

I. Introduction: Working to Prevent Childhood Deaths

Oregon Shines II, the strategic plan developed by the Oregon Progress Board and the Governor's Oregon Shines Task Force, has envisioned "a vital, prosperous Oregon that excels in all spheres of life." The updated goals for Oregon are: (1) Quality jobs for all Oregonians; (2) Safe, caring and engaged communities; and (3) Healthy, sustainable surroundings. Oregon's benchmarks in the areas of health, protection, public safety, and poverty provide direction by which communities can increase the quality of the lives of Oregonians.

Oregon's Child Fatality Review (CFR) system provides a method for applying a systems improvement and development approach to the problems identified when the events surrounding a child's death are reviewed. When a child dies, community responses should include investigation into the circumstances surrounding the event, bereavement support, protection of remaining children deemed to be endangered, prosecution of crimes, and implementation of measures to prevent future deaths.

This document, produced by the State Technical Assistance Team (STAT), is the first official report back to local and state teams on the proceedings of the statewide CFR process. It describes the factors that play a role in child fatality and provides recommendations on prevention from state and local teams. The intent is to provide a picture of childhood fatality to assist communities and policymakers in identifying problems and then in developing and targeting prevention programs.

Oregon's Child Fatality Review System

In 1989, the Oregon Legislature enacted a law requiring district attorneys in each county to establish multidisciplinary teams for the investigation of child abuse. (ORS 418.747) In addition a statewide team on child abuse and suicide known as the State Child Fatality Review Team (SCFRT) was convened to conduct case reviews, identify trends, make recommendations, and take actions involving statewide issues (ORS 418.748: Appendix A).

In 1991, ORS 418.747 was modified by adding a provision for establishing a county CFR process as a part of the multidisciplinary teams (Appendix B). Until the Legislature created local interagency CFR teams in 1991 (ORS 418.748, 418.747), there was no forum for coordinating community action after a child died in Oregon. In some cases individual death investigations were carried out by numerous community organizations, but information was not routinely shared with the other agencies or organizations working with families and children. Sometimes confidentiality policies compounded by agency downsizing caused a communication breakdown between agencies and organizations which investigated cases or worked with the family before the death. These factors contributed to poor coordination, duplication of effort, and an overall diminished quality of investigative findings.

District attorneys have responsibility for convening CFR teams at the county level to review cases. The

purposes of review are threefold: (1) to coordinate various agencies and specialists to review a fatality caused by child abuse or neglect; (2) to identify local and state issues related to preventable deaths; and (3) to promote implementation of recommendations on the local level. According to Oregon Statute 418.747, the local teams are required to review child fatalities where abuse or neglect may have occurred at any time prior to the death or may have been a factor in the death, any category established by the local team, all fatalities in which the deceased was under 18 years of age and the medical examiner performed an autopsy, and any specific cases recommended by the state team. All information and records acquired by the local team are confidential and may only be disclosed as necessary to carry out the purposes of the CFR process.

The final link in the CFR system in Oregon was created by the Legislature in 1995 with the formation of the State Technical Assistance Team (STAT), whose primary duties include: designing, implementing, and maintaining an information management system for child fatalities; providing training assistance and support for identified individuals on local multidisciplinary teams in accurate data collection and input; compiling and analyzing data on child fatalities; using data on child deaths to identify strategies for the prevention of child fatalities and serving as a resource center to promote the use of the strategies at the local level; and, upon request, providing technical assistance and consultation services to local multidisciplinary teams (ORS 418.753:Appendix A). All data obtained by STAT are confidential except statistical information and reports such as this may be provided (ORS 432.030).

The mission of the State Child Fatality Review Team is to prevent childhood deaths by reviewing child fatality cases and identifying trends, educating the public on incidence and prevention, and developing recommendations for public policy initiatives. The purposes of the team are:

- To review child fatality cases where child abuse is suspected, identify trends, make recommendations, and take action involving statewide issues through the provision of data-driven recommendations for legislative and public policy initiatives;
- To educate the public, including the media and legislature, about the incidence, causes, and characteristics of child fatalities, as well as the public's role in preventing these deaths, and to promote community-based prevention education;
- To provide recommendations to local Multidisciplinary Teams for the development of protocols. Recommendations address investigation, training, case selection, and fatality review of all child deaths including, but not limited to, child abuse and youth suicide cases;
- To provide direction and guidance to the State Technical Assistance Team (STAT) on child fatality review, established under ORS 418.753 (Appendix A).

All information and records acquired during the CFR are confidential, but statistical information and reports may be provided as long as the data or report do not identify individual cases (ORS 432.030).

Case Review Process

The review process investigates the social and contextual circumstances surrounding a child's death as a means of identifying prevention strategies. The backbone of an effective review is an analysis of the information from the death scene investigation. Local teams fill out a child fatality data form that documents details about each case they review, then send the form to STAT for entry in the information system.

STAT maintains case files on all reviewable deaths. Cases for review are identified from vital statistics death certificates, state medical examiner reports, clippings from Oregon newspapers, and queries to an SCF/AFS database. This information is augmented with reports from traffic records and investigations by law enforcement agencies and fire departments. STAT reviews all received data forms for completeness and accuracy prior to entering the information into the database.

