changes to strengthen the state's graduated driver's license laws and wrote a letter to the director of the Ohio Department of Health asking for the department's support.

SIDS Deaths

Background

Nationally, Sudden Infant Death Syndrome (SIDS) is the leading cause of death in infants between 1 month and 1 year of age. SIDS is the diagnosis given the sudden death of an infant under 1 year of age that remains unexplained after the performance of a complete postmortem investigation, including an autopsy; an examination of the scene of death; and review of the infant's health history. While the cause and mechanism of SIDS eludes researchers, several factors appear to put an infant at higher risk for SIDS. Infants who sleep on their stomachs are more likely to die of SIDS than those who sleep on their backs, as are infants whose mothers smoked during pregnancy and who are exposed to passive smoking after birth. There is a large racial disparity, with the SIDS rate for black infants more than twice the rate for white infants.

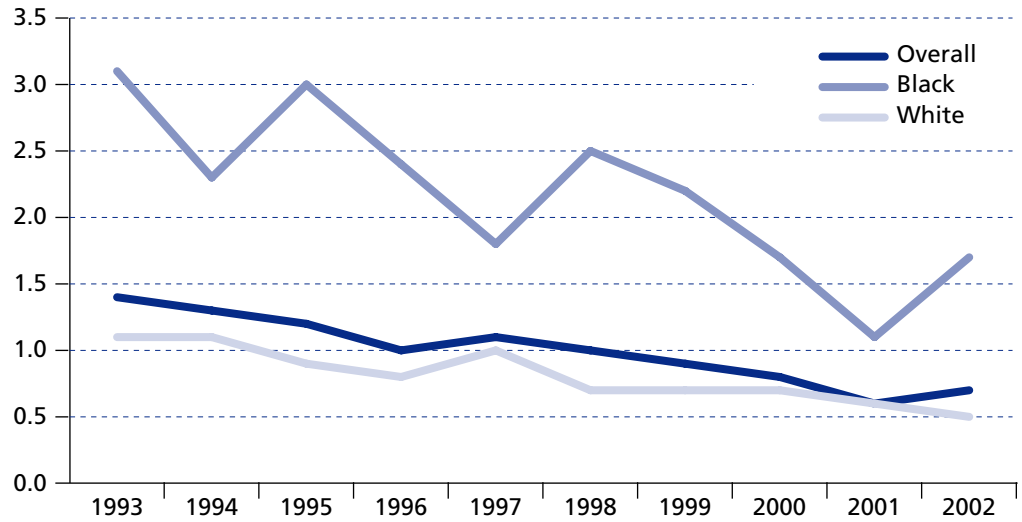
Because SIDS is a diagnosis of exclusion, all other probable causes of death must be eliminated through autopsy, death scene investigation and health history. The determination of SIDS is difficult in the absence of a thorough investigation and in the presence of known risk factors for other causes of infant death, such as suffocation.

Vital Statistics

Ohio Vital Statistics reported 105 SIDS deaths to infants in 2002. Thirty-seven percent of the SIDS deaths were to black infants. About 74 percent of the SIDS deaths occurred within the first four months of life.

The Ohio SIDS rate has decreased by 50 percent in the last decade, from 1.4 deaths per 1,000 live births in 1993 to 0.7 in 2002. The disparity between black and white deaths from SIDS has increased in the last decade. In 1993 the black SIDS rate was 2.8 times higher than the white SIDS rate. In 2002 the black SIDS rate was 3.4 times higher than the white SIDS rate.

SIDS Rate Per 1,000 Live Births by Race in Ohio, 1993-2002

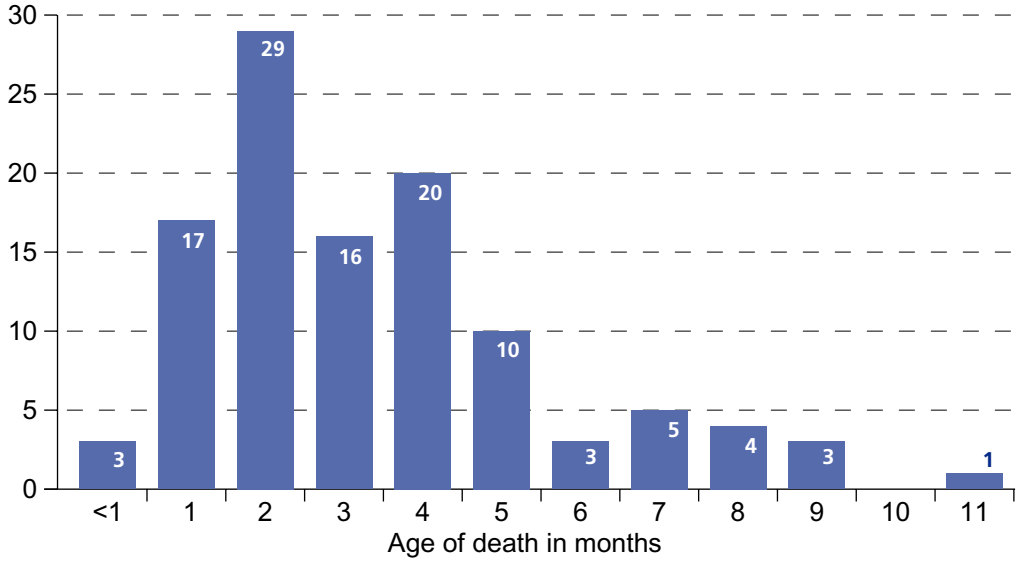


Note: Caution should be used in interpreting rates and trends due to small numbers and due to the updating of pending/undetermined records.

