

Ohio Child Fatality Review — Eighth-annual Report



Ohio Department of Health

Part 1 of 3

This report includes reviews of child deaths that occurred in 2006



Ohio Child Fatality Review — Eighth-annual Report

MISSION

To reduce the incidence of preventable child deaths in Ohio

SUBMITTED SEPTEMBER 30, 2008, TO

Ted Strickland, Governor, State of Ohio

Jon Husted, Speaker, Ohio House of Representatives

Bill Harris, President, Ohio Senate

Joyce Beatty, Minority Leader, Ohio House of Representatives

Ray Miller, 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





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DEDICATION

This report reflects the work of many dedicated professionals in every community throughout the State of Ohio who have committed themselves to gaining a better understanding of how and why children die. Their work is driven by a desire to protect and improve the lives of young Ohioans. Each child death represents a tragic loss for the family as well as the community. 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 community leaders who serve on Child Fatality Review (CFR) boards throughout the State of Ohio. Acknowledging that the death of a child is a community problem, members of the CFR boards step outside zones of personal comfort to examine all of the circumstances that lead to child deaths. We thank them for having the courage to use their professional expertise to work toward preventing future child deaths.

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 program improvements.

We acknowledge the generous contributions of other agencies in facilitating the CFR program including the Ohio Department of Mental Health; the Ohio Children's Trust Fund; the Ohio Department of Health, Division of Prevention and Office of Healthy Ohio; state and local vital statistics registrars; and the National Center for Child Death Review.

The collaborative efforts of all of these individuals and their organizations ensure Ohio children can look forward to a safer, healthier future.



Dear Friends of Ohio Children,

We are pleased to present the 2008 Ohio Child Fatality Review (CFR) Annual Report. The report contains information from reviews of child deaths that occurred in calendar year 2006.

The Ohio CFR program was established by law in July 2000 in response to the nearly 1,850 child deaths that occur in Ohio every year. Tragically, nearly one-fourth of these deaths probably could have been prevented. CFR was created to examine the factors contributing to these children's deaths in order to better understand how to prevent them.

The CFR process begins at the local level. Local boards in every county consist of public health, children's services, law enforcement, health care and recovery services professionals who come together to review the circumstances surrounding every child death in their county. Through their collective expertise and collaborative assessment comes a critical piece of the puzzle: recommendations for prevention. The attached report contains the local CFR boards' findings, including their recommendations to prevent other child deaths, as well as local initiatives that have resulted from the CFR process.

One child death that could have been prevented is too many. The work of the CFR guides the state in its efforts to implement programs and policies to protect our most valuable resource: our children. Please assist our efforts in sharing this report with your partners and others in your community at every opportunity.

Sincerely,

Alvin D. Jackson, M.D., Director
Ohio Department of Health

Candace Valach, Executive Director
Ohio Children's Trust Fund



EXECUTIVE SUMMARY

The 2008 Child Fatality Review (CFR) Annual Report presents information from the reviews of deaths that occurred in 2006.

Every child death is a tragic loss for the family and community. Through careful review of these deaths, we are better prepared to prevent future deaths.

The Ohio CFR Program was established in 2000 by the Ohio General Assembly in response to the need to better understand why children die. The law mandates CFR boards in each of Ohio's counties (or regions) to review the deaths of all children younger than 18. Ohio's CFR boards are comprised of multidisciplinary groups of community leaders. Their careful review process results in a thorough description of the factors related to child deaths.

In 2005, Ohio CFR boards began using a new case report tool and data system developed by the National Center for Child Death Review. The tool and data system underwent slight revisions in early 2007, based on feedback from the two-year pilot. As a result, the revised tool more clearly captures information about the factors related to the death and better captures the often complex conversations that happen during the review process. This report is based on data from the both the original and the revised system.

The comprehensive nature of the case report tool and the functionality of the data system have allowed more complete analysis for all groups of deaths. Each section of this report contains detailed data regarding the circumstances and factors related to child deaths. Special-focus sections offer in-depth information about identified groups of deaths such as suicide and child abuse deaths, demonstrating the potential of data analysis combined with the review process to identify risk factors and to give direction for prevention activities.

Of the 1,692 deaths reviewed, 71 percent (1,202) were due to natural manners. Accidents (unintentional injuries) accounted for 17 percent (289) of the deaths. Vehicular deaths accounted for 8 percent (127) of all deaths reviewed, making them the leading cause of injury deaths. These percentages have remained stable for the past five years of analysis.

CFR does make a difference. This report highlights many of the local initiatives that have resulted from the CFR process. These collaborations, partnerships and activities are proof that communities are aware that knowledge of the facts about a child death is not sufficient to prevent future deaths. The knowledge must be put into action. The following are examples of local initiatives:

- After a formal recommendation to the city manager and city solicitor by the Ashtabula CFR board, barrier fencing was erected at a hazardous location.
- Auglaize County has implemented an alcohol and drug education program for clients in the juvenile court's diversion program.
- Law enforcement agencies in Clark County are providing classroom education regarding the asphyxiation dangers of the "choking game" and other risky behaviors.
- Copies of the Centers for Disease Control and Prevention alert regarding cough and cold medicines for children were distributed throughout Coshocton County to parents, providers and general public.
- Several counties have obtained sponsorships for billboards, bus placards and other media promoting Back to Sleep and other safe sleep messages.
- Numerous CFR boards have been actively working to decrease vehicular deaths by sponsoring programs addressing the use of seat belts, access to child safety seats, safe driving behavior and improving driving skills for teen drivers.

The mission of CFR is to reduce the incidence of preventable child deaths in Ohio. Through the process of local reviews, communities and the state acknowledge that the circumstances involved in most child deaths are too complex and multidimensional for responsibility to rest with a single individual or agency. The CFR process has raised the collective awareness of all participants and has led to a clearer understanding of agency responsibilities and possibilities for collaboration on all efforts addressing child health and safety. It is only through continued collaborative work that we can hope to protect the health and lives of our children.



KEY FINDINGS

This 2008 Ohio Child Fatality Review (CFR) Annual Report contains information on child deaths that occurred in 2006.

A total of 1,696 reviews of 2006 child deaths were reported by 88 local CFR boards. Of these, 1,692 reviews were complete for manner and cause of death and were used for analysis. This represents 94 percent of all 1,800 child deaths for 2006, reported in data from Ohio Vital Statistics. Deaths that were not reviewed include cases still under investigation or involved in prosecution.

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

Sixty-five percent (1,094) of the deaths reviewed were to infants less than 1 year of age.

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Of the 1,692 deaths reviewed, CFR boards determined 23 percent (395) were probably preventable. Of the 289 deaths with accidental manner of death, 83 percent (239) were deemed probably preventable. Fifty-nine percent (116) of 198 reviews for children 15-17 years of age were deemed probably preventable.