II. Methodology

Local CFR team protocols define case selection criteria in each county. However, STAT recommended that local teams review all cases involving a medical examiner. ORS 146.090 (Appendix A) stipulates that certain types of death require an investigation by the medical examiner. These include any fatality that results from unlawful use of controlled substance; is apparently accidental, homicidal, or suicidal; is by a disease or agent arising from employment; occurs while the deceased is not under the care of a physician immediately prior; or is related to a disease that might be a public health threat. By including all childhood fatalities reviewed by a medical examiner, the review process provides valuable information for the development of data-driven programs to prevent unintentional injuries and violence-related childhood deaths.

The data presented in this report are the product of cooperation by numerous agencies and individuals. One hundred seventy-eight cases were reviewed at local CFR team meetings. In an additional effort, STAT completed data forms on the 67 child fatality cases that were not reviewed by a local team but were attended by a medical examiner. These forms were completed through the use of existing data sources, including the State Medical Examiners Office, local and state law enforcement agencies, Office of Services to Children and Families, local fire departments, and the Center for Health Statistics. In addition to the agency reports, some data were collected through personal communications with local investigators.

Another task of the review process is to determine if abuse or neglect contributed to the child's death. A follow-up process was developed to help ensure the completeness of this information. The process worked like this: local teams determined at the case review that nine deaths were due to abuse and that neglect was a contributing factor in 19 deaths. In 67 cases, local teams did not review a death or did not make a determination on the abuse/neglect issue. STAT then convened a special review session with State Office of Services to Children and Families (SCF) representatives, concluding that two of the cases were due to abuse and that neglect contributed to death in four cases. Procedurally, the SCFRT reviewed these cases and referred them back to the county teams to review again.

Data were also derived from preliminary death certificate information on children whose death occurred in Oregon. Note, however, that the preliminary nature of this information means that numbers will likely change as details on the circumstances surrounding the deaths is accumulated. Furthermore, these children could be residents of other states and so would not be included in Oregon's annual vital statistics data. The data are presented here to give an overall picture of how children are dying in Oregon and should not be considered final. For information on resident child fatality see the Oregon Vital Statistics Annual Report Volume II.

Appendix F includes data derived from death certificates of Oregon residents for individual counties.

While this information is of interest and value to those counties, it is usually more advisable to use statewide data to guide planning for prevention and policy-making. County-specific data often involve numbers too small for effective analysis, while statewide data will show trends that are valuable to all counties.

Although it is more useful and appropriate to calculate rates for policy and planning strategies, CFR data concern not only Oregon residents but residents of other states who were injured and died in Oregon. A death rate is calculated by dividing the number of resident deaths by the resident population. Since the CFR process includes out of state children who die in Oregon it would be inappropriate to calculate a death rate.

III. Fatalities Occurring in Oregon, 1997

Preliminary death certificate data indicate that 533 children aged 0-17 died in Oregon in 1997. One in 13 of these deaths was intentionally caused by child abuse, homicide, or suicide. One in four was unintentionally caused by neglect, unintentional firearm discharge, motor vehicle crash, fire, drowning, poisoning, suffocation, or fall. In all of these deaths, factors can be identified that put children at risk of dying or sustaining critical injury. These types of death are the reason for, and focus of, the Child Fatality Review (CFR) process. The 1997 CFR data base contains case-specific and situation-specific information surrounding 245 children's deaths that were attended by a medical examiner. These represent 46% of the total childhood fatalities that occurred in Oregon. In those fatalities which involved a medical examiner but were not included in the data base, most often the incident that led to their death occurred in another state.

Age Distribution

More than half of the children who died in Oregon in 1997 were under one year of age. The second highest number of deaths occurred in the 15-17 year old age group. While most of the infant fatalities were due to natural causes, unintentional injuries were the leading cause of death in all other age groups. Table 1 shows the manner of death and the leading causes of death by age group.

Table 1: Preliminary death certificate cause of death for children aged 0-17, occurring in Oregon in 1997, N=533

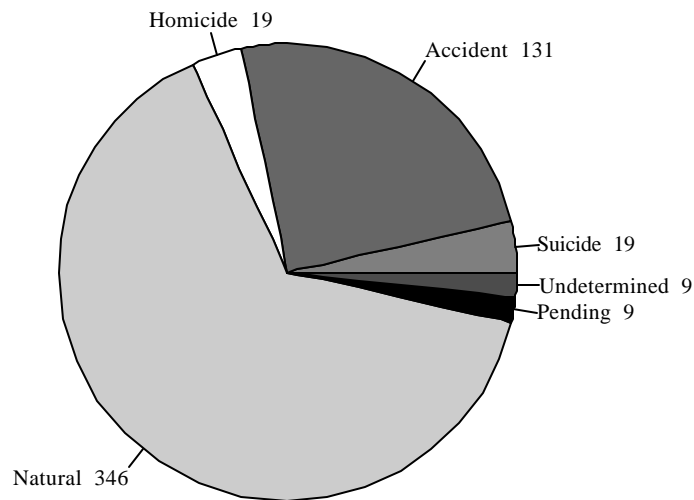
0-1 (N=275)	1-4 (N=65)	5-9 (N=40)	10-14 (N=61)	15-17 (N=92)
<p>Natural: Perinatal Conditions (105) Congenital Anomalies (69) SIDS (35) Infectious Disease (12) Diseases of the Heart (7) Accident: Unintentional Injury (8) Homicide: (2) All Other Causes: (37)</p>	<p>Accident: Unintentional Injury (29) Natural: Congenital Anomalies (5) Malignant Neoplasms (5) Infectious Diseases (3) Diseases of the Heart (3) Homicide: (5) All Other Causes: (15)</p>	<p>Accident: Unintentional Injury (19) Natural: Malignant Neoplasms (5) Infectious Diseases (2) Diseases of the Heart (2) Congenital Anomalies (1) Homicide: (3) All Other Causes: (8)</p>	<p>Accident: Unintentional Injury (23) Suicide: (7) Natural: Malignant Neoplasms (7) Congenital Anomalies (4) Perinatal Conditions (1) Homicide: (6) All Other Causes: (13)</p>	<p>Accident: Unintentional Injury (49) Suicide: (12) Natural: Malignant Neoplasms (5) Diseases of the Heart (3) Congenital Anomalies (2) Perinatal Conditions (1) Homicide: (3) All Other Causes: (17)</p>