CFR Findings

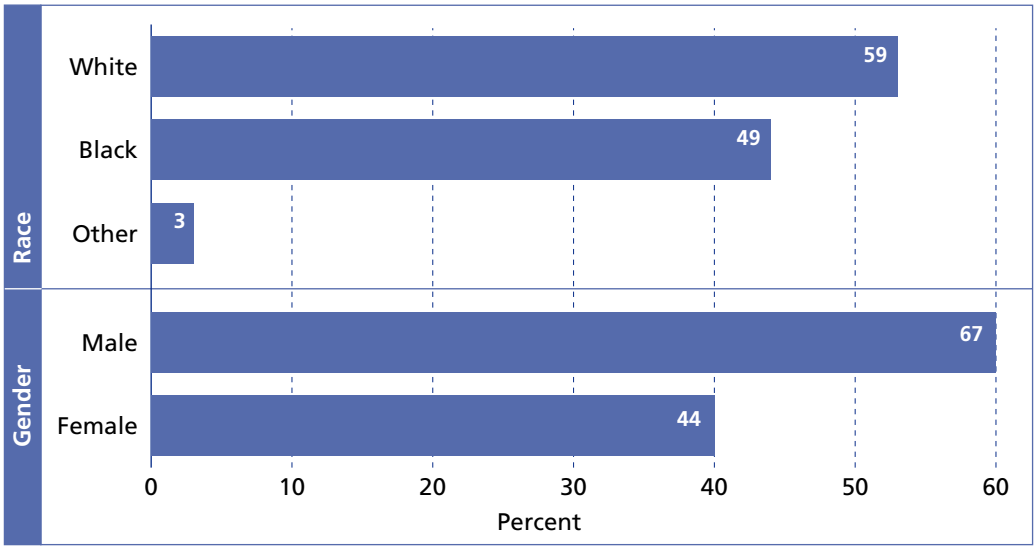
Local CFR boards reviewed 111 deaths to children from SIDS in 2002. These deaths represent 8 percent of all reviews conducted. There were greater percentages of SIDS deaths among boys (69 percent) and among blacks (44 percent) relative to their representation in the general population. Eighty-six percent of the SIDS deaths occurred before 6 month of age.

SIDS Death by Age at time of Death



Note: numerals in bars equal number of cases

SIDS Deaths by Race and Gender

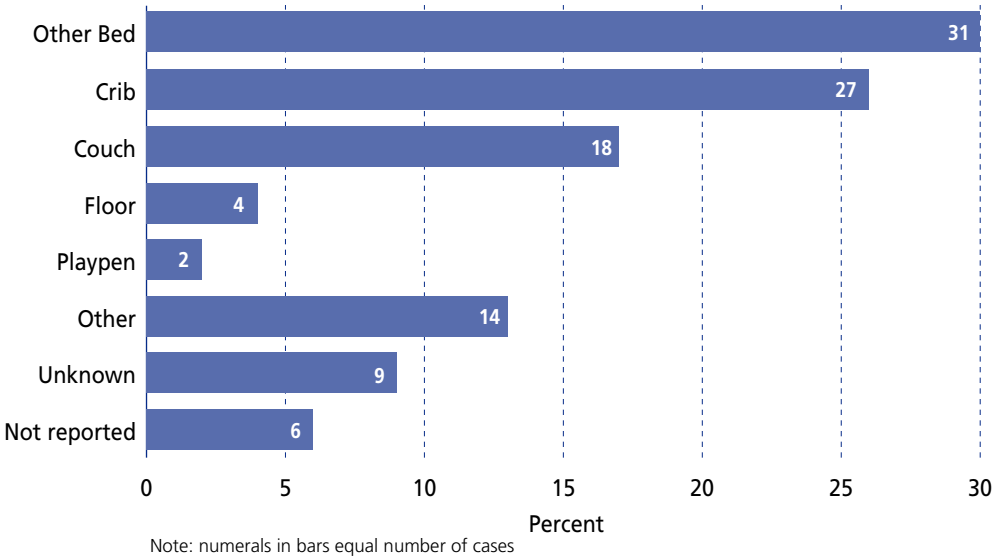


Note: numerals in bars equal number of cases

The CFR data reporting tool includes items surrounding the death that can lead to better understanding of the circumstances of SIDS deaths, so that policy and interventions can be developed to prevent future deaths. In spite of diligent efforts, CFR boards were not able to consistently supply information regarding normal infant sleeping position; second-hand smoke exposure; gestational age; breastfeeding status; overheating; heavy bedding; or sleep surface firmness.

Information about the location of the infant when found and bedsharing status was reported with sufficient frequency for analysis. Only 26 percent of SIDS deaths occurred in cribs, while 47 percent of SIDS deaths occurred in locations considered unsafe: in other types of beds and on couches. Thirty-five percent of infants who died of SIDS were sleeping with someone else at the time of death. Fifty-three percent of infants who died of SIDS before age 3 months were sleeping with someone else at the time of death.

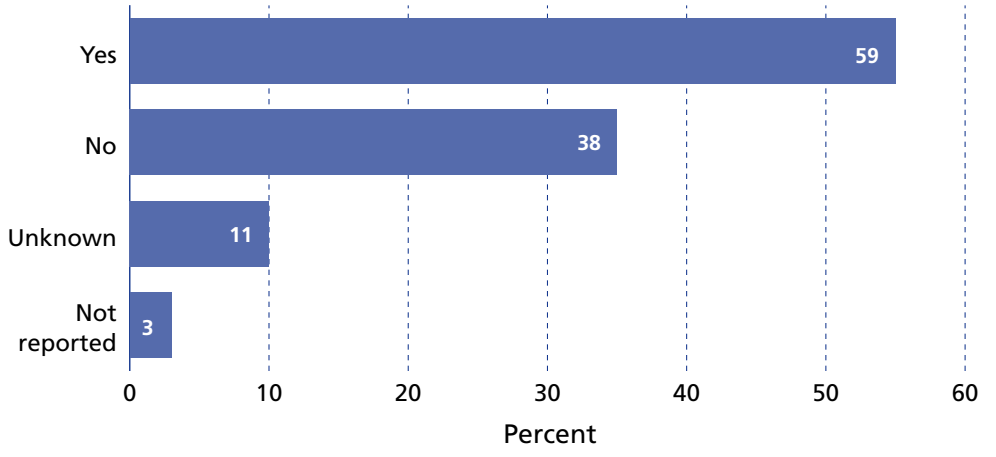
SIDS Deaths by Location of Infant When Found



