

## Local CFR Boards

In July 2000, Gov. Bob Taft signed Substitute House Bill 448 (HB 448), mandating CFR boards in each of Ohio's counties (or regions) to review the deaths of children younger than 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 of aggregate data, trends and patterns found in child deaths.



In accordance with sections 307.621 and 307.622 of the Ohio Revised Code, each county in Ohio shall establish a CFR board or join a regional CFR board for the purpose of

reviewing the deaths of children residing in that county. While membership varies among boards, the minimum required membership includes:

- ◆ county coroner or designee;
- ◆ chief of police or sheriff or designee;
- ◆ executive director of a public children services agency or designee;
- ◆ public health official or designee;
- ◆ executive director of a board of alcohol, drug addiction, and mental health services or designee; and
- ◆ pediatrician or family practice physician.

Additional members are recommended which include, but are not limited to; the county prosecutor, fire /Emergency Medical Service, school representative and child advocates.

The CFR statute allows CFR boards to review child deaths retrospectively (deaths that occurred one year in the past) or concurrently (deaths that occurred in the current year). It is because of this flexibility that the number of deaths reviewed

## Local CFR Boards

does not match the death data from Vital Statistics. There are advantages and disadvantages of both types of review. A benefit of retrospective reviews is the ability to look at the child deaths grouped by manner and cause of death. For example, vehicular deaths can be reviewed at the same time. This allows for trends and patterns to be identified that otherwise might have been missed. A benefit of concurrent reviews is to reduce the inability to recall circumstances regarding deaths.

CFR boards meet at least once a year to review child deaths in their county. Prior to the review meeting, the information pertinent to the death is collected. While the process for

the review meeting varies among CFR boards, the basic review process includes:

- ◆ the presentation of relevant information;
- ◆ the identification of contributing factors; and
- ◆ the development of data-driven recommendations.

Data are then recorded and entered into a database for use in data analysis as well as compliance with reporting requirements. Each CFR board provides data in aggregate form to the state. The Ohio Department of Health is responsible for providing technical assistance and annual training to the CFR boards.

# LOCAL CFR BOARDS



## Data Reporting

Seventy-five CFR boards submitted annual reports describing their CFR board activity and death reviews conducted in 2002 through the required data count tool. An additional six counties submitted partial reports through the electronic Web-based CFR database but did not send the required complete report.

While 1,407 child death reviews were conducted by CFR boards in 2002 only 1,256 were entered into the CFR database and were included in the

analysis. The findings from those reviews are summarized in this report. However, there are many limitations to these findings. The limitation of the current CFR database system and the pre-packaged reports does not provide the means to determine the preventability of deaths. Due to lack of confidentiality protection at the state level, access to relevant data necessary for an in-depth evaluation of the contributing factors associated with child deaths in Ohio is not possible.





## Data Reporting

By April 1 of each year, 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;
- ◆ Sex;
- ◆ Race;
- ◆ Geographic location of death; and
- ◆ Year of death.

In addition, the report specifies the number of child deaths that were not reviewed in the reporting period and recommendations for actions that might prevent other deaths.

In order to track these data, CFR boards are required to have a data collection system for child death reviews. ODH contracted with a software company to develop an Ohio-specific, web-based information system for CFR. Use of the data system is voluntary as some CFR boards have their own system. Local CFR boards that use the web-based system have access to individual level data; only aggregate data are available through the system at the state level.

There were a total of 1,407 deaths reviewed in 2003 as reported through the mandated CFR data count tool. Of this number, 1,256 reviews were entered into the CFR database and included in the analysis, based primarily on the

DATA REPORTING





## Data Reporting

# DATA REPORTING

completeness of information on each death review. This represents 90 percent of all reviews conducted. Six counties sent in their data count tool but reported no reviews. Thirteen counties did not send in their data count tool. However, seven of these counties submitted their data electronically through the CFR database. Seven counties did not report any data to ODH, both through the data count tool and the CFR database.

Seventy-five CFR boards submitted annual reports in April 2003 compared to 82 in April 2002. CFR boards conducted 1,407 reviews of children who died in 1999, 2000, 2001 and 2002. The majority of reviews completed

were for child deaths that occurred in 2001 and 2002. One hundred seventy-six (176) deaths were reported as not reviewed or not completed. Reasons for not completing reviews include a pending investigation, and carrying the review over to a future meeting due to missing information. CFR boards developed 215 recommendations based on their reviews.

The following charts compare the 2000 population of persons under age 18, 2001 vital statistics death data of persons under 18 and child fatality reviews conducted in 2002. Infants represent 5 percent of the Ohio population less than 18 years of age, yet account for 60 percent of deaths in this age



## Data Reporting

group. Fourteen percent of the Ohio population less than 18 years of age is black; however 30 percent of deaths in this age group occur to black children. The frequency of deaths to boys less than 18 years of age is slightly higher than their representation in the population (59 percent vs. 51 percent).