Source: Preliminary Death Certificate Data, children who died in Oregon, 1997

The second leading cause of death in Oregonians aged 10-17 is suicide. Trend analysis (chi square, $p < .05$) of 1990-1996 child fatalities shows an increasing trend in only one injurious death category: motor vehicle crash deaths in children aged 5-14. There were no increasing or decreasing trends in any other injurious death category, including suicide, homicide, 0-4 and 15-17 motor vehicle crash, drowning, and fire.

Figures 2 and 3 compare the manner of childhood death as recorded on death certificates in Oregon in 1997 versus the manner of death for fatalities that met the criteria for review. Although the majority of children aged 0-17 die as a result of natural causes such as perinatal conditions and congenital anomalies, the cases that are reviewed are due to unintentional injury, homicide, suicide and other undetermined or unexplained causes.

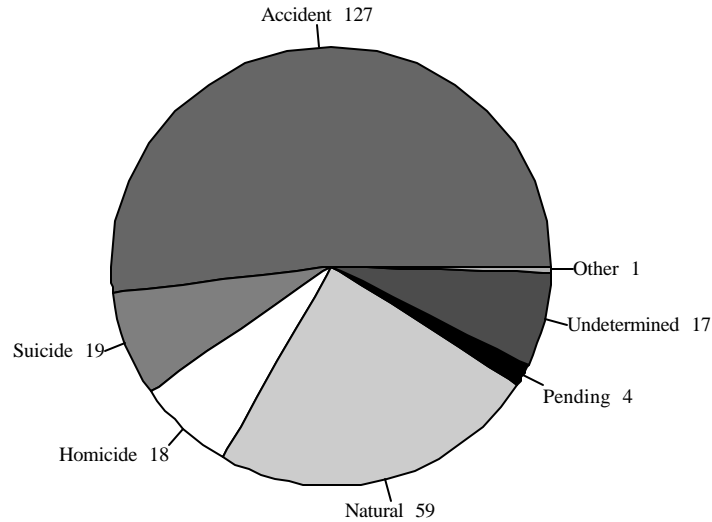
Figure 2. Preliminary death certificate manner of death for children aged 0-17, Oregon, 1997, N=533



Source: Preliminary 1997 death certificate data

These data concern children who died in Oregon in 1997. It does not include Oregon residents who died in other states and does include non-residents who died in Oregon. For statistics on resident child fatality see Oregon Vital Statistic Annual Report Volume II.

Figure 3. Preliminary death certificate manner of death for children whose deaths were reviewed, N=245



Source: 1997 Oregon Child Fatality Review Data

Age distribution of the reviewed cases demonstrates the increasing risk of fatal unintentional injury as childhood progresses. While 52% of the total fatalities were under one year of age, this group accounted for only 29% of the cases reviewed. Correspondingly, while children 15-17 years of age made up 17% of all fatalities, they were 30% of the reviewed cases. Table 2 shows these deaths by percentage of the total by age group.

Table 2: Child deaths occurring in Oregon by review status and age group, 1997

Age Group	Fatalities & % of Total	Fatalities Reviewed* & % Total Reviewed	% of Total Fatalities Reviewed by Age Group
<1	275 (52%)	70 (29%)	25%
1-4	65 (12%)	37 (15%)	57%
5-9	40 (8%)	26 (11%)	65%
10-14	61 (11%)	39 (16%)	64%
15-17	92 (17%)	73 (30%)	79%
Total	533	245	46%

Source: 1997 Oregon Child Fatality Review Data

*Meeting review criteria as described in ORS 418.747

Gender

Males died in greater numbers than females. This difference was more pronounced among the cases reviewed than in the total number of childhood deaths. Overall, 315 males died compared to 218 females. In the 245 fatalities reviewed, 160 males died compared to 85 females. Females died in numbers equal or nearly equal to males from suicide, unexplained infant death, suffocation and strangulation, shaken baby syndrome, and poisoning. Males died in greater numbers from motor vehicle crashes, falls, firearm shootings, drowning, and fires. The child abuse and neglect deaths as a group included equal numbers of females and males.