Seventy-three percent (1,230) of the deaths reviewed were due to medical causes. Seventy-eight percent (965) of deaths due to medical causes were to infants less than 1 year of age. The most frequent medical cause of death was prematurity.

Four percent (74) of all deaths reviewed were from sudden infant death syndrome (SIDS). Twenty-three percent (17) of all SIDS deaths were to black children and 62 percent (46) were to boys. Twenty-three percent (17) of the SIDS victims were found in locations that are considered particularly unsafe such as in adult beds and on couches. At least 37 percent (27) of SIDS victims were exposed to cigarette smoke in utero or after birth. The proportions of SIDS victims who were very low birthweight, low birthweight or less than 37 weeks gestation are very similar to those proportions for all live births.

Twenty-six percent (444) of all deaths reviewed resulted from external causes.

Vehicular deaths accounted for 8 percent (127) of all deaths reviewed. Fifty-four percent (68) of these children were 15-17-year-olds and 84 percent (106) were white. Sixty-one percent (77) of the children killed were boys. Of the 88 deaths that occurred in cars, trucks, vans or SUVs, only 32 percent (28) of the children killed were reported to be using appropriate restraints.

Seven percent (116) of all deaths reviewed were from asphyxiation, including suffocation, strangulation and choking. More than half of the deaths (59 percent) occurred to children less than 1 year of age. Twenty-four percent (28) of the deaths from asphyxia were the result of suicide.

Weapons, including body parts used as weapons, accounted for 4 percent (71) of all deaths reviewed. Fifty-two percent (37) were youth 15-17 years old and 66 percent (47) were black children. The manner of death was accident for only 6 percent (four) of the weapons deaths.

Fire and burns accounted for 2 percent (37) of all deaths reviewed. Twenty-two percent (eight) were homicides. A smoke alarm was known to be present in only 21 percent (seven) of the 34 cases involving structure fires.

Less than 2 percent (25) of all deaths reviewed were from drowning and submersion. Forty percent (10) of the drowning deaths were to children under 5 years of age.

Poison deaths represented 1 percent (17) of all deaths reviewed. Seventy-seven percent (13) of the poison deaths occurred to children older than 10 years and four were suicides.

CFR boards identified child abuse and neglect as a cause or contributing factor in 28 deaths. Sixty-one percent were violent deaths, with 17 resulting from physical abuse.

There were 42 suicide deaths reviewed. This represents 3 percent of all reviews and 13 percent of all the reviews for children 10-17 years old. Ninety-one percent (38) were white children; 69 percent (29) were boys.

The number of sleep-related deaths is similar to past years. Sleep-related deaths accounted for 173 deaths to infants less than 1 year old, including 64 deaths due to SIDS. Thirty-six percent (63) of sleep-related deaths were to black infants. Fifty-four percent (94) of the sleep-related deaths occurred in locations considered unsafe such as in adult beds and on couches. Sixty-seven percent (115) occurred to infants who were sharing a sleeping surface (bedsharing) with someone else at the time of death.

Local CFR boards continue to make numerous recommendations for prevention and to share their recommendations and findings with others in the community. Fifty-one of the 88 counties shared information about local prevention initiatives and activities that have resulted from the CFR process.

OVERVIEW OF CHILD FATALITY REVIEW

Child deaths are often regarded as indicators 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, then-Gov. Bob Taft in July 2000, 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. For the complete law and administrative rules pertaining to CFR, refer to

CFR Mission:
To reduce
the incidence of
preventable child deaths.

the Ohio Department of Health (ODH) Web site at <http://www.odh.ohio.gov/rules/final/f3701-67.aspx>. 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 ODH of data, trends and patterns found in child deaths.

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

- 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, representatives from Ohio Family and Children First Councils, other child advocates and other child health and safety specialists. The health commissioner serves as board chairperson in many counties.

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.

Local CFR board review meetings are not open meetings and all discussion and work products are confidential.

Data are recorded and entered into a database for analysis. Each CFR board submits data to the state. To ensure confidentiality, no case-identifying information is provided to the state. In 2005, Ohio began implementation of a new national Web-based report tool and data system developed by the National Center for Child Death Review with a grant from the federal Maternal and Child Health Bureau. The tool and data system underwent slight revisions in early 2007, based on feedback from the two-year pilot. As a result, the revised tool more clearly captures information about the factors related to the death and better captures the often complex conversations that happen during the review process. This report is based on data from the both the 2005 and 2007 versions of the tool and system.

ODH is responsible for providing technical assistance and annual training to the CFR boards. Three training sessions were offered in 2007: a new board chair/coordinator orientation, Pennsylvania-Ohio CFR sharing day and death scene investigation training. ODH staff also coordinate the data collection, assure the maintenance of a Web-based data system and analyze the data reported by the local boards. The annual state report is prepared and published jointly with the Ohio Children's Trust Fund Board.

To assist moving CFR forward in Ohio, an advisory committee was established in 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.

This 2008 Ohio Child Fatality Review Annual Report includes information on the continued growth and development of the program as well as data from local reviews. The report has several important features this year:

- This report includes information from reviews of deaths that occurred in 2006. Including data for a single calendar year makes it easier to identify trends and to compare with other data sources such as vital statistics.
- This report includes additional detailed analysis for several causes of death including vehicular deaths, SIDS, sleep-related deaths, infant deaths and suicide.

- Many counties have initiated a variety of prevention activities as a result of the CFR 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.

This report presents information from the reviews of deaths that occurred in 2006. By reporting the information by year of death, it is possible to compare CFR data with data from other sources such as vital statistics. In making such comparisons, it is important to use caution and acknowledge the unique origins and purposes for each source of data. CFR data included in this report are the outcome of thoughtful inquiry and discussion by a multi-disciplinary group of community leaders who consider all the circumstances surrounding the death of each child. They bring to the review table information from a variety of agencies, documents and areas of expertise. Their careful review process results in a thorough description of the factors related to child deaths.

In spite of their best efforts, CFR boards are not able to review every child death. Some reviews must be delayed until all legal investigations and prosecutions are completed. Some deaths occur outside the county of residence or outside the state, resulting in long delays in notification for the CFR board. Because of these variables, it is usually impossible to find an exact number-for-number match between CFR data and data from other sources such as vital statistics. The unique role of CFR data is to provide a comprehensive depth of understanding to augment other, more one-dimensional data sources.

PREVENTION INITIATIVES

Since the establishment of Ohio Child Fatality Review (CFR) in 2000, numerous local CFR boards have made recommendations for prevention of future deaths. Recommendations become initiatives only when resources, priorities and authority converge to make changes happen. This means that CFR boards must share their findings and recommendations with others who can spread the influences for change. There are many examples of such partnerships leading to successful implementation of CFR recommendations.