Note: numerals in bars equal number of cases

SIDS Deaths by Infant Sleeping Alone

Age in months

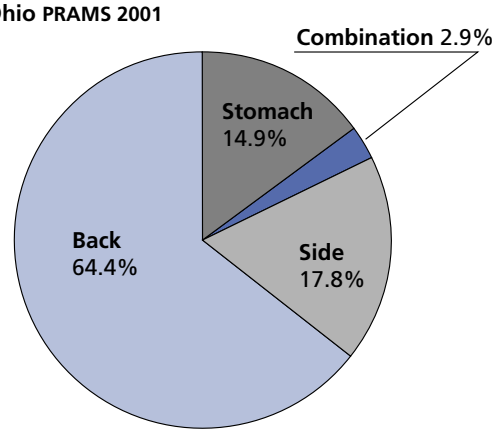


Information from PRAMS

To better understand the significance of CFR data and current risk reduction strategies, information from PRAMS (Pregnancy Risk Assessment Monitoring System) is presented. PRAMS is an ongoing, population-based surveillance system that was designed to identify and monitor selected self-reported maternal behaviors and experiences before, during and after pregnancy. According to PRAMS data, in 2001 64 percent of new mothers reported putting their infants to sleep on their backs. In spite of the "Back to Sleep Campaign" 36 percent of new mothers place their infants to sleep in positions other than on their back.

How do you put your new baby down to sleep most of the time?

Ohio PRAMS 2001



Examples of Local Recommendations

Local CFR boards made more than a dozen recommendations to reduce the risk of SIDS. Recommendations become initiatives only when resources, priorities and authority converge to make changes happen. Many recommendations were for the continued repetition of the Back to Sleep message, especially targeting minority families, grandparents and caregivers. Many boards recommended a broader message to include back to sleep in a safe sleep environment. More consistent diagnosis and death scene investigation were recommended to increase understanding of SIDS and other infant deaths.

Examples of Local Initiatives

- Many CFR boards report using existing programs such as WIC, Welcome Home, OIMRI projects and Help Me Grow to distribute a coordinated, repeated message regarding SIDS risk reduction.
- The Hocking County CFR board encouraged the newborn home visiting nurses to continue to educate new parents about the dangers of co-bedding.
- The Tuscarawas County CFR board shared information obtained through the review process with program directors of Welcome Home and Help Me Grow as well as the local birthing center, to create a stronger educational focus on SIDS prevention.
- To improve the information available for diagnosis and review, the Columbiana County CFR board is in the process of creating a Child Death Scene Investigative Team with core members representing the Coroner's Office, Sheriff's Office, Juvenile Court, Department of Job and Family Services and the Health Department.
- The Lucas County CFR board has encouraged hospitals and health providers to enhance promotion of Back to Sleep.

Other Sleep-related Deaths

Background

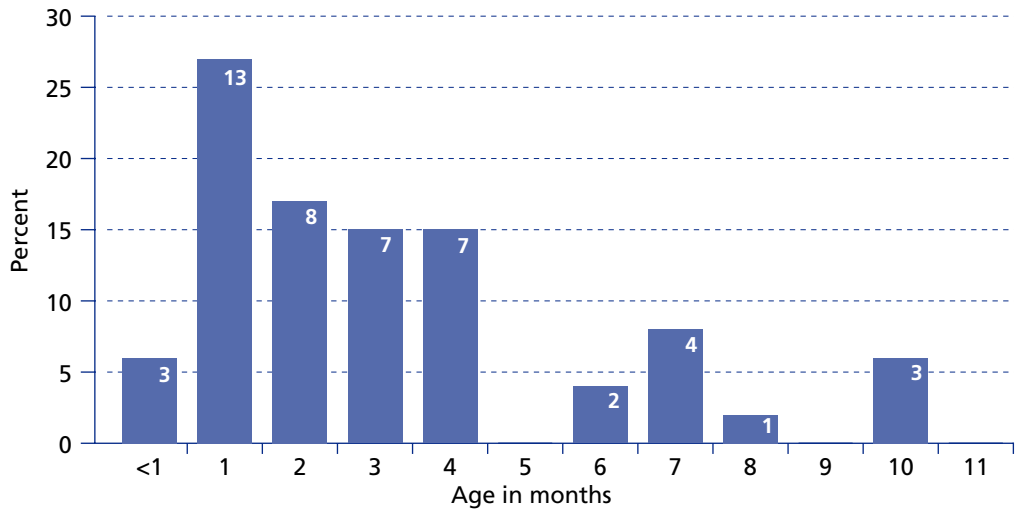
Since the beginning of the Ohio Child Fatality Review program in 2001, local boards have been faced with a significant number of deaths of infants while sleeping. Some of these deaths are diagnosed as SIDS, while others are diagnosed as accidental suffocation, positional asphyxia, overlay or undetermined. In order to better understand the contributing factors for these deaths, and then to develop prevention strategies, a special study of sleep related infant deaths was conducted this year.