Race and Ethnicity

Compared to all children who died in Oregon in 1997, white children were underrepresented in the case review data base. Although whites make up 92% of Oregonians 0-17, they were the most underrepresented racial/ethnic group in the mortality data, with 89% of the total child deaths and 82% of the reviewed cases.¹

African Americans were overrepresented, making up 2.4% of the population but 5% of the total deaths that occurred and 8% of the reviewed deaths.¹ This is a consistent finding across all categories of death; in fact, infant mortality in Oregon's African American children is three times that of white children. The fact that African American children are overrepresented in these data sets is not unique, but is a consistent finding both nationally and in Oregon.² Overall, Asian children were slightly underrepresented making up 3.5 % of the population, 2.6% the deaths that occurred, and 3.3% of the reviewed cases. American Indian children represent 1.8% of the Oregon population, 2.3% of deaths that occurred, and 2.1% of the reviewed cases.¹

Oregonians of Hispanic background make up 8.6% of the state's child population. The 60 Hispanic children who died in Oregon in 1997 represented 11% of the child fatalities. Sixteen Hispanic deaths (6.6%) were included in the fatality review cases. It is important to note that this is not a mutually exclusive category; that is, a child who is a member of a cultural Hispanic population is also counted in a racial category.

IV. Case Review Findings

Circumstances surrounding the deaths of the 245 children reviewed in 1997 are presented in aggregate form here and are further examined under the specific category of death. This additional information was accumulated and documented by individuals from various agencies and organizations for the purpose of developing prevention strategies. These data include both residents and non residents who were injured and died in Oregon.

Disability

Twenty of the fatalities reviewed (8.2%) occurred in children who were identified by local teams to be disabled in some way. It is estimated that 2.8% of Oregon children are disabled.³ These numbers indicate that a disproportionate number of disabled children were represented. Two physically disabled children died at home when parents left them alone. These children were unable to call for assistance and died of causes related to their disability that could have been treated if they had access to assistance.

Medical Neglect

Two children died when medical conditions were not treated by a physician. In one case the failure to seek medical treatment was due to religious beliefs; in the other it was a failure on the part of the parents to recognize serious illness. The state CFR team recommended elimination of the affirmative defense to murder for treatment by spiritual or religious means in ORS 163.115.

Supervision

Adequate supervision of children aged 0-9 is the most critical factor in protecting them from death due to drowning, motor vehicle and bicycle or pedestrian event, suffocation and strangulation, poisoning, fall, unintentional firearm shooting, and fire. Lack of supervision in children under age 10 is a component of neglect by caretakers. It is a Class A Misdemeanor in Oregon for any person having custody of a child under 10 to leave that child unattended in or at any place for such a period of time as may likely endanger the health or welfare of such child (see Appendix A, Oregon Revised Statute 163.545). During 1997, 133 children under 10 years of age were reviewed. In 36 cases the children were not adequately supervised at the time of death. They were either left alone, were somewhere nearby not being watched, or had an impaired or inappropriate caretaker. Table 3 shows the frequency of fatality in selected causes of death and the supervision reported at the time of death for children aged 0-9.

In children under one year of age, parental impairment by alcohol and or other drugs was indicated as a contributing factor in two deaths. In children 1-4 years of age, complete lack of parental supervision in one case and parental impairment by alcohol and/or other drugs in two cases were identified as potential factors increasing the risk of fatality. In children 5-9, lack of supervision was identified in four cases and impairment in caretakers was identified in two cases.

Overall, in cases with these selected causes of death, five children died in the presence of parents who were impaired, and five children died totally unsupervised.

Table 3: Case review findings: Supervision by type of death, children 0-9

Age	Type of Death	Caretaker Present	Caretaker Present, Impaired	Caretaker in Vicinity	Not Supervised	Unknown	Total
<1	Shaken/battering	1					1
	Motor Vehicle	1		1			2
	Drowning			1			1
	Suff/strangulation	9	1	2			12
	Natural	3		4		1	8
	Undetermined	1					1
	Sub Total		15	1	8	0	1
1-4	Shaken/battering	2					2
	Motor Vehicle	8	1	4	1		14
	Fire	3		1			4
	Drowning		1	4			5
	Fall			1			1
	Poisoning	1					1
	Firearm	1					1
	Suff/strangulation	1		1			2
	Natural	5		2			7
	Sub Total		21	2	13	1	
5-9	Motor Vehicle	8			2		10
	Fire	1		1			2
	Drowning	3		2			5
	Fall				1		1
	Poisoning	2		1			3
	Firearm				1		1
	Natural	1	2	1			4
Sub Total		15	2	5	4		26
Total		51	5	26	5	1	88

Source: 1997 Child Fatality Review Data

Among the children under one year of age, a caretaker was present in 15 cases at the time the incident or death occurred. In children aged 1-4, caretakers were present in 21 cases at the time of the incident

or death, and in children 5-9 years of age, caretakers were present in 15 of the cases at the time of the incident or death. Lack of direct, unimpaired supervision was a significant factor in eight drownings, one unintentional firearm shooting, one poisoning, and four suffocation/strangulations in children 0-9 years of age.

Family History of Contact with the Office of Services to Children and Families (SCF)

In 93 of the 245 reviewed cases there had been contact at some time between the State Office of Services to Children and Families and the families of the victims. The extent of this contact varied from a single referral to an open case with the family at the time of death. In 37 fatalities there was an SCF assessment due to the fatality.

Family History of Contact with the Adult and Family Services Division (AFS)

In 91 of the reviewed cases there had been contact between AFS and the families. The extent of this contact was unknown but can be considered an indication of lower income since AFS is the provider of multiple forms of financial assistance for families, including food stamps, welfare, and child care assistance.