Fifty-one of the 88 counties reported local prevention initiatives resulting from the CFR process.

- Ohio's Graduated Driver License law revisions limiting the number of child passengers for teen drivers and establishing a curfew for young drivers were supported by grassroots efforts of many local CFR boards. Those boards have continued to remain active in broadcasting the changes and advocating for strict enforcement by parents as well as law enforcement. In addition to continued efforts in most counties to improve teen driver education and infant car seat programs, local CFR boards are addressing specific issues regarding vehicular deaths in their community. In Holmes County, a partnership with the Amish community developed ways to improve the visibility of pony carts. Fulton County received funds from Family and Children First Council for the Parents who Host program, addressing underage drinking.

- Many counties are addressing sudden infant death syndrome (SIDS) and other sleep-related deaths with a variety of programs that target minority families, grandparents, caregivers and health professionals. The risk reduction message has been expanded beyond Back to Sleep to include the risks of inappropriate bedding and bedsharing. CFR boards have shared their findings with health care providers, child advocates, prevention programs and social service agencies to enlist communitywide partners for Safe Sleep campaigns. Allen County conducted a coordinated campaign with billboards, public service announcements, bus and kiosk placards, infant T-shirts and patient-education brochures to increase awareness of risk-reduction measures. Larger counties have focused on educating birth hospital staff on the importance of incorporating safe-sleep practices in the newborn nursery policies. Franklin County is evaluating the first phase of its hospital education program. Other counties such as Lucas are involved in providing free or low-cost cribs to families in need. Athens County sends a letter to parents of newborns one to two weeks after discharge to repeat the risk reduction messages given at the hospital. Most counties are using existing programs such as Help Me Grow (HMG), Women Infant and Children (WIC), Head Start and perinatal clinics to distribute the safe sleep message.
- Youth suicide prevention is a priority in many counties due to input from CFR. County suicide prevention coalitions and task forces focus on increasing awareness of suicide, reducing the factors that increase the risk of suicide, identifying youth at risk and increasing the availability of mental health services. Cuyahoga County conducted a coordinated suicide prevention awareness campaign. In Wood County, a series of community meetings, in-services and front page newspaper articles aimed to increase public and professional awareness of the link between depression and suicide as well as advertise crisis help phone numbers.

- The CFR process has led to a developing awareness of the impact of mental illness and stress on the ability of adults to care for and nurture children. Lake County has recommended that parents with children with complicated medical conditions be referred for mental health services to prevent issues of non-compliance and to improve coping strategies. Carroll County hosts a professional training focusing on grief after the death of a child.
- To address needs identified through the reviews of many infant deaths, collaborative groups have been organized in some counties to promote early prenatal care and healthy lifestyles for pregnant women. Typical partners include HMG, WIC, Child and Family Health Services projects, local physicians, schools and other health and social service providers. Lucas County formed a Preconception Health Committee to develop strategies to educate women to be as healthy as possible before becoming pregnant. Muskingum County is exploring ways to promote the use of a new federally qualified health center as a primary care provider to encourage a medical home for all children.
- The CFR process has a positive impact on the participating agencies. Many boards report an increase in cooperation and understanding between participating agencies and some have

developed written policies to facilitate communication. The review process stimulates discussion about existing services in communities, identifying gaps in services, access barriers, the need to maximize use of existing services and opportunities for increased collaboration. The Portage County prosecutor, a member of the local board, sent a letter to all local law enforcement agencies stressing the importance of forwarding their agency investigations to the CFR board as well as children's protective services. Harrison County has developed a new protocol for sharing of information from law enforcement and emergency squads with the CFR board. Defiance County is organizing law enforcement agencies to adopt a standard infant death scene investigation procedure.

- To accomplish the goal of preventing child deaths, CFR boards must share their findings with others in the community through a variety of means. Franklin County published a booklet, *Top 10 Tips for Healthier, Safer Children*, designed to help parents to identify threats to the well-being of their children. Brown County regularly publishes educational articles in the local newspapers. Many CFR boards are actively sharing with the Family and Children First Councils and the Child and Family Health Services Consortia.

2008 DATA REPORTING

By April 1 of each year local Child Fatality Review (CFR) boards must submit a report to the Ohio Department of Health (ODH) 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.

This report includes only information from reviews of deaths that occurred in 2006. 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 1,696 reviews of 2006 child deaths reported by April 1, 2008. Of these, 1,692 were complete for manner and cause of death and used for analysis. This represents 94 percent of all child deaths (1,800) in Ohio for 2006, based on data from Ohio Vital Statistics. All 88 counties submitted reports although not all counties reported reviews. More than 200 recommendations for prevention were submitted. Fifty-one of the 88 counties shared information about local prevention initiatives and activities that have resulted from the CFR process.