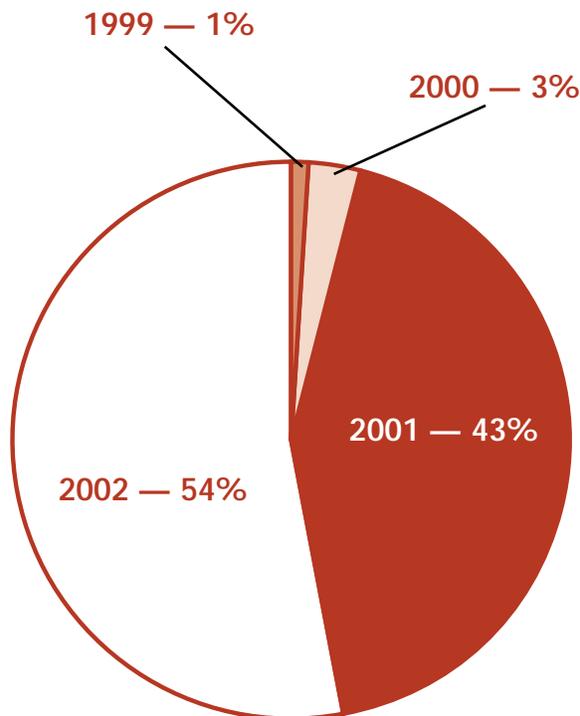
Overall, CFR reviews conducted in 2002 are representative by

age, race and gender of child deaths that occurred in Ohio (as compared to vital statistics data). There was a slightly higher proportion of CFR reviews conducted on suicide deaths (3.0 percent vs. 1.7 percent) and lower proportion of deaths due to an undetermined cause (3.0 percent vs. 9.1 percent). All other manners of death were proportionately comparable between vital statistics and CFR.



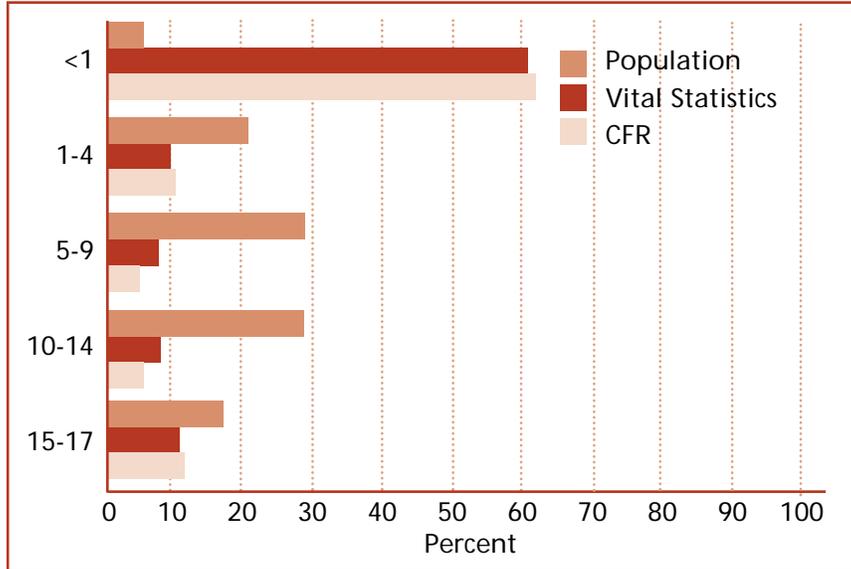
DATA REPORTING

### 2002 CFR Reviews by Year of Death

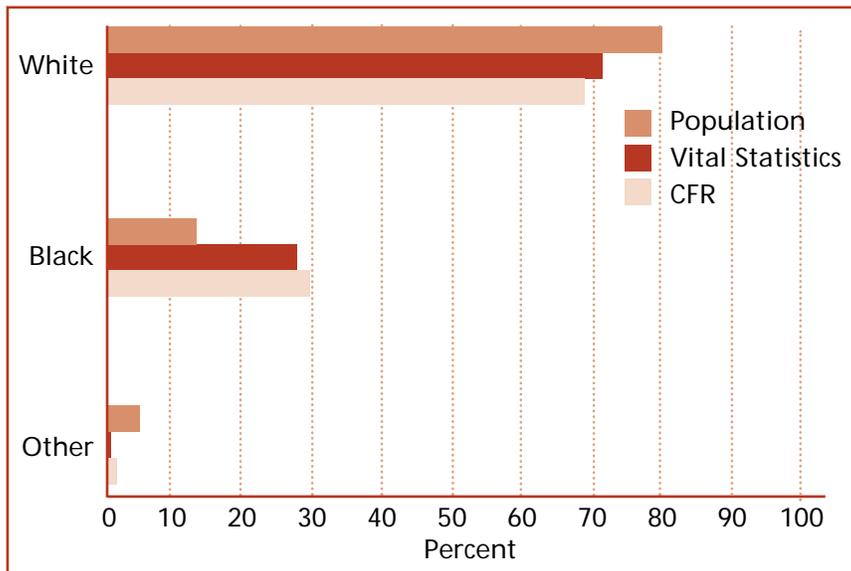


## Data Reporting

Comparison of 2000 Population and Vital Statistics Death Data with Child Fatality Reviews Conducted in 2002 by Age