Family History with both SCF and AFS

In 56 of the reviewed cases there is documentation of family contact with both AFS and SCF. Although there was little detail about the contact with the families, these agencies represent an existing channel for prevention efforts. Future data collection will result in more detailed information regarding family social context and the support services utilized by the families and children.

Place of Death

Children whose deaths were reviewed for this report died or were pronounced dead most frequently at a health care facility, followed by the child's home, on the road, at another residence, in a body of water, in a foster home, or at a child care facility. Most frequent causes of death in a health care facility were motor vehicle crashes and other natural causes. Most frequent causes in a residence were sudden unexpected infant death, firearm shootings, and suffocation and strangulation.

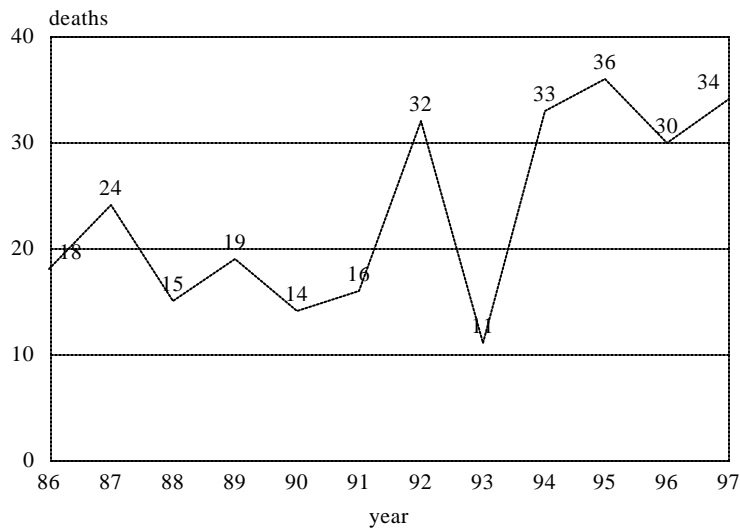
Death Scene Investigations

Death scene investigations were conducted in 198 of the reviewed fatalities. No investigation was carried out in 34 cases, and the existence of an investigation was unknown in 12 cases. In 34 cases that involved a medical examiner but no death scene investigation, the medical examiner may not have visited the death scene since the victim was transported to a health care facility.

Abuse and Neglect Determinations

Among the fatalities reviewed there were 34 cases in which abuse and neglect were determined to be factors contributing to or causing the death of children. The number of abuse and neglect fatalities has remained roughly stable since 1994. (Figure 4)

Figure 4. Abuse and neglect fatalities in Oregon
1986-1997



Source: State Office of Services to Children and Families and Child Fatality Review Data

Eleven of the reviewed cases occurred due to abuse. In 23 cases, neglect was determined to be a contributing factor in the death of children. Nine of the abuse deaths and 11 of the neglect deaths occurred in children under age 5. Neglect contributed to the following types of death: fire, poisoning, firearm shooting, exposure to the elements, motor vehicle crash, failure to obtain medical care, drowning, and a boating incident. Abuse was a factor in child battering, firearm shooting, poisoning, suffocation, and shaken baby syndrome.

Criminal Investigations and Judicial Outcomes

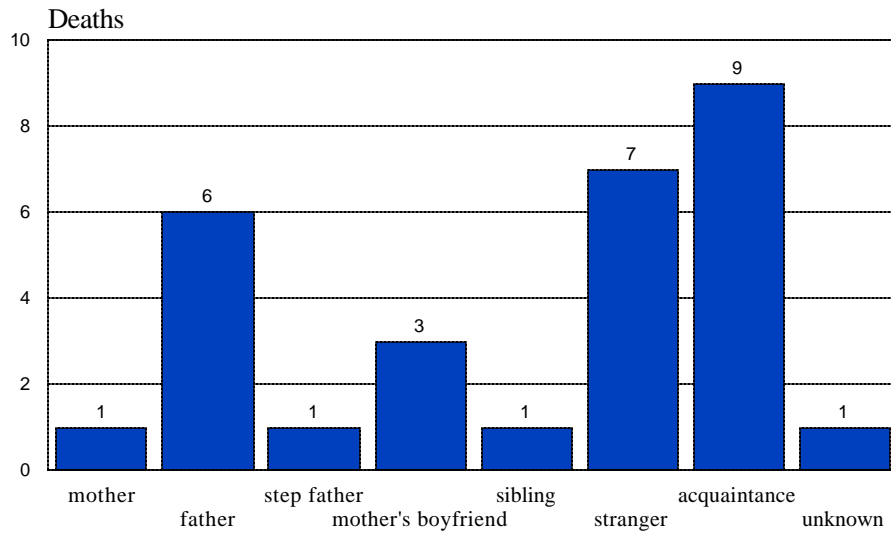
Criminal investigations were completed in 81 of the cases reviewed, with arrests made in 25 cases. The charges ranged from criminally negligent homicide to aggravated murder. Although an individual may have been arrested in relation to the fatality at the time of the review, the final outcome of the case often was not decided at the time of review.