For this study, Sleep-related Infant Deaths were defined using the CFR Case Report Tool. First, cases were identified by those infant cases of Suffocation where the circumstances were marked, "Other Person Lying on or Rolling on Child;" "Child on or Covered by Object;" or "Wedging." Additional cases were identified from the narrative descriptions for "Any Other Cause" section of the case report tool. Cases marked "SIDS" were excluded from the Sleep Related category, but were analyzed separately.

CFR Findings

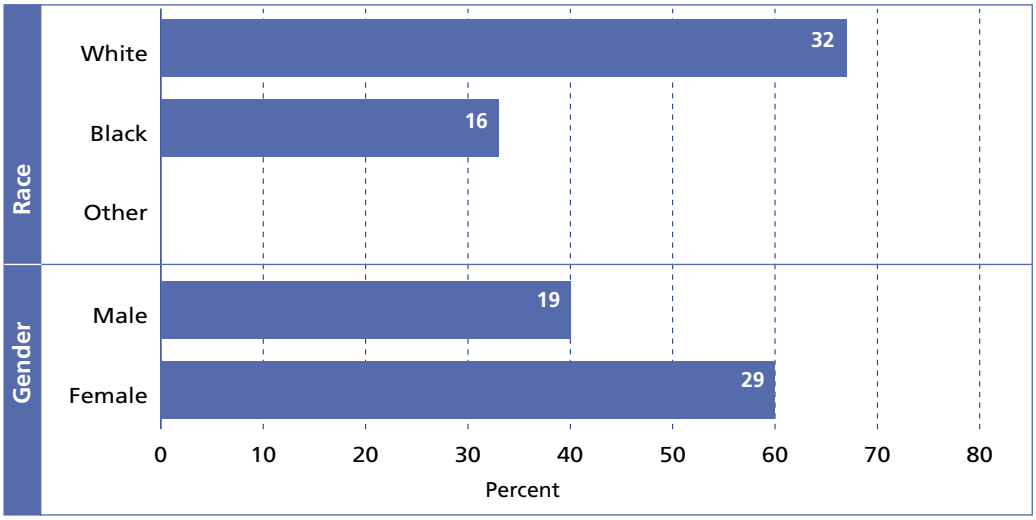
Forty-eight cases of Sleep-related Infant Deaths were identified from the reviews of 2002 deaths. (These cases are in addition to the 111 reviews for deaths from SIDS.) There were greater percentages of Sleep-related deaths among girls (66 percent) and among black infants (33 percent) relative to their representation in the general population. Seventy-nine percent of the deaths occurred before 6 months of age.

Sleep-related (non-SIDS) Death by Age



Note: numerals in bars equal number of cases

Sleep-related (non-SIDS) Death by Race and Gender

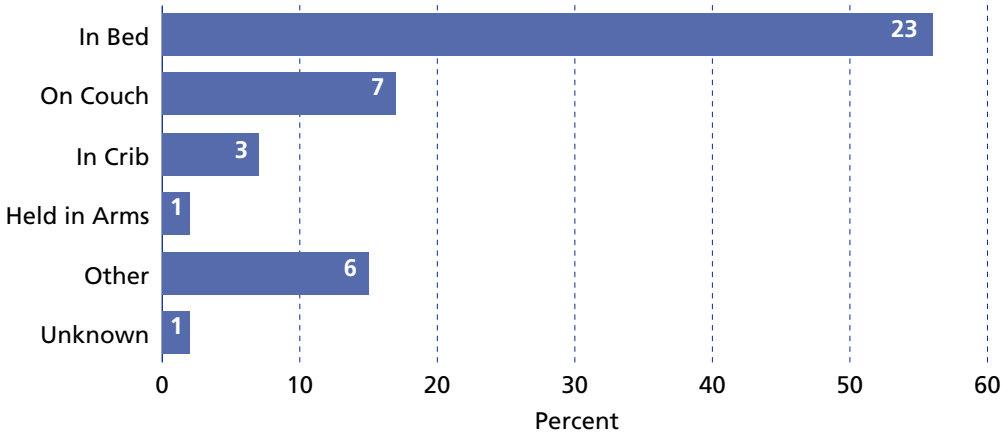


Note: numerals in bars equal number of cases

The CFR data reporting tool includes items surrounding the death that can lead to better understanding of the circumstances of Sleep-related deaths, so that policy and interventions can be developed to prevent future deaths. CFR boards were not able to consistently supply information regarding hazardous bed design; adult obesity; breastfeeding status; heavy bedding or sleep surface firmness.

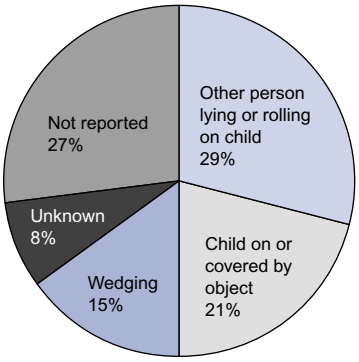
Information about the location of the infant when found; bedsharing status; and circumstances of event was reported with sufficient frequency for analysis. Only 7 percent of Sleep-related deaths occurred in cribs, while 71 percent of Sleep-related deaths occurred in locations considered unsafe: in other types of beds and on couches. Thirty-one of the forty-eight deaths occurred when another person laid or rolled onto the child, when the child was on or covered by an object or when the child became wedged.