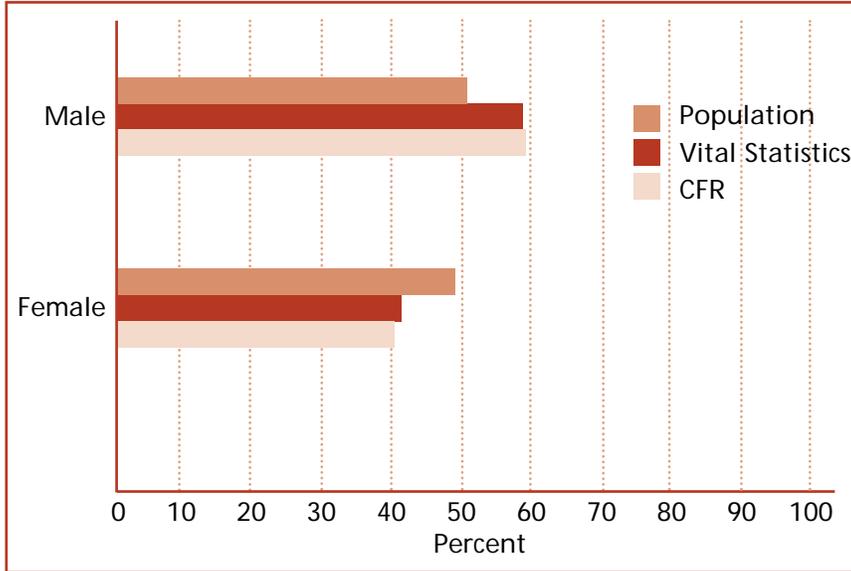
Comparison of 2000 Population and Vital Statistics death data with Child Fatality Reviews Conducted in 2002 by Race



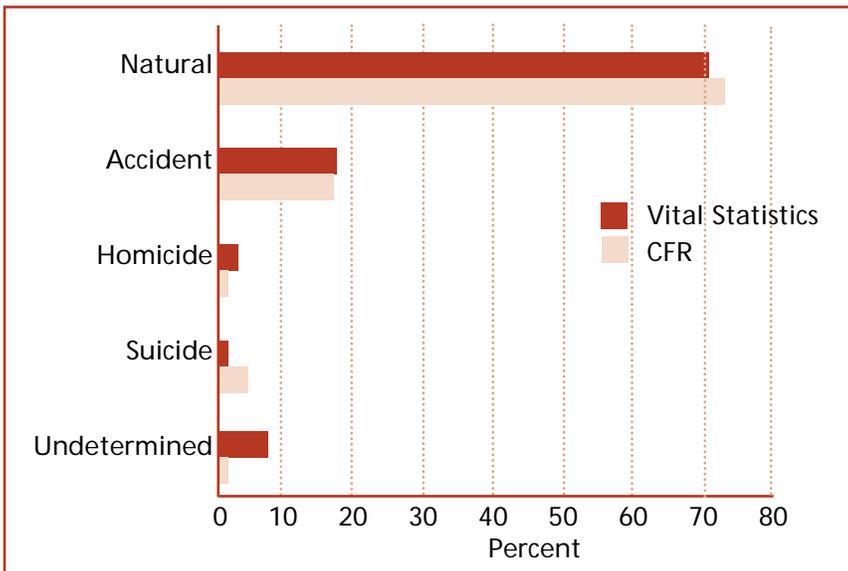
DATA REPORTING

DATA REPORTING

Data Reporting



Comparison of 2000 Population and Vital Statistics death data with Child Fatality Reviews Conducted in 2002 by Gender



Comparison of 2000 Vital Statistics death data with Child Fatality Reviews Conducted in 2002 by Manner of Death



# TRAINING AND TECHNICAL ASSISTANCE

## Training and Technical Assistance

**T**raining for local review boards is organized by the Ohio Department of Health (ODH) in partnership with the Ohio Children's Trust Fund and experienced CFR teams. A team of health planners, program consultants and epidemiologists coordinate this statewide training through funding provided by the Maternal and Child Health Block Grant. The focus of the yearly training is to offer guidance to local CFR boards regarding the child death review process and to support a CFR database system for collecting and analyzing child death data at both the local and state levels. The 2003 Statewide Training will be held on December 8 and 9 at the Marriott North in Columbus, Ohio.



The Child Fatality Review program is implemented by staff from two bureaus in the Division of Family and Community Health Services (DFCHS) at the Ohio Department of Health. The Bureau of Child and Family Health Services (BCFHS)

coordinates the program aspects of CFR which include the Advisory Council, providing technical assistance to CFR boards, and coordinating the yearly trainings. The Bureau of Health Services Information and Operational Support (BHSIOS) staff conduct data collection and data analysis, manage the CFR database and will provide technical assistance to CFR boards on CFR data issues.

A CFR program coordinator (BCFHS) was hired in October 2001 but left the position in April 2003. ODH expects to fill the position by December 2003. The newly hired CFR coordinator will attend county CFR meetings and provided technical assistance on issues such as identification of deaths, CFR process and data collection. Phone technical assistance was also provided to CFR boards regarding the database system and annual reporting requirements. Experienced CFR boards have also been valuable in providing technical assistance to the new CFR boards.

## Training and Technical Assistance

To assist with the identification of deaths, the CFR program staff and Vital Statistics have met to develop a report comparing the registrar district of birth and the registrar district of death for infants ages 0-1. Using this report, child deaths for children ages 0-1 that might have been missed through death certificates, including out-of-state deaths, will be identified.