Perpetrators

A perpetrator by definition is “one who commits or is responsible” for the fatality. There is no surveillance system in place to track the legal outcomes of individuals involved in child fatality crimes. The information presented here was gathered during follow-up through contacts and cooperation from law enforcement agencies and local district attorneys. A perpetrator was identified in 29 of the cases reviewed. Perpetrators were identified in deaths from motor vehicle crashes, firearm shootings, child

abuse, poisoning, and suffocation. While there were no gender differences among the victims, 26 of the perpetrators were male. Twenty one of the victims knew their perpetrators (Figure 5).

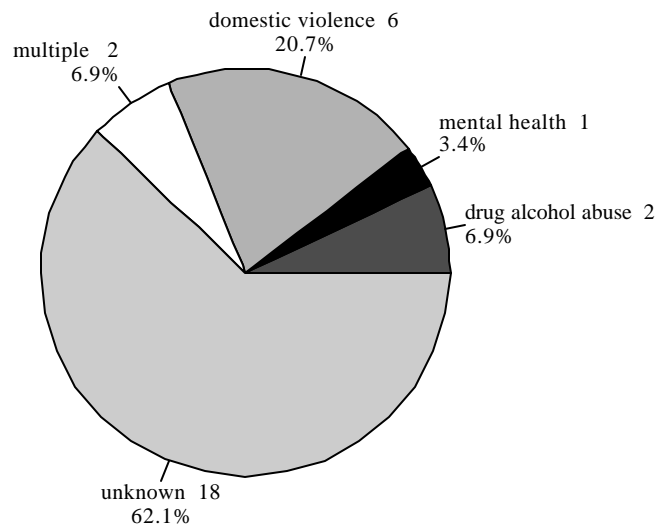
Figure 5. Perpetrator relationship to victim for children whose deaths were reviewed, N=29



Source: 1997 Oregon Child Fatality Review Data

Perpetrator-caused injury was known to be alcohol-and/or drug-related in seven of the 29 cases. Twenty-two of these cases were reviewed by the local teams. Eight were determined to be abuse related, seven neglect related. Five cases were the result of a murder/suicide and had no follow-up in terms of prosecution. The review process identified a dysfunctional family history in 11 of the victims. (Figure 6)

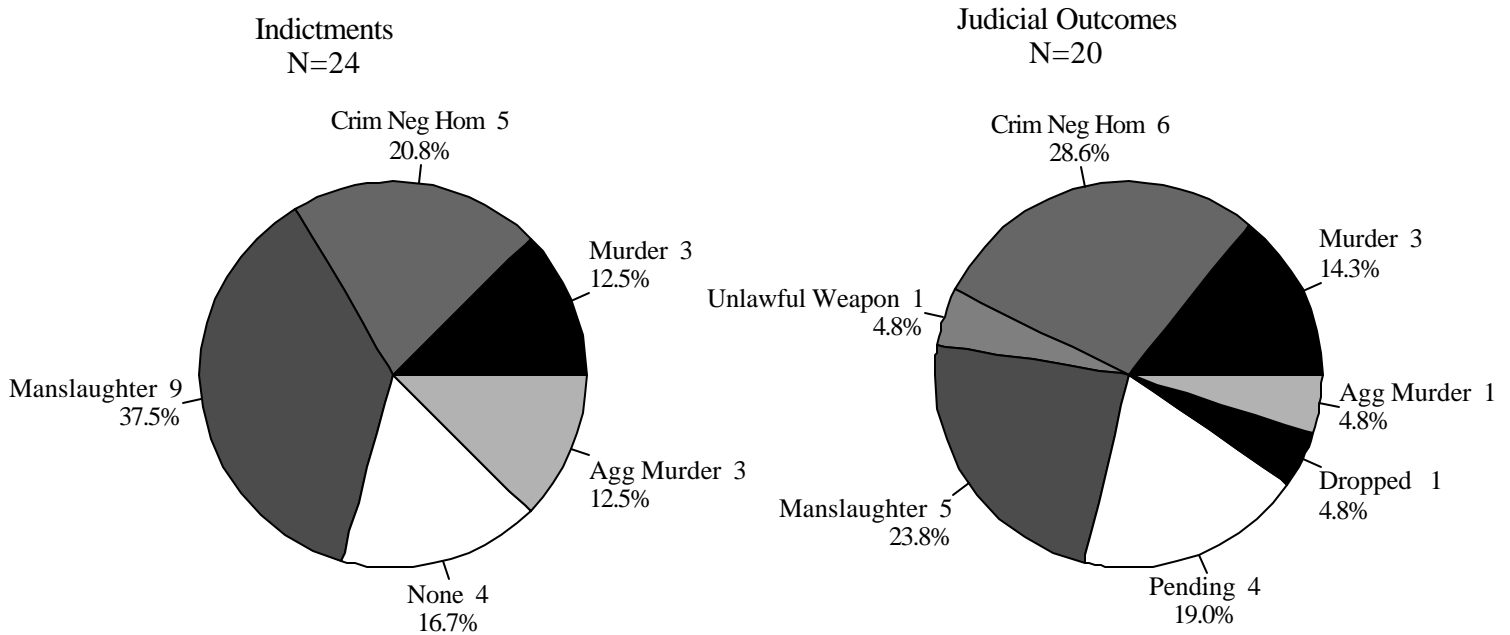
Figure 6. Social/familial factors of children who were crime victims, N=29



Source: 1997 Oregon Child Fatality Review Data

In four cases the perpetrator was arrested but then the case was dropped. Since many alleged perpetrators had multiple charges, only the most severe charge was recorded for this report. There were five cases of criminally negligent homicide, nine charges of manslaughter, three of murder, and three of aggravated murder. Convictions included six criminally negligent homicides, five manslaughters, three murders, and four pending trial. As of June 1998, 10 cases resulted in reduced convictions; six perpetrators were convicted as charged and four alleged offenders were awaiting a judicial outcome (Figure 7).