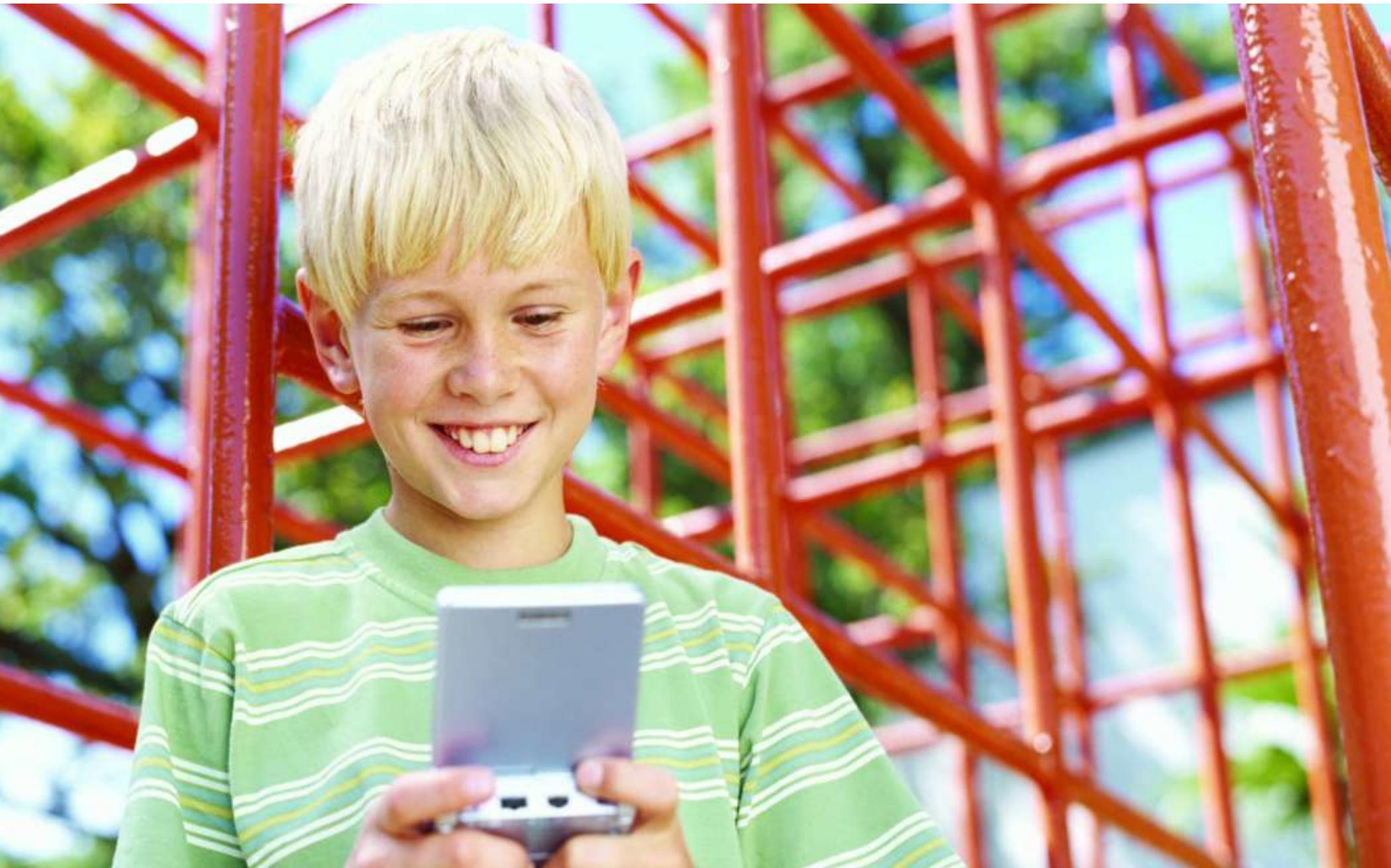
LIMITATIONS

Current Ohio law regarding CFR is unique among the states with CFR laws in that Ohio does not provide for the protection of confidentiality of information at the state level. The Ohio Administrative Code 3701-67-07 specifically states that the annual reports provided to 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 limited in its ability to investigate discrepancies in the number of county deaths reported by Vital Statistics and the number of reviews conducted by the county.
- ODH is limited in its ability to explain differences in the number of deaths by cause of death reported by Vital Statistics and the number of reviews conducted for each cause.
- In-depth evaluation of contributing factors associated with child deaths is limited in some cases by small cell numbers and lack of access to relevant data.

The ICD-10 codes used for classification of Vital Statistics data in this report may not match the codes used for some causes of death in other reports or data systems. The codes used for this report can be found in the appendices.

Since the inception of statewide data collection in 2001, Ohio CFR has used two different data systems, and the latest system has undergone improvements and revisions. Because of the differences in data elements and classifications, data in this annual report may not be comparable to data in previous reports.



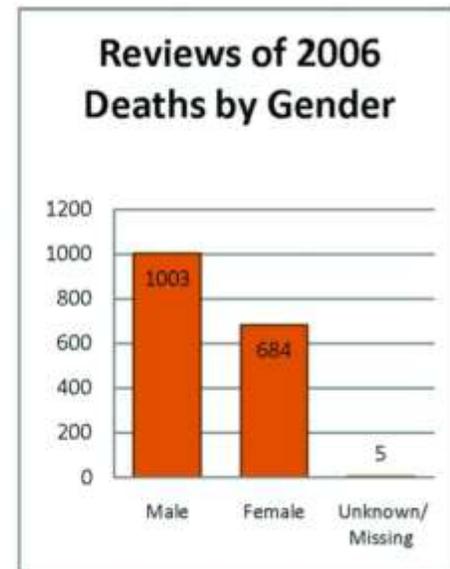
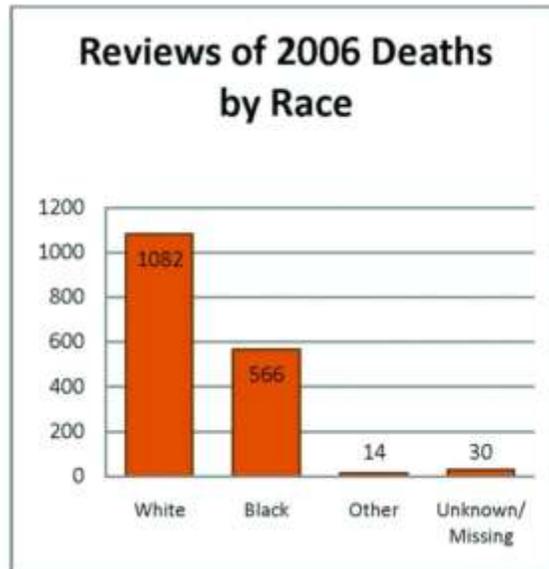
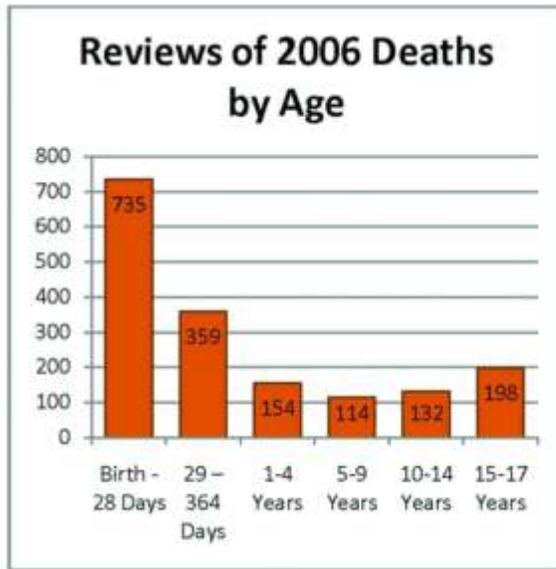
SUMMARY OF REVIEWS FOR 2006 DEATHS

ALL REVIEWS

Local child fatality review (CFR) boards reviewed the deaths of 1,692 children who died in 2006. Sixty-five percent (1,094) of the reviews were for children less than 1 year of age. There were greater percentages of reviewed deaths among boys (59 percent) and among black children (34 percent) relative to their represen-

tation in the general Ohio population (51 percent for boys and 16 percent for black children, per Ohio Vital Statistics).

Local boards indicated 23 percent (395) of the 1,692 deaths reviewed probably could have been prevented. Deaths of accidental manner were considered the most preventable (83 percent) and deaths of natural manner were considered the least preventable (3 percent).





REVIEWS BY MANNER OF DEATH

Manner of death is a classification of deaths based on the circumstances surrounding a cause of death and how the cause came about. The five manner-of-death categories on the Ohio death certificate are natural, accident, homicide, suicide or undetermined. For deaths being reviewed, CFR boards report the manner of death as indicated on the death certificate.