The CFR program staff and Vital Statistics have also developed a Memorandum of Agreement between the state registrar and CFR boards. This agreement is

signed by the state registrar and each CFR Board and allows CFR boards to access the confidential medical information included on the birth certificate.

The CFR program was added to the ODH web site ([http://www.odh.state.oh.us/ODH\\_Programs/cfr/cfr1.htm](http://www.odh.state.oh.us/ODH_Programs/cfr/cfr1.htm)) to assist in providing information about CFR. The information on the site includes frequently asked questions, CFR law and rules, contact information for CFR boards, case report tool, CFR annual reports and a link to the CFR database.

# TRAINING AND TECHNICAL ASSISTANCE



## Challenges

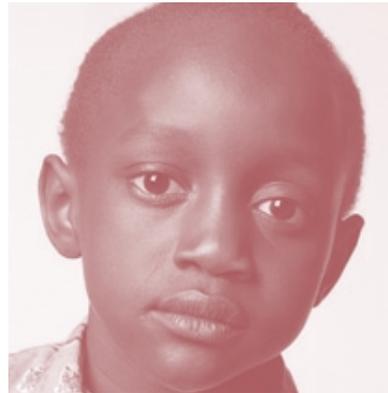
**T**he Child Fatality Review Project has faced several challenges this past year.

### Incomplete Information:

Often CFR boards are unable to obtain the information needed for comprehensive reviews. One of the barriers is the lack of awareness of CFR by agencies whose records might be requested by the local CFR board. Another barrier is agencies that have an in-depth process for record requests. Cumbersome processes for obtaining information make it difficult for CFR boards to complete reviews. CFR Boards often have difficulty in interpreting the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and other confidentiality requirements and often go through cumbersome steps to obtain releases of information from parents and guardians.

### Board Membership:

CFR boards occasionally have difficulty obtaining full membership – both mandated and recommended members. Due to the nature of their area of expertise, several required members have limited time to devote to ongoing meetings. In addition, rural areas face the challenge of limited experts in their area. Health departments that have changes in staffing and health commissioner position vacancies experience great difficulties in managing their local CFR boards.



## Challenges

### CFR Database

Many deficiencies with the CFR database were found this past year, some of which were able to be corrected upon identification. An example is the prepackaged reports. The current prepackaged reports do not capture a portion of the information for contributing factors related to several causes of death. Due to this limitation, some data are not available for this report. A committee continues to meet to resolve this issue.

### Lack of Funding

CFR boards and the state CFR program do not receive a specific state appropriation. A few CFR Boards have secured funding through their county commissioners; however, the majority of them are not funded. To assure recommendations are implemented, many CFR Boards would require funding. Many agencies are experiencing budget constraints, making it difficult for them to take on a new program or continue current programs that are effective.

# CHALLENGES



# CHALLENGES

## Challenges

### Determining Preventability

In the Ohio Administrative Code section 3701-67-01, preventability is defined as the degree to which an individual or community could have reasonably done something that would have changed the circumstances that led to the child's death. CFR boards have a difficult time in determining whether a death was preventable, somewhat preventable or not preventable. Because contributing factors vary within specific causes of death, it is not possible to state that all deaths within a particular cause of death are unequivocally preventable or are not preventable. This leads to inconsistent preventability reporting among CFR boards. For example, one board may agree that all suicides are preventable, whereas another board may feel they are only preventable in some circumstances.

### Reporting Compliance:

A challenge for the state CFR program has been assuring that the CFR project provides an overall accurate picture of child deaths in Ohio. This can be done through effective reviews, reliable data collection, access to individual level data and the participation of all counties.







# CAUSES OF DEATH

## Causes of Death



- Natural Death
- Vehicular
- Sudden Infant Death Syndrome
- Suffocation and Strangulation
- Firearms and Weapons
- Drowning and Submersion
- Fire and Burns
- Child Abuse and Neglect
- Other Causes of Death





## Natural Death

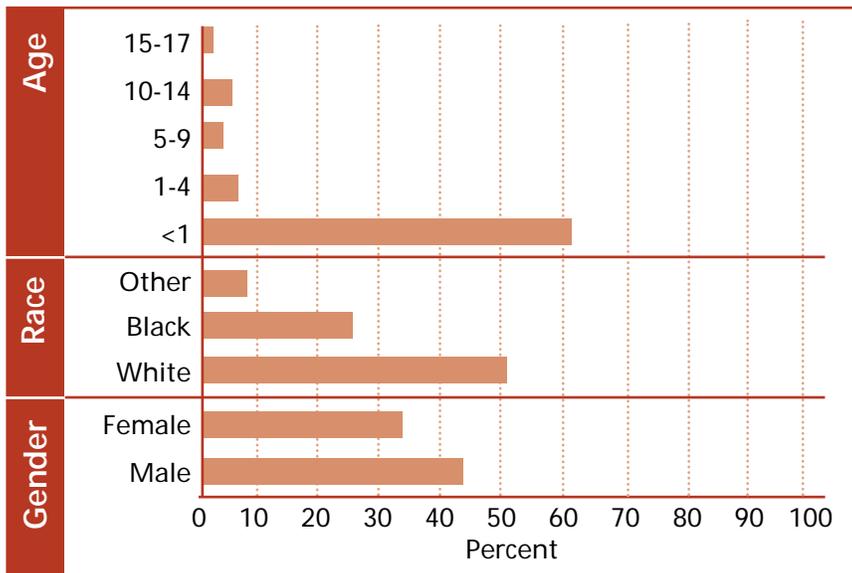
### Background

Natural deaths are generally regarded as inevitable deaths. 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.

