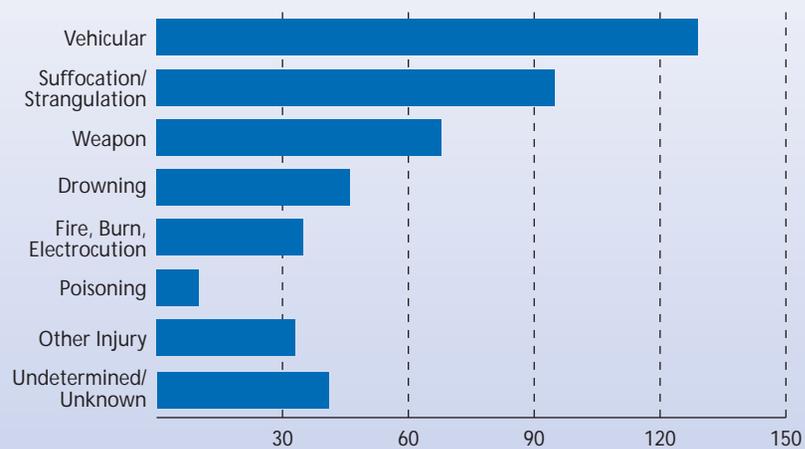


## Deaths from External Causes

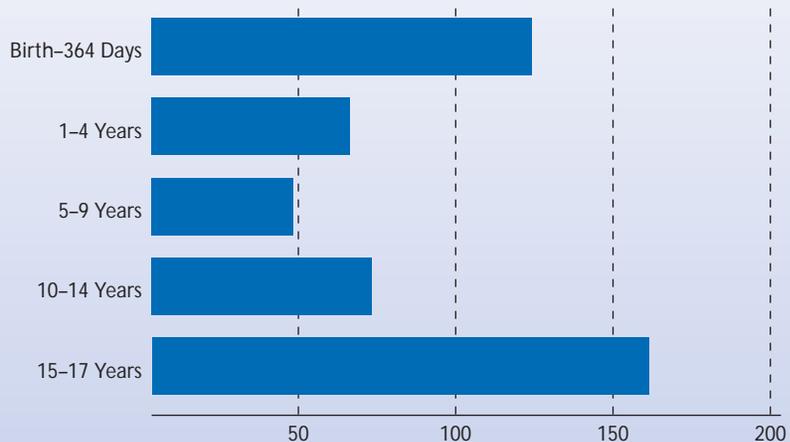
### General Characteristics of Reviews of Deaths from External Causes

- Twenty-six percent (457) of the 1,725 reviews for 2005 deaths were due to external causes.
- Thirty-five percent (158) of the 457 reviews of deaths from external causes were for children ages 15-17 years.
- Thirty-one percent (141) of the 457 reviews for external causes were for black children, which is disproportionate to their representation in the Ohio child population (16 percent).
- Sixty-five percent (296) of the 457 reviews for external causes were for boys, which is disproportionate to their representation in the population (51 percent).
- Vehicular injuries, suffocation/strangulation and weapons injuries were the three leading external causes for the 457 reviews.
  - ▼ Twenty-eight percent (129) were due to vehicular injuries.
  - ▼ Twenty-one percent (95) were due to suffocation.
  - ▼ Fifteen percent (68) were due to weapons injuries.

### Reviews of External Causes by Cause of Death



### Reviews of External Causes by Age



### Reviews of 2005 Deaths: All External Causes of Death (N=457) by Age

	Birth-364 Days		1-4 Years		5-9 Years		10-14 Years		15-17 Years		Total	
	#	%	#	%	#	%	#	%	#	%	#	%
Vehicular	3	2	11	9	18	14	27	21	70	54	129	28
Suffocation/ Strangulation	56	59	6	6	3	3	8	8	22	23	95	21
Weapon	4	6	7	10	2	7	15	21	40	56	68	15
Drowning	5	11	22	48	4	9	5	1	11	22	46	10
Fire, Burn, Electrocutio	2	6	6	17	14	40	9	26	4	11	35	8
Poisoning	0	0	2	20	1	10	2	20	5	50	10	2
Other Injury	13	39	8	24	3	9	4	12	5	15	33	7
Undetermined/Unknown	38	93	1	2	0	0	0	0	2	5	41	9
External Causes Total	121	26	63	14	45	10	70	15	158	35	457	100

Percents may not total 100 due to rounding.