Reviews of 2006 Deaths by Manner of Death by Age, Race and Gender												
	Natural		Accident		Homicide		Suicide		Undetermined/ Pending/ Unknown		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Age												
1-28 Days	710	59	13	5					12	16	735	43
29 – 364 Days	240	20	57	20	10	12			52	68	359	21
1-4 Years	87	7	42	15	18	22			7	9	154	9
5-9 Years	55	5	42	15	13	16			4	5	114	7
10-14 Years	64	5	43	15	12	15	12	29	1	1	132	8
15-17 Years	46	4	93	32	28	35	30	71	1	1	198	12
Race*	#	%	#	%	#	%	#	%	#	%	#	%
White	751	63	222	77	25	31	38	91	46	60	1082	64
Black	415	35	61	21	56	69	4	10	30	39	566	34
Other	10	1	3	1					1	1	14	1
Unknown/Missing	26	2	4	1							30	2
Gender	#	%	#	%	#	%	#	%	#	%	#	%
Male	682	57	186	64	59	73	29	69	45	58	1003	59
Female	516	43	104	36	22	27	13	31	31	40	684	40
Unknown/Missing	4	<1							1	1	5	<1
Total	1202	71%	290	17%	81	5%	42	3%	77	5%	1692	100%

Percents may not total 100 due to rounding.
*17 cases with multiple races indicated were assigned to the minority race.

NATURAL DEATHS (1,202) accounted for 71 percent of all deaths reviewed.

- Seventy-nine percent (950) of all natural deaths were to infants less than 1 year old.
- Fifty-seven percent (682) of the natural deaths were to boys and 35 percent (415) were to black children.

ACCIDENTS (Unintentional Injuries) (290) accounted for 17 percent of all deaths reviewed.

- Thirty-two percent (93) of all unintentional injury deaths were to youth aged 15-17 years.
- Sixty-four percent (186) of unintentional injury deaths were to boys and 21 percent (61) were to black children.

HOMICIDE (81) accounted for 5 percent of all deaths reviewed.

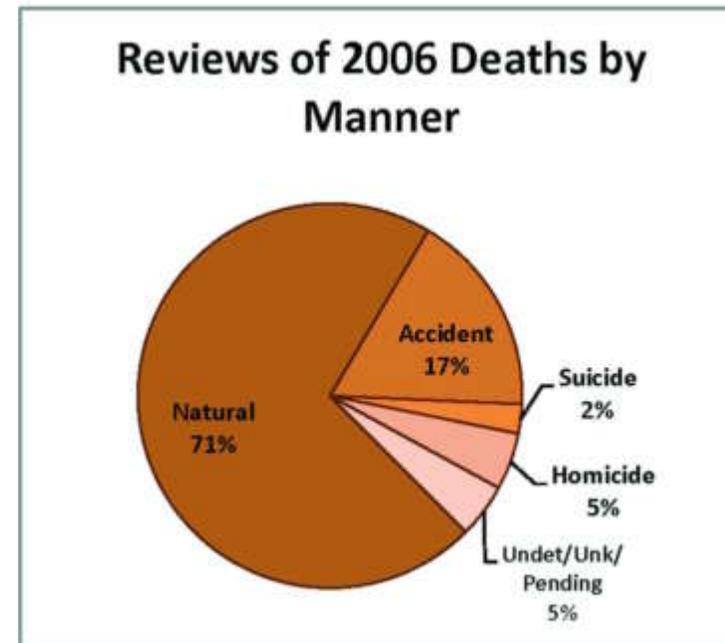
- Thirty-five percent (28) of all homicides were to children under 5 years of age, 31 percent (25) were to children ages 5-14 years and 35 percent (28) were to youth aged 15-17 years.
- Seventy-three percent (59) of homicides occurred to boys and 69 percent (56) to black children.

SUICIDE (42) accounted for 3 percent of all deaths reviewed.

- Seventy-one percent (30) of all suicide deaths were to youth ages 15-17 years. There were no suicide deaths to children under 10 years of age.
- Sixty-nine percent (29) of suicide deaths were to boys and 91 percent (38) were to white children.

UNDETERMINED, PENDING and UNKNOWN (77) accounted for 5 percent of all deaths reviewed.

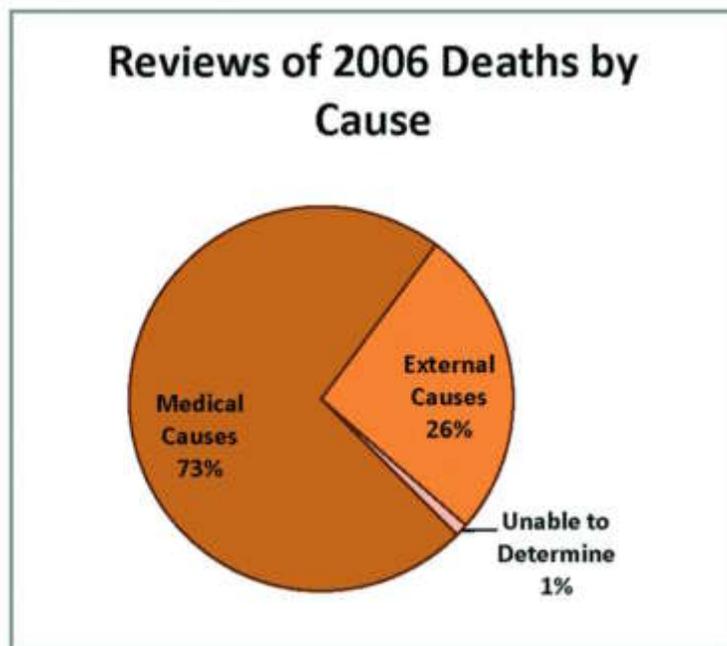
- Eighty-three percent (64) of all undetermined, pending and unknown manner of deaths were among infants less than 1 year of age.
- Fifty-eight percent (45) of undetermined, pending and unknown manner of deaths were to boys and 39 percent (30) were to black children.



REVIEWS BY CAUSE OF DEATH

The CFR case report tool and data system implemented in 2005 classify causes of death by medical causes and external causes. Medical causes are further specified by particular disease entities. External causes are further specified by the nature of the injury.

- Seventy-three percent (1,230) of the 1,692 reviews of 2006 deaths were due to medical causes.
- Twenty-six percent (444) of the 1,692 reviews of 2006 deaths were due to external causes.
- Eighteen cases could not be determined as medical cause or external cause.