### CFR Findings

There were 794 child death reviews conducted in 2002 on children who died from natural causes. These deaths represent 63 percent of all reviews conducted. Seventy-six percent of all natural deaths occurred to infants less than one year old. There was a disproportionate percentage of deaths from natural causes among black children and boys.

Natural deaths by Age, Race and Gender



Source: Child Death Reviews Conducted in 2002

## Vehicular

### 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. For children younger than 4, proper use of child restraint devices plays a crucial role in preventing motor vehicle fatalities. 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 U.S.

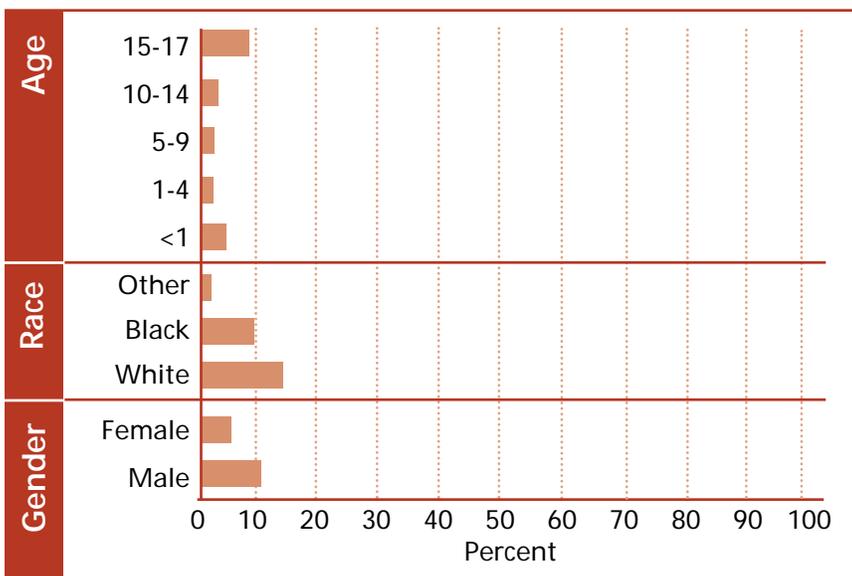
### CFR Findings

There were 154 child death reviews conducted in 2002 on children who died in a motor vehicle crash. These deaths represent 12 percent of all deaths reviewed. More than half of the deaths occurred to children 15 - 17 years of age. There was a disproportionate percentage of deaths among boys. Recklessness was cited in 22 percent of the deaths; driver error was cited in 20 percent; lack of seat belt use and speeding were cited in 19 percent of the deaths. In 61 percent of the deaths, the driver was younger than 18 years of age; 8 percent of the drivers were younger than 16 years of age. Seventy-nine percent (231) of the vehicles involved in these crashes were cars/vans and 21 percent (62) were other types of vehicles, including trucks/campers (27) and sport utility vehicles (15).



## Vehicular

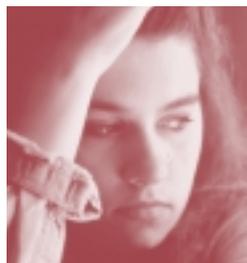
### Vehicular deaths by Age, Race and Gender



Source: Child Death Reviews Conducted in 2002

Risk Factors	Age of driver				Total
	<16	16-18	>18	Unknown	
Recklessness	5	33	12	14	64
Driver Error	4	28	17	10	59
Restraint Needed Not Used	4	35	10	8	57
Speeding	4	34	9	9	56
Alcohol and/or Drugs	1	11	8	10	30
Poor Road or Weather Conditions	4	15	6	2	27
<b>Total</b>	<b>22</b>	<b>156</b>	<b>62</b>	<b>63</b>	<b>293</b>

Note: More than one factor could be reported for each death



VEHICULAR

# SIDS

## Sudden Infant Death Syndrome



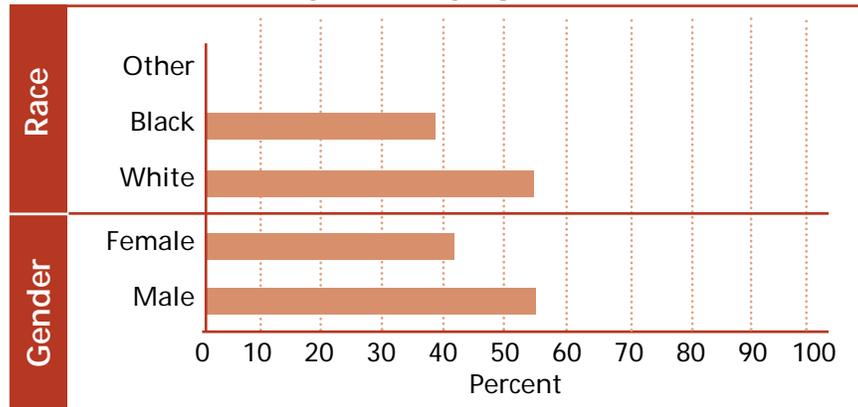
### Background

When a healthy infant younger than one year of age suddenly dies with no medical explanation, the cause of death may be identified as Sudden Infant Death Syndrome (SIDS). Nationally, SIDS is the leading cause of death for infants between 1 month and 1 year of age. The cause of SIDS continues to elude the medical community. However, the time spent on medical investigation to understand this medical mystery has paved the way for a better understanding of factors that contribute to SIDS. Research shows that placing infants to sleep on their back significantly reduces their risk of dying from SIDS. Other protective factors may include breastfeeding and living in a smoke-free home.