Sleep-related (non-SIDS) Deaths Location of Child at Time of Death



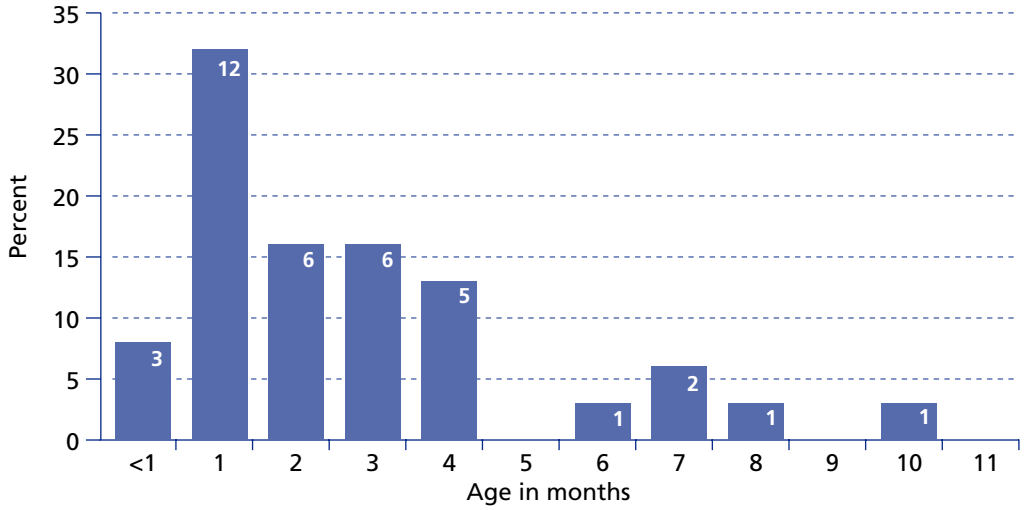
Note: numerals in bars equal number of cases

Circumstances of Sleep-related Death



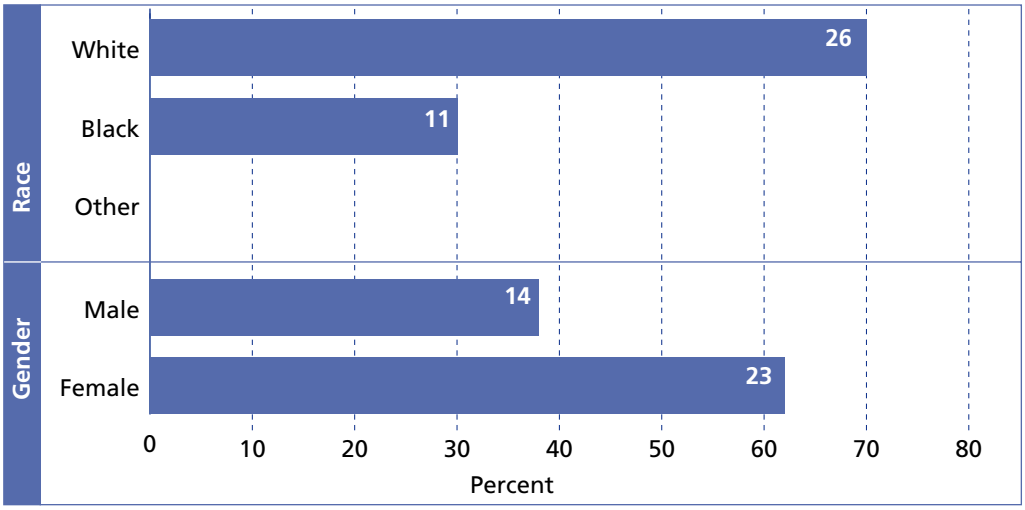
Bedsharing was the most frequently reported factor for Sleep-related Deaths. Thirty-seven (77 percent) of Sleep-related deaths occurred to infants who were sleeping with someone else at the time of death. Eighty-eight percent of infants who died of Sleep-related deaths before age 3 months were sleeping with someone else at the time of death. Inadequate supervision was mentioned in 12 of the 48 Sleep-related deaths. Alcohol and other drugs were mentioned as factors in five of the 48 Sleep-related deaths.

Sleep-related (non-SIDS) Death with Reported Bed Sharing by Age



Note: numerals in bars equal number of cases

Sleep-related (non-SIDS) Deaths with Reported Bed Sharing by Race and Gender

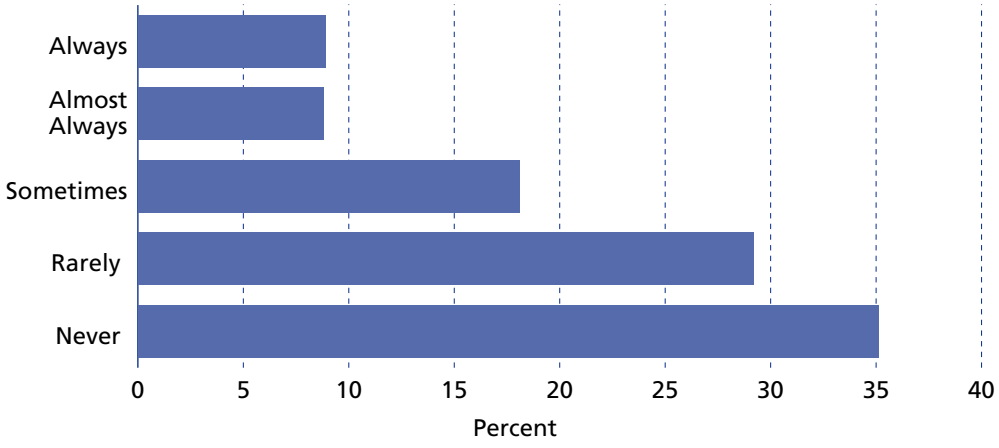


Note: numerals in bars equal number of cases

Information from PRAMS

To better understand the significance of CFR data, information from PRAMS is presented. PRAMS (Pregnancy Risk Assessment Monitoring System) is an ongoing, population-based surveillance system that was designed to identify and monitor selected self-reported maternal behaviors and experiences before, during and after pregnancy. According to Ohio PRAMS data, in 2001 64 percent of new mother report that their new baby rarely or never slept in the same bed with the mother or anyone else. Eighteen percent said their new baby always or almost always slept with someone else. When breastfeeding status was considered, 21 percent of mothers who breastfed their baby more than three months said their baby always or almost always slept with the mother or someone else.