DEATHS FROM MEDICAL CAUSES

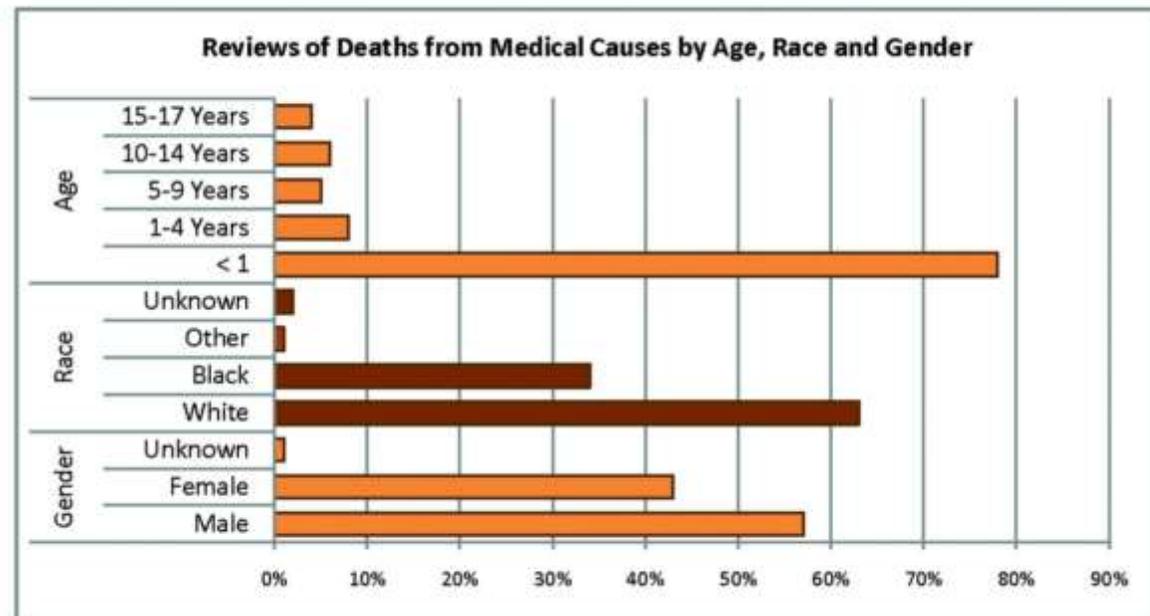
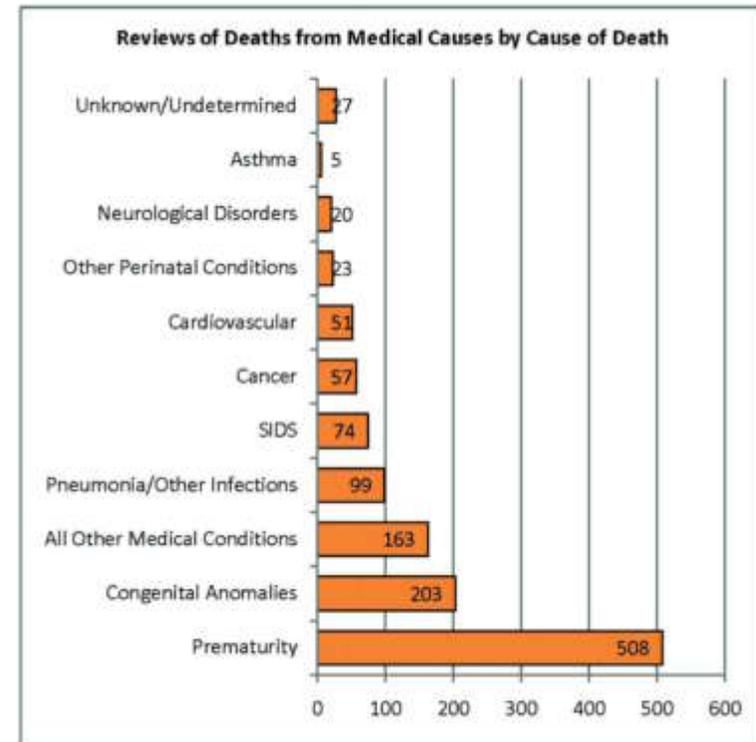
Background

Deaths from medical causes are the result of some natural process such as disease, prematurity or congenital defect. A death due to a medical cause can result from one of many serious health conditions.

Many of these conditions are not believed to be preventable in the same way accidents are preventable. But there are some illnesses such as asthma, infectious diseases and screenable genetic disorders, in which under certain circumstances, fatalities may be prevented. Many might be prevented through better counseling during preconception and pregnancy, earlier or more consistent prenatal care and smoking cessation counseling. While some conditions cannot be prevented, early detection and prompt, appropriate treatment can often prevent deaths.

Vital Statistics

Ohio Vital Statistics reported 1,297 children who died of medical causes in 2006, including 98 from sudden infant death syndrome (SIDS). For this report, ICD-10 codes used for classification of Vital Statistics data were selected to most closely correspond with the causes of death indicated on the CFR Case Report Tool. Therefore, the ICD-10 codes used for this report may not match the codes used for other reports or data systems. The codes used for this report can be found in the appendices.



CFR Findings

- Seventy-three percent (1,230) of the 1,692 reviews for 2006 deaths were from medical causes, including 74 deaths from SIDS.
- Seventy-eight percent (965) of the 1,230 reviews for medical causes were to infants under the age of 1 year.
- Fifty-seven percent (696) of the 1,230 reviews for medical causes were to male children.
- Thirty-four percent (422) of the 1,230 reviews for medical causes were to black children, which is disproportionate to their representation in the Ohio child population (16 percent).
- The CFR data system provides a list of 15 medical conditions in addition to an "Other" category for classifying deaths from medical causes more specifically.
- Prematurity, congenital anomalies and pneumonia/other infections were the three leading medical causes of death.
 - Forty-one percent (508) were due to prematurity.
 - Seventeen percent (203) were due to congenital anomalies.
 - Eight percent (99) were due to pneumonia and other infectious conditions.

Age	All Medical Causes		Prematurity		Congenital Anomalies		Pneumonia/ Other Infections	
	#	%	#	%	#	%	#	%
1-28 Days	714	58	474	93	112	55	17	17
29 – 364 Days	251	20	34	7	53	26	35	35
1-4 Years	94	8			19	9	20	20
5-9 Years	56	5			7	3	12	12
10-14 Years	68	6			9	4	7	7
15-17 Years	47	4			3	1	8	8
Race	#	%	#	%	#	%	#	%
White	772	63	250	49	138	68	70	70
Black	422	34	247	49	54	27	27	27
Other	10	<1	3	<1	3	1	2	2
Unknown/Missing	26	2	8	2	8	4		
Gender	#	%	#	%	#	%	#	%
Male	696	57	287	57	112	55	62	62
Female	530	43	221	44	90	44	36	36
Unknown/Missing	4	<1			1	<1		
Total	1230	100%	508	41%	203	17%	99	8%

Percents may not total 100 due to rounding.
Cases with multiple races indicated were assigned to minority race.
*12 additional specific causes and "other" accounted for remaining 34% of reviews for medical causes.