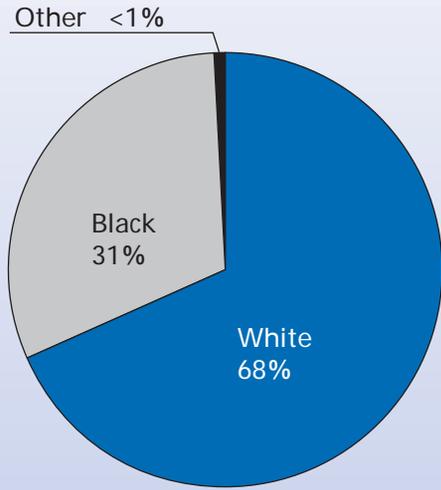
### Reviews of 2005 Deaths: All External Causes of Death (N=457) by Race

	White		Black		Other		Total	
	#	%	#	%	#	%	#	%
Vehicular	110	85	17	13	2	<2	129	28
Suffocation/ Strangulation	71	75	24	25	0	0	95	21
Weapon	34	50	34	50	0	0	68	15
Drowning	32	70	14	30	0	0	46	10
Fire, Burn, Electrocutio	15	43	20	57	0	0	35	8
Poisoning	7	70	3	30	0	0	10	2
Other Injury	28	85	5	15	0	0	33	7
Undetermined/Unknown	16	39	24	59	1	2	41	9
External Causes Total	313	68	141	31	3	<1	457	100

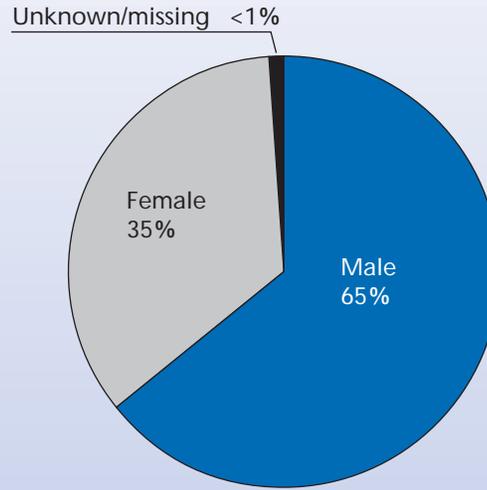
Percents may not total 100 due to rounding.

Cases with multiple races indicated were assigned to the minority race.

### Reviews of External Causes by Race



### Reviews of External Causes by Gender



### Reviews of 2005 Deaths: All External Causes of Death (N=457) by Gender

	Male		Female		Unknown/Missing		Total	
	#	%	#	%	#	%	#	%
Vehicular	76	59	53	41			129	28
Suffocation/ Strangulation	64	67	31	33			95	21
Weapon	54	79	14	21			68	15
Drowning	32	70	14	30			46	10
Fire, Burn, Electrocutation	21	60	13	37	1	3	35	8
Poisoning	7	70	3	30			10	2
Other Injury	20	61	13	39			33	7
Undetermined/Unknown	22	54	19	46			41	9
External Causes Total	296	65	160	35	1	<1	457	100

Percents may not total 100 due to rounding.

## Vehicular Deaths

### Background

Vehicular deaths include deaths of children involving all types of vehicles including cars, trucks, campers, boats, all-terrain vehicles (ATVs), farm vehicles, motorcycles and bicycles as well as pedestrians. Motor vehicle crashes are the leading cause of unintentional injury-related death among children and young adults ages 18 years and younger in the United States, according to the National Center for Health Statistics.<sup>7</sup> 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. The National Highway Traffic Safety Administration (NHTSA) reports that nationally in 2005, 54 percent of children under age 20 killed in motor vehicle crashes were completely unrestrained. According to the NHTSA, when child restraint devices are properly used for infants, the risk of vehicular deaths can be reduced by 71 percent.<sup>8</sup> In 2005, 13 percent of all the drivers involved in fatal crashes were young drivers age 15 to 20 years old. For teenage drivers, inexperience and errors of judgment lead to a higher rate of single-vehicle accidents.<sup>9</sup>