How often does your new baby sleep in the same bed with you or anyone else? – Ohio PRAMS 2001

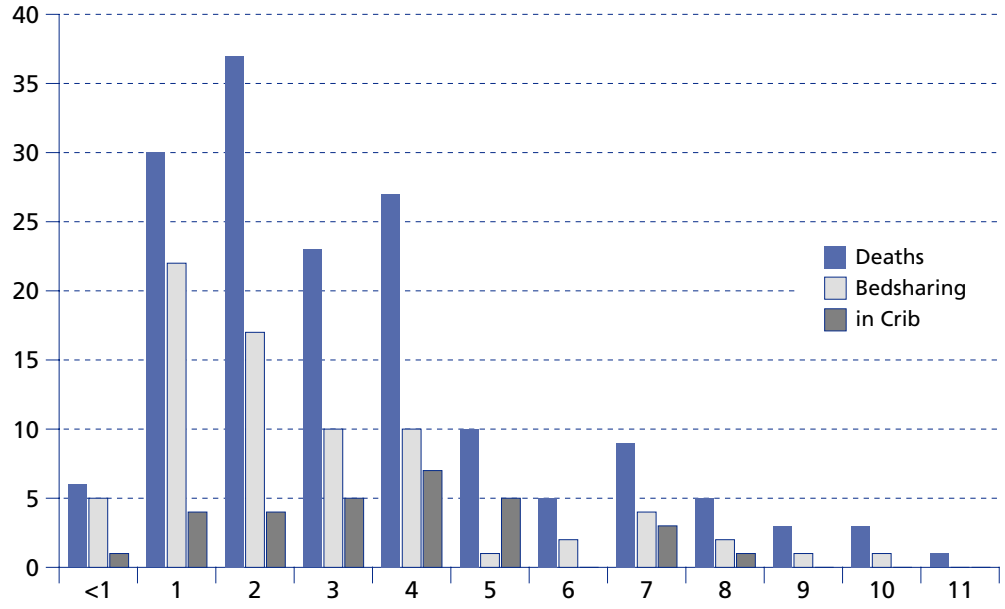


Note: numerals in bars equal number of cases

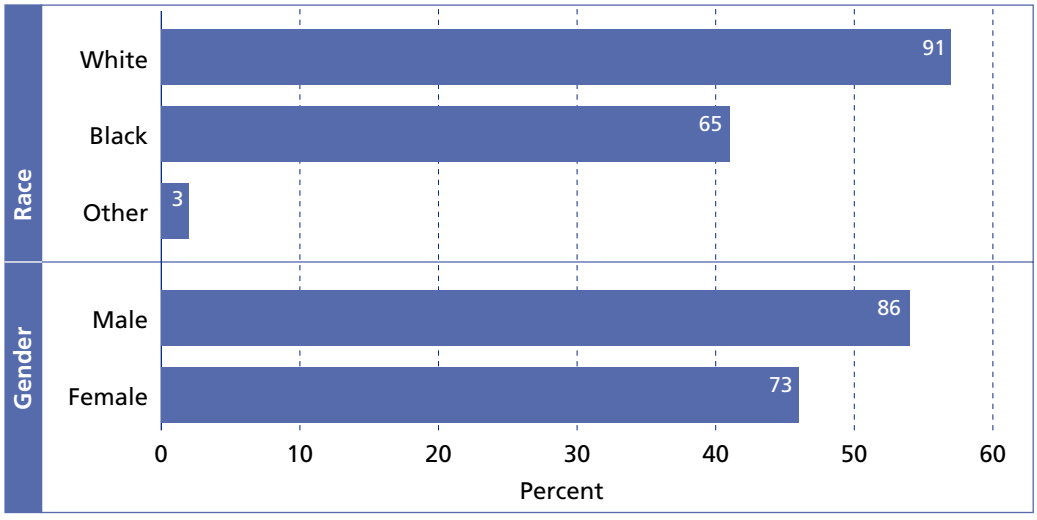
Looking at SIDS and Sleep-related Deaths Together

Common data items from the CFR data reporting tool were combined for cases of SIDS and Sleep-related Deaths. Data for location of infant when found and bedsharing status was reported with sufficient frequency for analysis. Of the combined 159 deaths, 47 percent occurred when the infant was sharing a bed with someone else. Only 19 percent of the combined deaths occurred in a crib.

SIDS and Sleep-related Deaths Combined: Bedsharing Status and Location in Crib by Age at Time of Death



SIDS and Sleep-related Death by Race and Gender



Note: numerals in bars equal number of cases

Examples of Local Recommendations

Local CFR boards made more than 20 recommendations for the prevention of Sleep-related deaths, particularly those attributed to suffocation. Recommendations become initiatives only when resources, priorities and authority converge to make changes happen. As with SIDS, many recommendations were for the continued repetition of the Back to Sleep message, especially targeting minority families, grandparents and caregivers. Many boards recommended a broader message to include back to sleep in a safe sleep environment and advocated a strong warning against bedsharing. More consistent diagnosis and death scene investigation were recommended to increase understanding of Sleep-related infant deaths.

Examples of Local Initiatives

In addition to the local activities listed for in the sections for SIDS and Suffocation deaths, many CFR boards such as Montgomery, Cuyahoga, Hamilton and Franklin counties have created subcommittees to examine the sleep related deaths in more depth. Information learned is shared through communitywide collaborations. Some CFR boards have issued letters to service providers, urging that the message of safe sleeping environment be included in all programs for young families. Montgomery County has developed a brochure.