Figure 7. Judicial outcomes of crimes against children for children whose deaths were reviewed, N=29*



Source: 1997 Oregon Child Fatality Review Data
 * five cases of murder/suicide were not prosecuted

V. Case Review Findings by Cause

The remainder of this report addresses three major categories of fatality: unintentional injury, sudden unexpected infant death, and death due to violence. The data report includes every death to children in Oregon due to vehicle crash, drowning, suffocation and strangulation, fire, fall, poisoning, SIDS, firearm incidents, suicide, child battering, and shaken baby syndrome. The total number of deaths discussed in these sections include 217 of the 245 cases reviewed by local teams. The remaining 28 cases that are not discussed include 27 natural causes and one undetermined death, all of which were not anticipated or attended by a physician. Four of the 28 deaths due to natural causes were discussed in the preceding section: two medical neglect cases and two cases of death in children with disabilities.

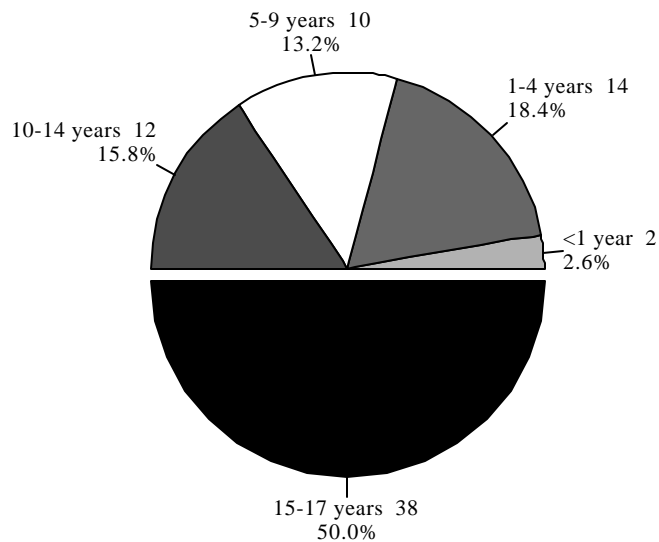
UNINTENTIONAL INJURY, N=130

Vehicle Crash Fatalities N=76

These cases represent the largest category of childhood death reviewed: 76 children died in vehicle crashes and pedalcycle events with motor vehicles. These included 71 motor vehicle related fatalities in which the incident occurred in Oregon, three children who died as a result of two plane crashes, one train related incident, and one farm equipment fatality.

Fifty-three of the victims were male; half were 15-17 years of age. The remaining deaths were evenly distributed among age groups: 1-4 (14 deaths), 5-9 (10 deaths), and 10-14 (12 deaths). Only two deaths occurred among children under 1 year of age (Figure 8).

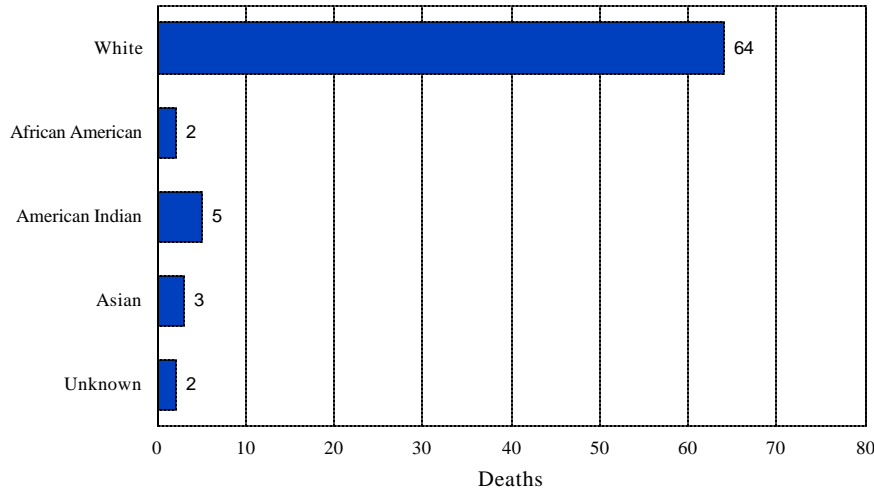
Figure 8. Motor vehicle fatalities by age group for children whose deaths were reviewed, N=76



Source: 1997 Oregon Child Fatality Review Data

American Indian children were disproportionately represented compared to their percentage of Oregon's overall population. The distribution of fatalities by race is illustrated in Figure 9.