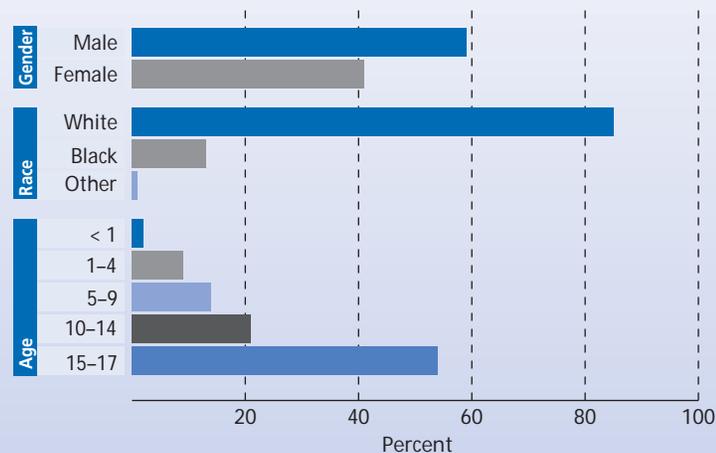
### Vital Statistics

Ohio Vital Statistics reported 141 vehicular deaths to children in 2005. 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.

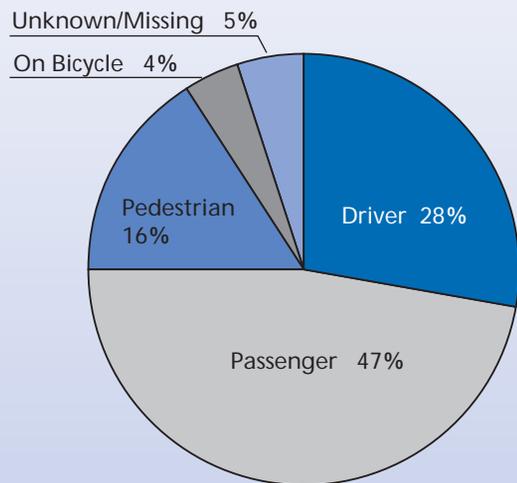
### CFR Findings

- Local CFR boards reviewed 129 deaths to children from vehicular injuries in 2005.
- These represent 7 percent of the total 1,725 deaths reviewed.
- Fifty-four percent (70) of the deaths occurred to 15–17-year-olds.
- There was a greater percentage (59 percent) of boys among vehicular deaths relative to their representation in the general population (51 percent).

### Reviews of Vehicular Deaths by Age, Race and Gender



## Reviews of Vehicular Deaths by Position of Child



- Sixteen percent (20) of the children killed were pedestrians and five were on bicycles.
- Nearly half (47 percent) of the black children killed in vehicular crashes were pedestrians or on bicycles.
- Fifty percent (64) of the children killed in vehicular crashes were in cars. Other types of vehicles involved include vans, sport utility vehicles (SUVs), trucks, motorcycles, ATVs, snowmobiles, bicycles and others.
- Twenty-eight percent (36) of the vehicular deaths occurred to children who were driving the vehicle involved.
- Of the 36 cases where the child killed was the driver, 31 were determined to be responsible for the incident, and one of those was impaired by drugs or alcohol.
- Of the 61 cases where the child killed was a passenger in the vehicle, the driver of the vehicle was 18 years old or younger in 56 percent of the reviews.

## Risk Factors Most Frequently Cited in Vehicular Deaths

Risk Factors	# of Cases	% of Vehicular Deaths
Speeding over the Limit	35	27
Recklessness	31	24
Driver Inexperience	28	22
Unsafe Speed for Conditions	19	15
Drug/Alcohol Use	11	9
Other Driver's Error	7	5

More than one factor may be identified for each case. The total of percents exceeds 100. Thirteen other risk factors were cited at least once.

- Speeding was the most frequently cited risk factor involved in vehicular deaths. Twenty-seven percent (35) of cases involved speeding over the limit, and an additional 15 percent (19) involved unsafe speed for the conditions.
- Recklessness was cited in 24 percent (31) of the deaths.
- Drug/alcohol use was noted in 9 percent (11) of the deaths.