DEATHS FROM MEDICAL CAUSES

SUDDEN INFANT DEATH SYNDROME

Background

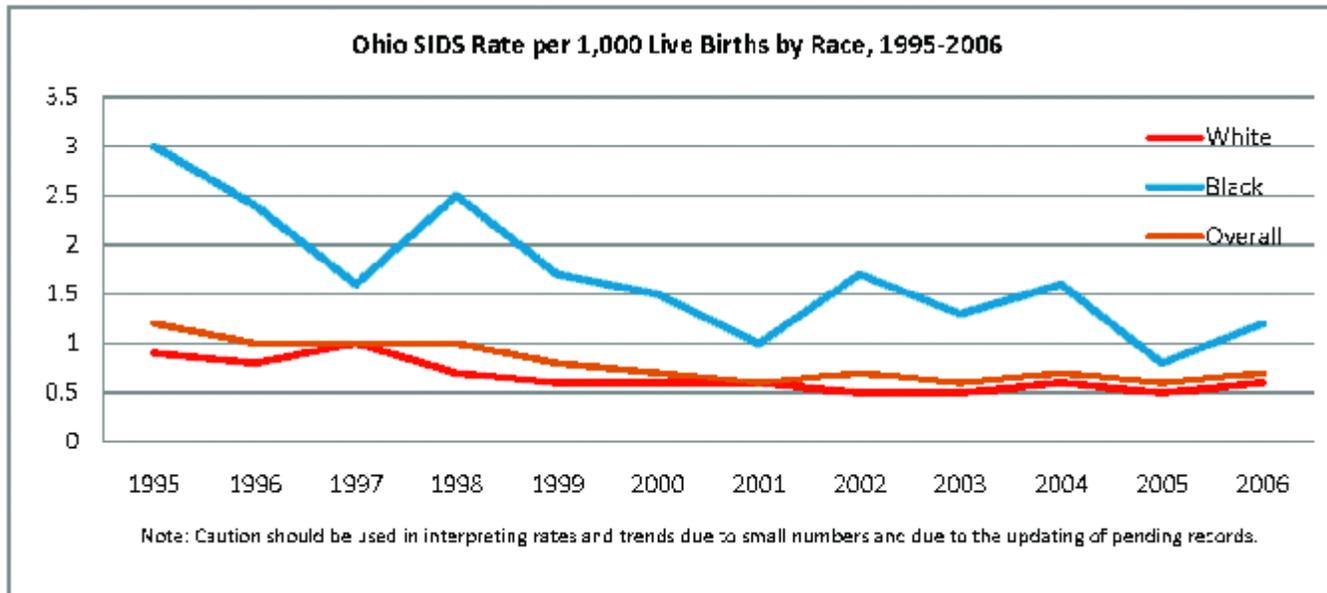
Sudden infant death syndrome (SIDS) is a medical cause of death. It is the diagnosis given the sudden death of an infant under 1 year of age that remains unexplained after the performance of a complete postmortem investigation, including an autopsy; an examination of the scene of death; and review of the infant's health history.¹ According to the National Institute of Child Health and Human Development, SIDS is the leading cause of death in infants between 1 month and 1 year of age.² There is a large racial disparity, with the SIDS rate for black infants often more than twice the rate for white infants. While the national SIDS death rate has decreased, the post-neonatal mortality rates have not decreased and the rate of "undetermined causes" has increased, suggesting that some deaths previously classified as SIDS are now being classified as other causes.³

In an October 2005 policy statement, the American Academy of Pediatrics recognized nationwide inconsistencies in the diagnosis of sudden, unexpected infant deaths. Deaths with similar circum-

stances have been diagnosed as SIDS, accidental suffocation, positional asphyxia or undetermined.⁴ Because SIDS is a diagnosis of exclusion, all other probable causes of death must be eliminated through autopsy, death scene investigation and health history. Incomplete investigations, ambiguous findings and the presence of known risk factors for other causes of deaths result in many sudden infant deaths being diagnosed as "undetermined cause" rather than SIDS. The difficulty of obtaining consistent investigations and diagnoses of infant deaths led the Centers for Disease Control and Prevention (CDC) to launch an initiative to improve investigations and reporting.⁵ Many Ohio counties are developing protocols to adopt the CDC's Sudden Unexpected Infant Death Investigation tool and procedures.

Although 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. Soft sleep surfaces, excessive loose bedding and bedsharing increase the risk of sleep-related deaths.⁶

A discussion of the data regarding all sleep-related infant deaths regardless of diagnosis assigned appears later in this report.

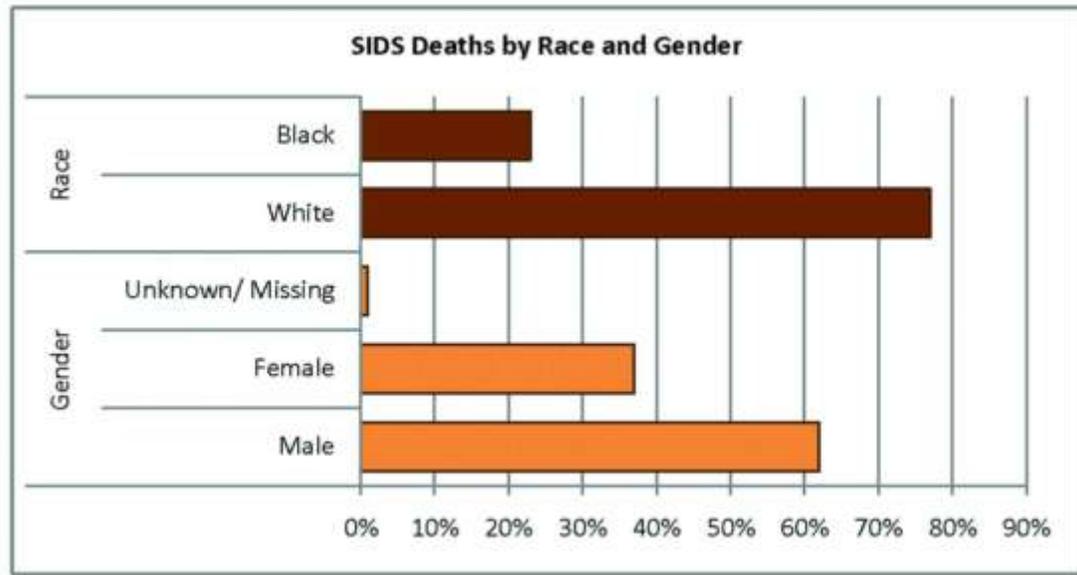
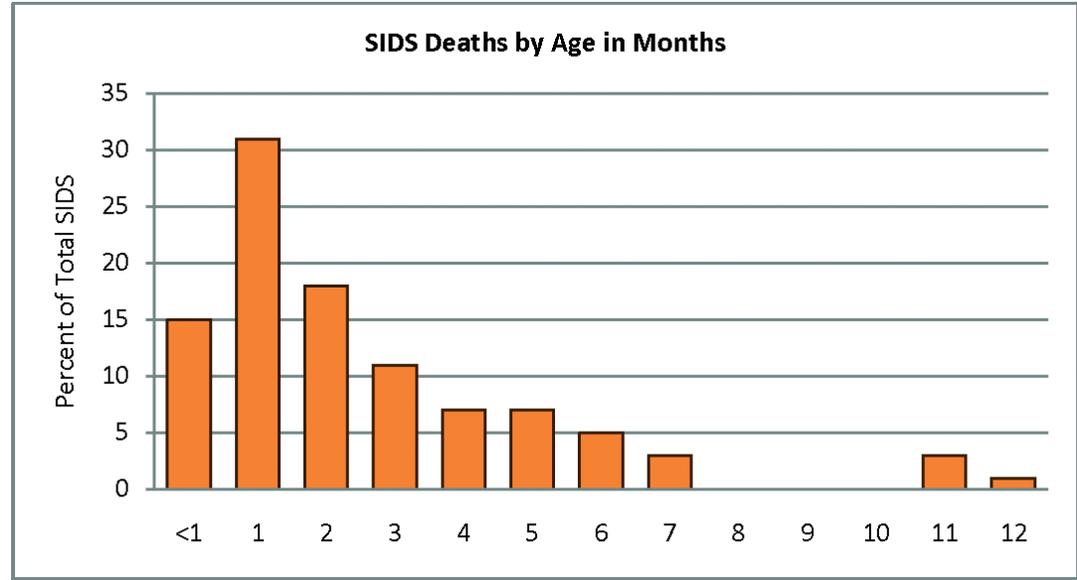