Advisory Committee Recommendations

The Child Fatality Review Advisory Committee (CFRAC) reviews data to identify trends, provides expertise in understanding the factors related to child deaths and makes recommendations for the prevention of future deaths. As part of the special focus on Sleep-related Deaths, a subcommittee of statewide stakeholders was convened. Data from CFR, vital statistics and PRAMS was shared, as was research from peer-reviewed journals and statements from national organizations. Based on available data, the subcommittee concluded that bedsharing may be correlated with breastfeeding, but the correlation between bedsharing and infant death is much stronger. The subcommittee made the following recommendations:

- We must make opportunities to affect policy by sharing the CFR data regarding infant deaths, bedsharing and safe sleep with other programs within ODH and with external partners;
- We should continue to improve the quality of CFR data by supporting the use of a standard death scene investigation tool for all infant deaths.

Natural Deaths

Background

Natural Deaths are the result of some natural process, such as disease, prematurity or congenital defect. A death due to a natural cause can result from one of many serious health conditions. Many of these conditions are not believed to be preventable in the same way in which accidents are preventable. But there are some illnesses, such as asthma, infectious diseases and screenable genetic disorders, in which under certain circumstances, fatalities can and should be prevented. Many might be prevented through better counseling during preconception and pregnancy, earlier or more consistent prenatal care and smoking cessation. One in five infant deaths in the United States is caused by birth defects, making them the leading cause of death to infants (2001 CDC NCHS).

Deaths that occur to children younger than 1 year of age (infants) are often linked to prematurity and low birth weight. However, one in five infant deaths in the United States is caused by birth defects, making them the leading cause of death to infants (2001 CDC NCHS).

Vital Statistics

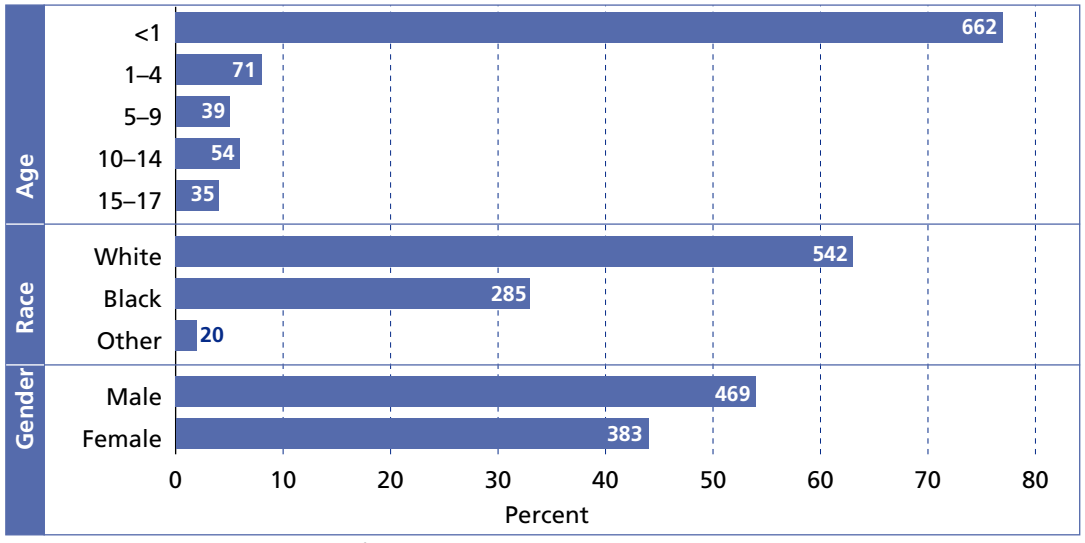
Ohio Vital Statistics reported 1,201 natural deaths to children in 2002. Seventy-eight percent (937) of these were for children less than 1 year of age.

CFR Findings

Local child fatality review (CFR) boards reviewed 861 deaths to children from natural causes in 2002, excluding SIDS deaths which are reported separately. Natural Deaths represent 63 percent of all reviews conducted. Seventy-seven percent of all Natural Deaths reviewed occurred to infants less than 1 year old. A greater percentage of Natural Deaths occurred among black children (33 percent) relative to their representation in the general population.

Examples of Local Recommendations

Natural Deaths by Age, Race and Gender



Note: numerals in bars equal number of cases

Local CFR boards made more than 20 recommendations for prevention of deaths due to natural causes. Recommendations become initiatives only when resources, priorities and authority converge to make changes happen. Local recommendations included:

- Promote early and adequate prenatal care; increase support for groups that work to decrease the use of tobacco, alcohol and drugs during pregnancy; and increase awareness of folic acid to prevent some neurotube defects;
- Improve access to early prenatal care; support community outreach programs to link pregnant women to services; and educate physicians on retroactive Medicaid billing;
- Promote research into causes of extreme prematurity and malignant neoplasm in children;
- Increase awareness among parents, teachers, coaches and children regarding the need for children with asthma to have inhalers available at all times, and to work with legislators and local providers to assure that children have back-up inhalers to keep with them at all times;
- Improve the speed of diagnosis and response for infectious diseases like Rock Mountain spotted fever.

Examples of Local Initiatives

- The findings and recommendations of local CFR boards have been cited in grant applications for Child and Family Health Services projects and for Ohio Infant Mortality Reduction Initiative projects.
- Members of the Clark County CFR board instituted an alert to area hospitals and the medical community after discovery that a neonate died of a dangerous infection.
- In response to the deaths of many premature infants in Medina County, information about prevention and recognition of pre-term labor is being distributed by local public health nurses.
- The Hamilton County CFR board formed an Infant Mortality Subcommittee to examine infant deaths in more depth. The Perinatal Data Use Consortium is examining contributing factors in neighborhoods where infant mortality is the highest. An intensive program of care coordination for high-risk, low-income African-American women has been initiated. Focus groups resulted in development of a booklet for high-risk women about getting the most out of their prenatal care.