## Proper Use of Restraints for 83 Cases of Deaths to Children in Cars, Trucks, Vans and SUVs by Age

	Total Deaths	Restraints in Proper Use	%
Birth-1 Year	3	0	0
1-4 Years	3	2	67
5-9 Years	10	3	30
10-14 Years	16	5	31
15-17 Years	51	12	24
Total	83	22	27

- Sixty-four percent (83) of the vehicular deaths occurred to children as drivers or as passengers in cars, trucks, vans and SUVs, where by law, children must use seatbelts and/or safety seats. Only 27 percent (22) of the 83 were properly restrained at the time of the incident.

## Suffocation and Strangulation

### Background

Deaths in this category include deaths from suffocation, strangulation and choking, as well as confinement in air-tight places. The National Center for Health Statistics reports more than 1,500 children die of suffocation and strangulation each year in the United States. The largest proportion of suffocations occurs to infants and toddlers, often while sleeping in unsafe environments.<sup>10</sup> Without complete autopsies and death scene investigations, it is difficult if not impossible to distinguish an unintentional suffocation from SIDS or homicide. Older children are at risk for suffocation and strangulation due to substance abuse and suicide.

### Vital Statistics

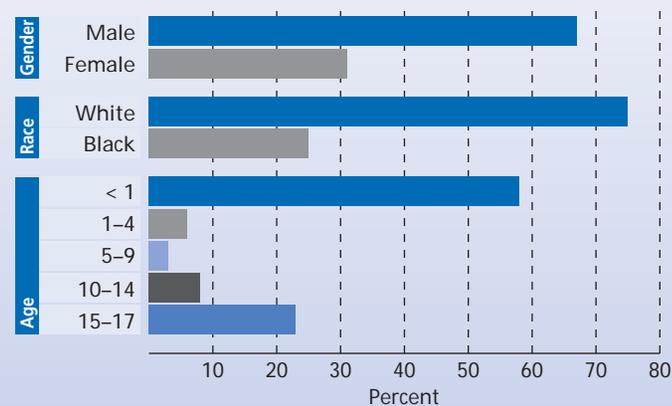
Ohio Vital Statistics reported 106 deaths from suffocation and strangulation to children in 2005. For this report, ICD-10 codes used for classification of Vital Statistics data were selected to most closely correspond with the causes of death indicated on the CFR Case Report Tool. Therefore, the ICD-10 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 child fatality review (CFR) boards reviewed 95 deaths to children from suffocation and strangulation in 2005. These represent 6 percent of all 1,725 deaths reviewed.
- A greater percentage of suffocation and strangulation deaths occurred among black children (25 percent) relative to their representation in the general population (16 percent).

- Fifty-nine percent of the deaths (56) occurred to children less than 1 year of age while 32 percent (30) were to children 10–17 years old.
- In 54 percent (51) of the suffocation and strangulation deaths reviewed, the child was suffocated in bed.
- One-quarter (25) of the suffocation and strangulation deaths were suicides.

### Reviews of Suffocation and Strangulation Deaths by Age, Race and Gender



### Action Causing Suffocation and Strangulation

Circumstances of Events	#	%
Suffocation or Overlay* in Bed	51	54
Strangulation by Object	25	26
Choking	2	2
Other Actions	16	17
Unknown/Missing	1	1
Total	95	100

\* Overlay is a death that occurs when another person's body interferes with victim's ability to breathe.

## Weapons

### Background

The Ohio Child Fatality Review (CFR) data system includes a broad definition for weapons deaths. The definition includes deaths that result from the use of firearms, knives and other instruments as well as the use of body parts as weapons. As a result, the weapons category includes many deaths from beatings, child abuse and other assaults.

According to the National Center for Health Statistics, 1,385 children under 18 years old were killed by firearms in 2004 in the United States. Fewer than 8 percent were considered unintentional.<sup>11</sup> The U.S. Department of Justice estimates there are more than 200 million privately owned guns in the United States and approximately 40 percent of U.S. households have some type of firearm. Twenty-five percent have handguns. Nearly 3.3 million children in the United States live in homes where guns are available, loaded and unlocked.<sup>12</sup>