### CFR Findings

There were 94 child death reviews conducted in 2002 on children who died from SIDS. These deaths represent 7 percent of all reviews conducted. There was a disproportionate percentage of deaths among boys and black infants.

### Sudden Infant Death Syndrome by Age, Race and Gender



Source: Child Death Reviews Conducted in 2002

### Factors Associated with SIDS

Factors Associated with SIDS	# of Times Factor Reported
Infant Sleeping Alone	47
Infant Sleeping in Crib	25
Sleeping on Back at Time of Death	15
No Cigarette Exposure	8
Infant Breastfed	5
Total	94

Note: More than one factor could be reported for each death

## 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. 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.

### CFR Findings

There were 51 child death reviews conducted in 2002 on children who died from suffocation and strangulation. These deaths represent 4 percent of all deaths reviewed. Over half of the deaths occurred to children less than 1 year of age. There was a disproportionate percentage of deaths among black children. Strangulation by an object was cited in 27 percent of the deaths and another person lying on/rolling on the child was cited in 22 percent of the deaths.

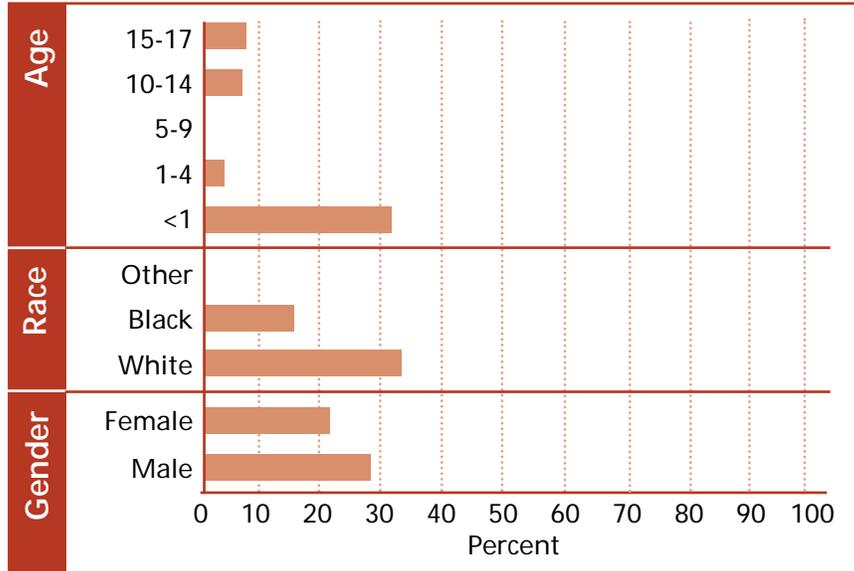
# SUFFOCATION AND STRANGULATION



# SUFFOCATION AND STRANGULATION

## Suffocation and Strangulation

Suffocation and Strangulation deaths by Age, Race and Gender



Source: Child Death Reviews Conducted in 2002

### Suffocation and Strangulation by Circumstances of Event

Circumstances of Event	# of Times Factor Reported
Child Strangled by Object	14
Child Rolling on or Covered by Object	12
Other Person Lying on/Rolling on Child	11
Wedging	8
Unknown	4
Child Choking on Object	2
<b>Total</b>	<b>51</b>

Note: More than one factor could be reported for each death



## Firearms and Weapons

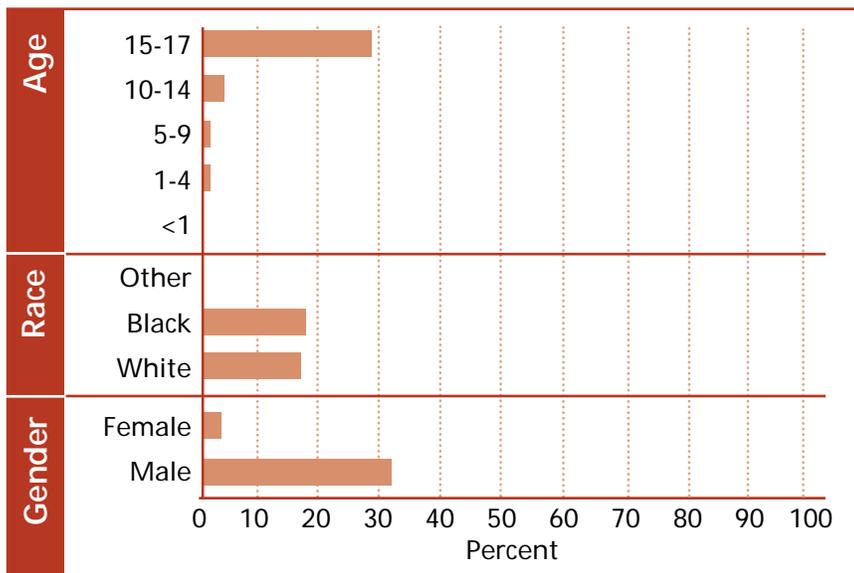
### Background

Firearm deaths can be either intentional or unintentional. Unintentional deaths occur when children play with guns. Intentional deaths include homicides and suicides. Nationally, three out of five deaths attributable to homicide and suicide are caused by firearms. There are more than 200 million privately owned guns in the United States. Approximately 40 percent of U.S. households have some type of firearm and 25 percent have handguns. Nearly 3.3 million children in the United States live in homes where guns are available, loaded and unlocked.