Suffocation and Strangulation

Background

Although children can suffocate in a variety of ways, research shows that most child fatalities due to suffocation occur when the child is sleeping. A study conducted by the U.S. Consumer Product Safety Commission (CPSC) in October 1999 found that infants are placed at a significant risk for suffocation and strangulation when they are placed in adult beds to sleep. The CPSC reviewed incident data from January 1990 to December 1997 and found that a total of 515 deaths were linked to adult beds. Of the 515 deaths, 394 were entrapment deaths due to suffocation and strangulation. A total of 296 of the 394 deaths occurred in adult beds. In 1996 alone, nearly 670 children ages 14 and under died from airway obstruction injuries. Autopsies conducted on these child deaths often reveal no clinical conclusions. Because most child suffocation occurs during sleep and autopsy findings are non-conclusive, a significant challenge is presented to coroners and child death investigators who must distinguish these deaths from SIDS.

The leading cause of unintentional injury-related death among children under age 1 is airway obstruction. Often these occur because children are unable to breathe normally due to food or objects blocking their internal airways, known as choking, or materials covering their external air ways, often referred to as suffocation. Also, children die when they are unable to breathe due to objects wrapping around their neck. Children under the age 1 are most vulnerable to suffocation and strangulation.

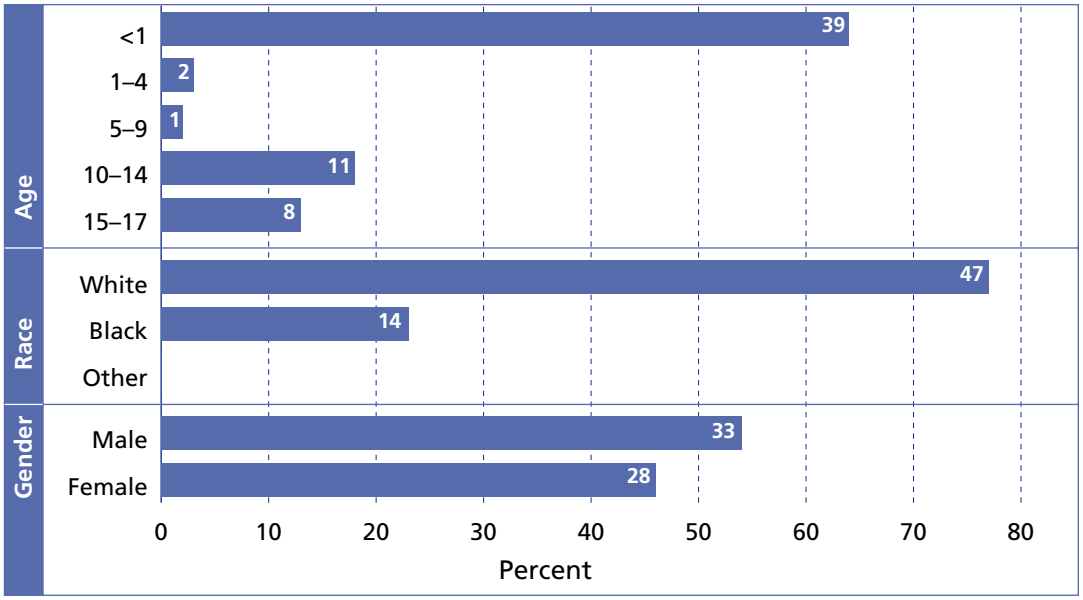
Vital Statistics

Ohio Vital Statistics reported 53 deaths from Suffocation and Strangulation to children in 2002.

CFR Findings

Local child fatality review (CFR) boards reviewed 61 deaths to children from Suffocation and Strangulation in 2002. These deaths represent 4 percent of all deaths reviewed. Thirty-three of the deaths reviewed were identified as Sleep-related deaths and are also discussed elsewhere in this report. While more than half of the deaths (64 percent) reviewed occurred to children less than 1 year of age, 31 percent are in children 10–17 years. Thirty-two percent of suicide deaths in 2002 were due to suffocation and strangulation to children in ages 10–17 years. In 31 percent of the deaths reviewed, the child was strangled by an object. In 25 percent of the deaths reviewed, another person laid or rolled on the child. A greater percentage of Suffocation and Strangulation deaths occurred among black children (23 percent) relative to their representation in the general population.

Suffocation and Strangulation Deaths by Age, Race and Gender



Note: numerals in bars equal number of cases

Suffocation and Strangulation by Circumstances of Event

Circumstances of Event	# of Times reported
Child Strangled by Object	18
Child Rolling on or Covered by Object	13
Other Person Lying on/Rolling on Child	15
Wedging	7
Unknown	4
Child Choking on Object	1
Other Person Using Hands/Object to Suffocate/Strangle Child	1
Total	**59**

Examples of Local Recommendations

Local child fatality review (CFR) boards made more than 20 recommendations for the prevention of Suffocation and Strangulation deaths, all of them addressing the sleeping environment. Recommendations to collaborate with health providers and other services providers to educate parents and child care providers about safe sleep environments were common. Other recommendations involved increasing the availability of safe cribs to low income families. Recommendations become initiatives only when resources, priorities and authority converge to make changes happen.

Example of Local Initiatives

The Montgomery County CFR board created a brochure titled Baby's Breath…Needed for Life. The brochure describes ways to create a safe sleep environment for infants.