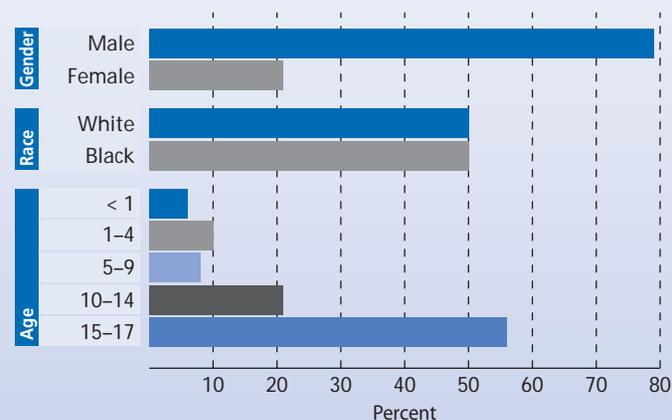
### Vital Statistics

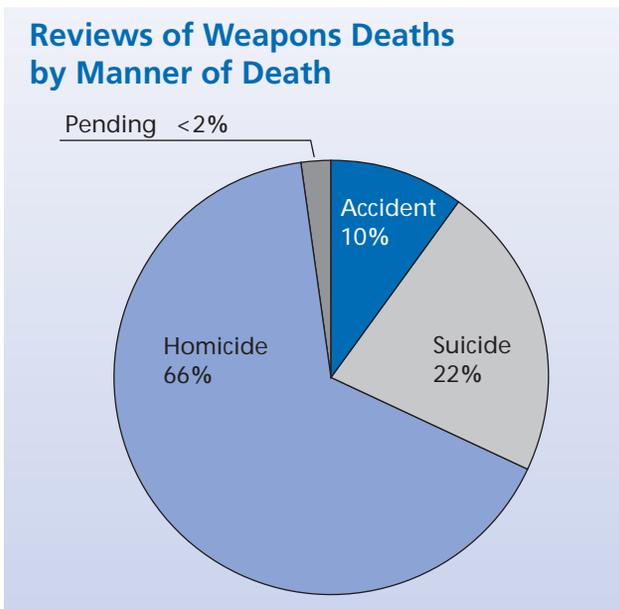
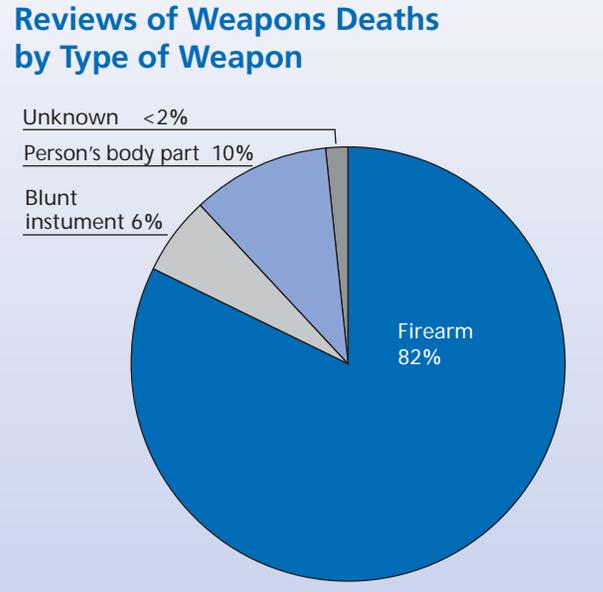
Ohio Vital Statistics reported 73 deaths to children from weapons in 2005. For this report, ICD-10 codes used for classification of Vital Statistics data were selected to most closely correspond with the causes of death indicated on the CFR Case Report Tool. Therefore, the ICD-10 codes used for this 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 68 deaths to children from weapons in 2005. These represent 4 percent of all 1,725 deaths reviewed.
- Fifty-six percent (38) were children 15-17 years of age.
- Weapons deaths were disproportionately higher among boys (79 percent) and among black children (50 percent) relative to their representation in the general population (51 percent for boys and 16 percent for black children).
- Firearms (shotguns, rifles and handguns) were involved in 82 percent (56) of the deaths reviewed.
- Twenty-two percent (15) of the weapons deaths were suicides and 66 percent (45) were homicides.