### CFR Findings

There were 35 child death reviews conducted in 2002 on children who died from firearms. This represents 3% of all deaths reviewed. Eighty-two percent were children 15 - 17 years of age. There was a disproportionate percentage of deaths among boys and black children.

Firearm and Weapon deaths by Age, Race and Gender



Source: Child Death Reviews Conducted in 2002

FIREARMS AND WEAPONS



# DROWNING AND SUBMERSION

## Drowning and Submersion



### Background

Drowning represents the second-leading cause of injury-related death among children aged 1 through 14 years in the United States. It is also the leading cause of accidental death to children between the ages of 1 - 4. The majority of all drowning fatalities for children ages 1 - 4 occur in pools, often at the child's home or home of a neighbor. Infants younger than 1 year old and toddlers can drown in buckets, toilets, hot tubs and wading pools.

### CFR Findings

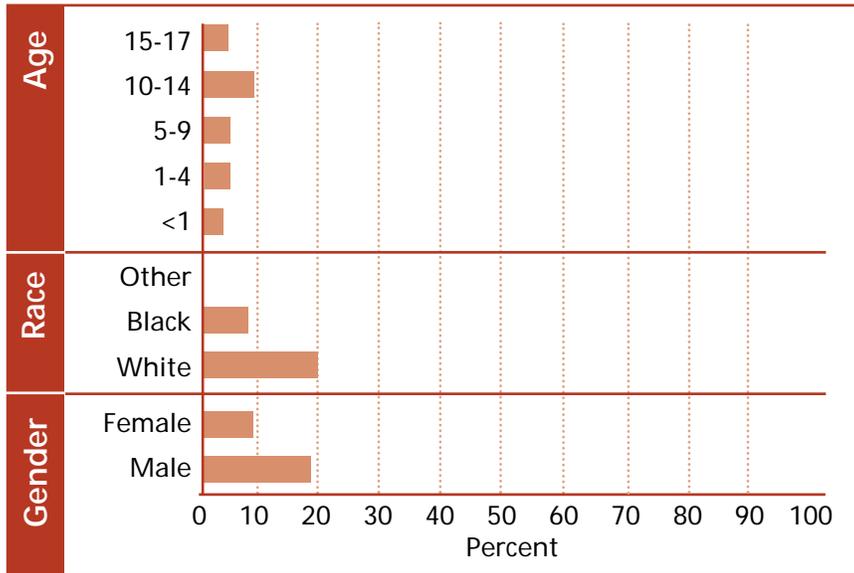
There were 28 child death reviews conducted in 2002 on children who died from drowning. The deaths represent 2 percent of all deaths reviewed. There was a disproportionate percentage of deaths among boys and black children. Of the deaths for which place of drowning was reported, 39 percent occurred in lakes, 25 percent in pools, 21 percent in bathtubs and 14 percent in other (including buckets, wells, cisterns, and drainage ditch).

### Drowning and Submersion by Place of Drowning

Place of Drowning	# of Deaths	% of Deaths
Lake	11	39
Swimming Pool	7	25
In-Ground	5	
Above-Ground	2	
Bathtub	6	21
Other (includes well, cistern, bucket, drainage ditch)	4	14
Total	28	100%