Vital Statistics

Ohio Vital Statistics reported 98 SIDS deaths to infants in 2006. According to Ohio Vital Statistics, the Ohio SIDS rate has decreased 50 percent in the past decade, from 1.2 deaths per 1,000 live births in 1995 to 0.7 in 2006. The disparity between the SIDS rates for white and black infants remains large, with the rate for black infants twice the rate for white infants in 2006. For this report, ICD-10 codes used for classification of Vital Statistics data were selected to most closely correspond with the causes of death indicated on the CFR Case Report Tool. Therefore, the ICD-10 codes used for this report may not match the codes used for other reports or data systems. The codes used for this report can be found in the appendices.

CFR Findings

- Local CFR boards reviewed 74 deaths to children from SIDS in 2006. These deaths represent 4 percent of all 1,692 reviews conducted.
- There were greater percentages of SIDS deaths among boys (62 percent) and among black infants (23 percent) relative to their representation in the general population (51 percent for boys and 16 percent for black children).
- Seventy-three percent (54) of the SIDS deaths reviewed occurred between 1 and 6 months of age.

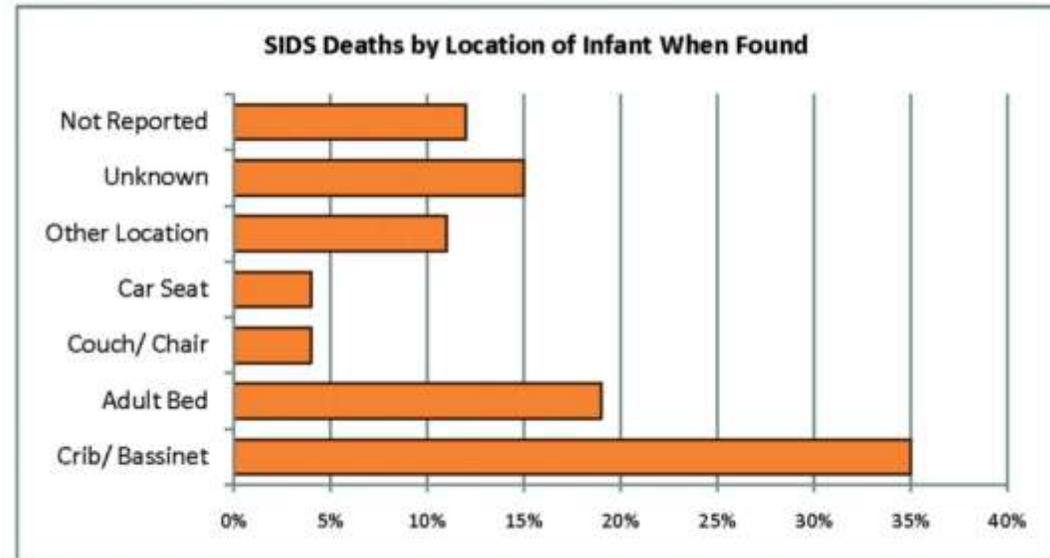


It should be noted the number of reviews for SIDS deaths is significantly more than was reported for 2005, when an uncharacteristically low number of 57 reviews were reported. The number of infant sleep-related deaths has remained steady over the years. A discussion of the data regarding sleep-related deaths from all causes appears later in this report in the Deaths in Special Circumstances section.

The CFR data reporting tool includes items surrounding the death that can lead to better understanding of the circumstances of SIDS deaths. Many of these items are referred to as risk factors, because their presence seems to increase the risk of an infant dying of SIDS, but they are not the cause of SIDS. It is important to analyze these items so policies and interventions can be developed to prevent future deaths.

Information about the location of the infant when found, bedsharing and some birth health history was reported with sufficient frequency for analysis.

- Thirty-five percent (26) of SIDS deaths occurred in cribs or bassinets, while 23 percent (17) of SIDS deaths occurred in locations considered especially unsafe: in adult beds and on couches and chairs.
- Twenty percent (15) of infants who died of SIDS were known to be sharing a sleep surface with an adult at the time of death.
- Twelve percent (nine) of the infants who died of SIDS were born with low (less than 2,500 grams) or very low (less than 1,500 grams) birthweight. Twelve percent (nine) of the infants were born before 37 weeks gestation. Seven infants were both low or very low birthweight and born before 37 weeks.
- Thirty-seven percent (27) of the children who died of SIDS were exposed to cigarette smoke either in utero or after birth.



Birth History Factors for SIDS Deaths (N=74)		
	#	%
Multiple Birth	6	8
Very Low Birthweight (<1,500 g)	2	3
Low Birthweight (1,500-2,499 g)	7	10
Normal Birthweight (2,500-3,999 g)	35	47
Above Normal Birthweight (>3,999 g)	2	3
< 37 Weeks Gestation	9	12
37-42 Weeks Gestation	38	51
Mother Smoked during Pregnancy	21	28
Autopsy Completed	71	96