### Reviews of Weapons Deaths by Age, Race and Gender





## Drowning and Submersion

### Background

Drowning represents the second-leading cause of unintended injury-related death among children ages 1 to 14 years of age in the United States, according to the National Center for Health Statistics.<sup>13</sup> Drowning incidents occur suddenly and unexpectedly, often during momentary lapses in adult supervision. In fact, a study by Safe Kids indicated that nearly 90 percent of child drowning deaths occurred while the child was being supervised.<sup>14</sup>

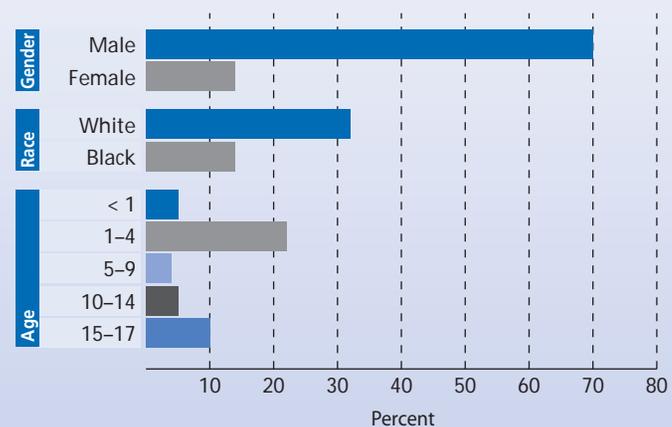
### Vital Statistics

Ohio Vital Statistics reported 43 deaths from drowning and submersion to children in 2005. 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.

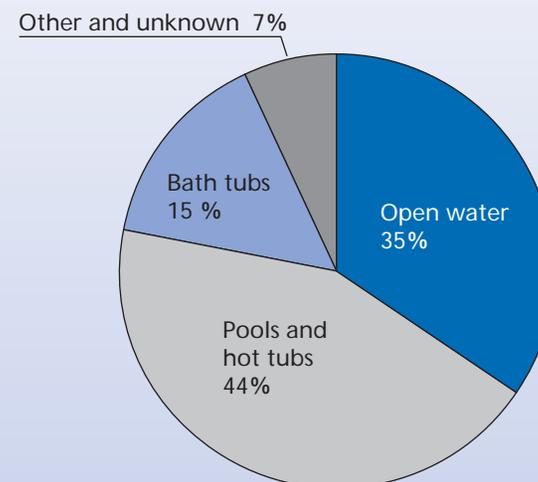
### CFR Findings

- Local child fatality review boards reviewed 46 deaths to children from drowning and submersion in 2005. These deaths represent less than 3 percent of all 1,725 deaths reviewed.
- More than half (27) of the children were less than 5 years old.
- A greater percentage of drowning and submersion deaths occurred among boys (70 percent) and among black children (30 percent) relative to their representation in the general population (51 percent for boys and 16 percent for black children).
- Thirty-five percent (16) of the drowning deaths occurred in open water such as rivers and ponds, while 44 percent (20) occurred in pools and hot tubs.
- Fifteen percent (7) occurred in bath tubs.

### Reviews of Drowning and Submersion Deaths by Age, Race and Gender



### Reviews of Drowning and Submersion Deaths by Place of Event



## Fire and Burn

### Background

The National Center for Health Statistics reports fires and burns are the third-leading cause of death among children younger than 18 years of age in the United States.<sup>15</sup> Most of these deaths occur in house fires, and the majority of the deaths are due to smoke inhalation rather than burns. According to the National Center for Injury Prevention and Control, cigarette smoking is the leading cause of fatal house fires. Young children and elderly adults are especially at risk of fire and burn deaths because of their slower response and decreased mobility. In fact, children under 5 years old are twice as likely to die in a house fire as the rest of the population.<sup>16</sup>

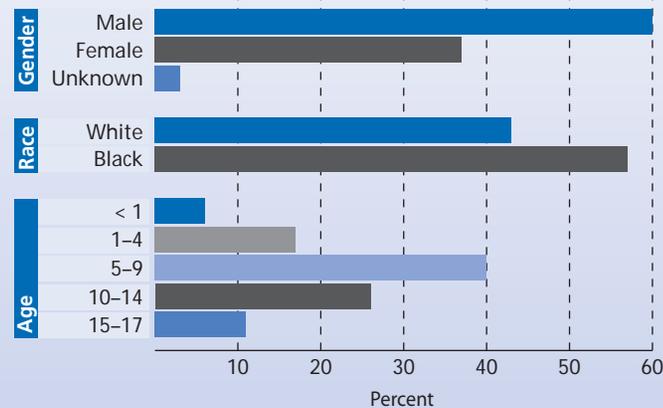
### Vital Statistics

Ohio Vital Statistics reported 14 deaths from fire and burns to children in 2005. 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 child fatality review boards reviewed 35 deaths from fire and burn to children in 2005. These represent 2 percent of all 1,725 deaths reviewed.
- A greater percentage of fire and burn deaths occurred among black children (57 percent) relative to their representation in the general population (16 percent).
- For the 28 deaths due specifically to fires, a smoke detector was known to be present in 50 percent of the deaths reviewed.