## Drowning and Submersion

Drowning deaths by Age, Race and Gender



Source: Child Death Reviews Conducted in 2002

# DROWNING AND SUBMERSION



## Fire and Burn



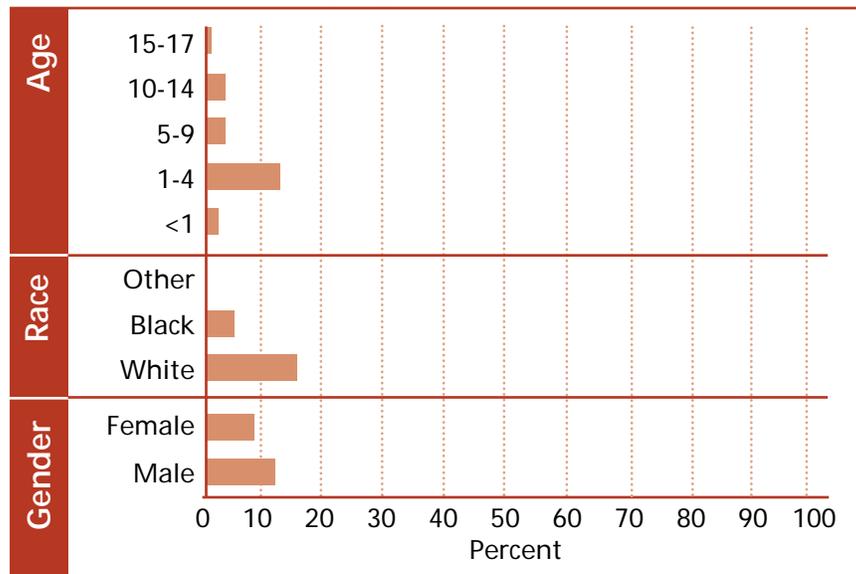
### Background

Fatalities attributable to fires represent the third leading cause of death among children 1–14 years of age in the United States. A disproportionate percentage (73 percent) of these fatal fires occur in residential homes. The factor most frequently responsible for fatal house fires is cigarettes. The rate of fire fatalities is significantly higher among children and the elderly because of their slow response in escaping a burning house.

### CFR Findings

There were 22 child death reviews conducted in 2002 on children who died in a fire. This represents 2 percent of all deaths reviewed. Slightly over half of the deaths occurred among children 1–4 years of age. There was a disproportionate percentage of deaths among black children.

### Fire and Burn deaths by Age, Race and Gender



Source: Child Death Reviews Conducted in 2002

### Factors Associated with Fire and Burn Death

Factors Related to Fire and Burn Deaths	# of Times Factor Reported
Smoke Alarm Present	9
Inadequate Supervision	5
Smoke Alarm with Good Battery	3
Alcohol and/or Drugs	2
Smoke Alarm Functioned Properly	2
Child Knew of a Fire Escape Plan	1
Total	22

## Child Abuse and Neglect

### Background

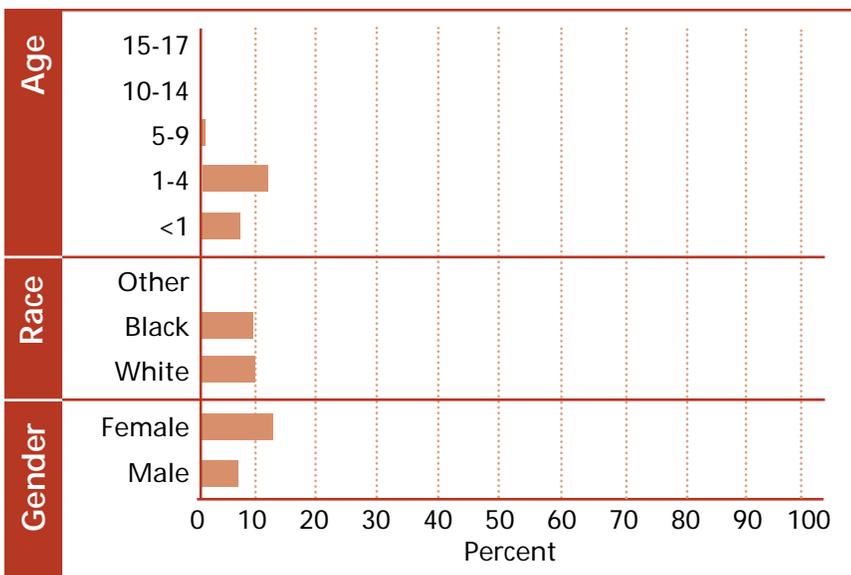
Statistics show that the incidence of death related to child abuse has remained constant. However, researchers believe that the number of child deaths caused by abuse and neglect is significantly higher than the reported cases. Many child abuse and neglect deaths are reported as other causes of death, particularly accidental or natural deaths. The National Child Abuse and Neglect Data System (NCANDS) reported that 3 million referrals were made to Child Protective Services (CPS) agencies in 2000 regarding the welfare of children. Of these referrals, approximately 62 percent were for possible abuse and neglect of children.

### CFR Findings

There were 20 child death reviews conducted in 2002 on children who died from child abuse and neglect. This represents 2 percent of all deaths reviewed. Ninety-five percent of the deaths occurred among children younger than 5 years of age. There was a disproportionate percentage of deaths among girls and black children.

# CHILD ABUSE AND NEGLECT

Child Abuse and Neglect deaths by Age, Race and Gender



Source: Child Death Reviews Conducted in 2002

## Child Abuse and Neglect

### Behavioral or Social Factors Related to Child Abuse and Neglect

Behavioral / Social Risk Factors	# of Times Factor Reported
Prior child protective services involvement	9
Domestic violence	3
Low socioeconomic status	3
Prior history of mental problems, violence, threats of harm	3
Inadequate supervision	3
Alcohol or drugs	3
<b>Total</b>	<b>24</b>

NOTE: More than one factor could be reported for each death.

# CHILD ABUSE AND NEGLECT



## Other Causes of Death

### Falls, Poisoning, Electrocution and Unknown

One percent [n=13] of child death reviews conducted in 2002 were children who died from poisoning (nine deaths); falls (three deaths); or electrocution (one death).

### Unknown Causes of Death

There were 43 reviews conducted in 2002 on children who died from unknown causes. This represents 3 percent of all deaths reviewed.

Thirty-one percent of the reviews reported as unknown occurred among children younger than 1 year; 26 percent were in the 10–17 age group. Unknown cause of death is reported when there is insufficient information to determine a specific cause of death or when unspecified causes of deaths are reported.

# OTHER CAUSES OF DEATH