### Reviews of Fire and Burn Deaths by Age, Race and Gender



## Poison Deaths

### Background

The poison death rate for children 14 years of age and younger has decreased nearly 50 percent since 1981, according to the National Center for Health Statistics.<sup>17</sup> Safe Kids attributes the decline in childhood poison deaths over the past two decades to a decreased use of aspirin for treating child fevers, reductions in the amount of child analgesics in packages and the use of child-resistant packaging for a variety of household substances and medications. Unfortunately, the poisoning deaths of adolescents have increased in the past five years. The rise is attributed to an increase in the inhalation of common household substances by teens to achieve a high and the intentional ingestion of poison to commit suicide.<sup>18</sup>

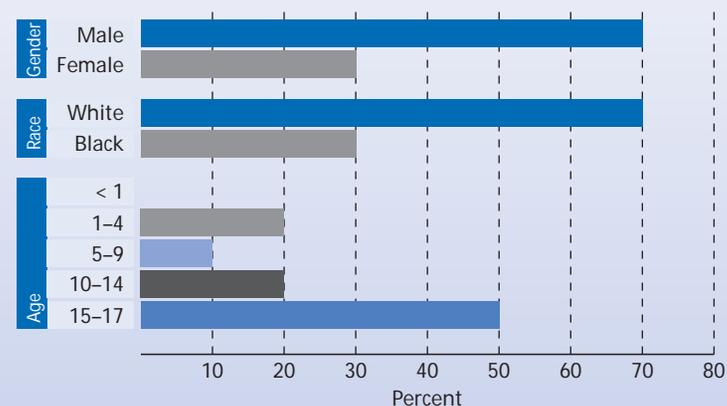
### Vital Statistics

Ohio Vital Statistics data reported 19 deaths from poisoning to children in 2005. 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.

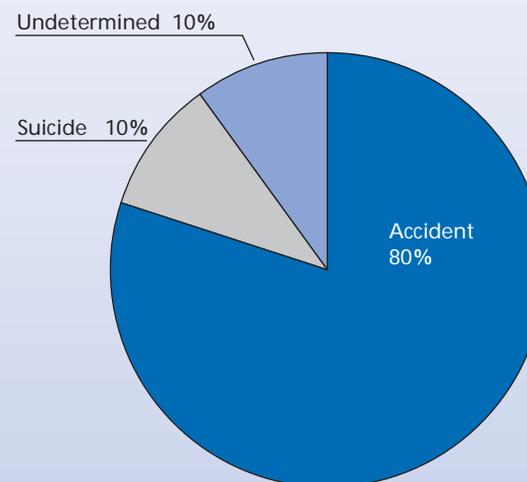
### CFR Findings

- Local child fatality review boards reviewed 10 deaths from poisoning to children in 2005. These represent less than 1 percent of all 1,725 deaths reviewed.
- Seventy percent (seven) of the deaths occurred among children 10 years and older.
- A greater percentage of poison deaths occurred among black children (30 percent) relative to their representation in the general population (16 percent).
- One of the poison deaths was the result of suicide.

### Reviews of Poison Deaths by Age, Race and Gender



### Reviews of Poison Deaths by Manner of Death



## Other Deaths from External Causes

- Deaths from other external causes includes deaths from falls and crushes (11), exposures (two), unknown (five), undetermined (36) and other (20) specified causes.
- Local child fatality review boards reviewed a total of 74 deaths from other external causes to children in 2005. These represent 4 percent of all 1,725 deaths reviewed.
- The proportion of unknown and undetermined external causes of death increased from 0.6 percent of all reviews of 2004 deaths to 2.4 percent of all reviews of 2005 deaths.

### Reviews of Deaths from Other External Causes by Age, Race and Gender