Figure 9. Motor vehicle fatalities by race for children whose deaths were reviewed, N=76



Source: 1997 Oregon Child Fatality Review Data

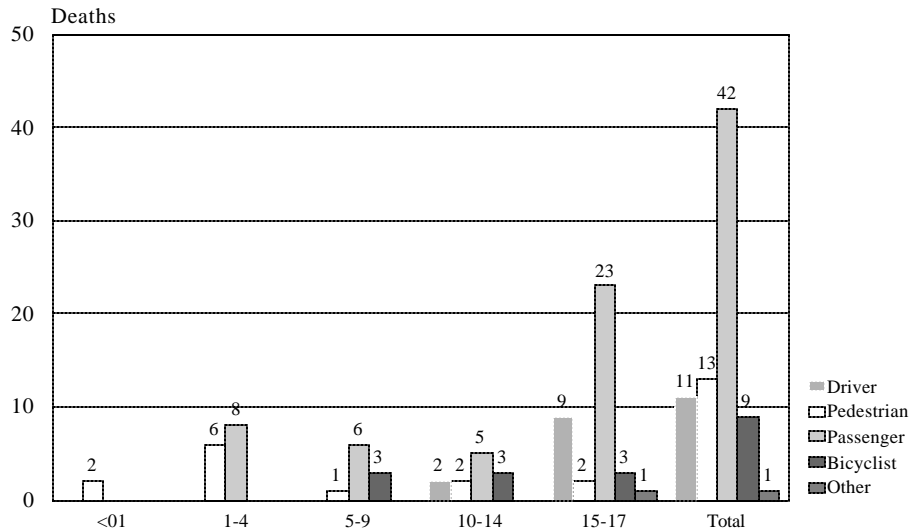
Vehicles involved in these deaths included cars, trucks, bicycles, sport utility vehicles, airplanes, a train, a farm vehicle, a motorcycle, and a sled. Sixty-two of the incidents occurred on the road, others occurred in driveways, at work, or off the road. Forty-four of the children died at the scene of the incident, while 32 died in a health care facility after transport.

An alcohol test was completed in 47 of the fatal crashes. One child passenger was found to be impaired, 11 drivers of the vehicle in which the child was killed were impaired, and five drivers of another car involved in the crash were impaired. Drug tests were done in half of the fatal crashes; four of those tests were positive.

Death scene investigations were conducted in 70 cases. Only deaths involving firearms had a higher percentage of documented death scene investigation. Criminal investigations were carried out in 27 of the fatal crashes, with arrests made in 11 cases.

There were 53 motor vehicle occupant, 13 pedestrian, and nine pedalcyclist fatalities. (The sledding related fatality is not included in this breakdown) A comparison of position of child by age group is presented in Figure 10.

Figure 10. Position of child by age group for children whose deaths were reviewed, N=76



Source: 1997 Oregon Child Fatality Review Data

Occupant

Children were either driving or passengers in 53 of the 76 fatalities. In crashes where restraints should have been in use, they were not used in 25 of the deaths and used incorrectly in seven. Across all age groups, lack of an appropriate restraint was a factor in 32 fatalities. This was highest in the 1-4 age group, followed by children aged 5-14 and then children aged 15-17. An alcohol test was conducted in 35 crashes. The driver was impaired in nine cases, and the other driver was impaired in five cases. Of six risk factors measured—impairment, poor weather, speeding, recklessness, driver error, and mechanical failure—driver error accounted for 35 of the fatalities.

Pedestrian

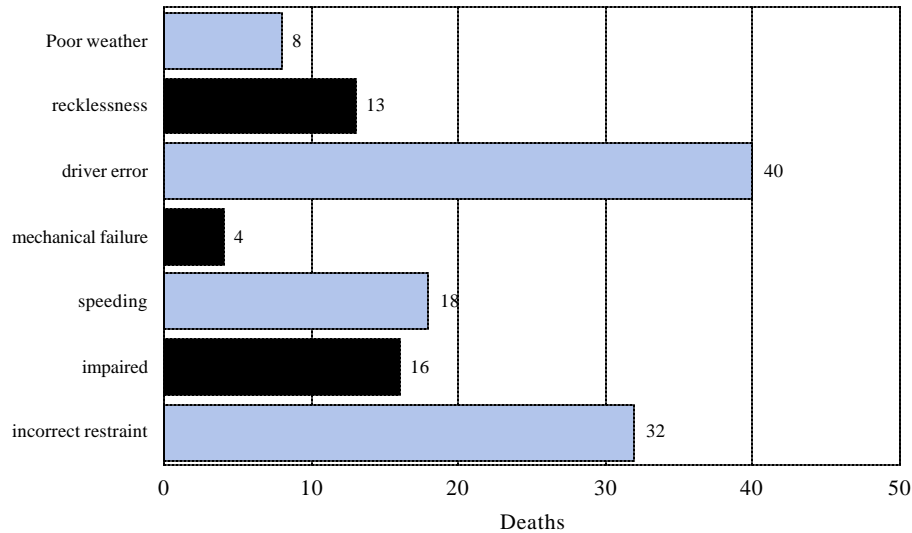
The thirteen pedestrian fatalities occurred across all age groups, with the highest occurrence in those aged 1-4. Eight involved a truck or sport utility vehicle. One incident was related to alcohol.

Pedalcyclist

There were nine fatal crashes involving pedalcyclists, three in each age group: 5-9, 10-14, and 15-17. Eight of the victims were male. Three were not wearing a helmet, and helmet use was not known in two cases. Helmet use decreased as age of the victim increased.

Other documented factors that contributed to vehicle related fatalities included driver error (40 cases), speeding (18 cases), impairment (16 cases), recklessness (13 cases), poor weather (eight cases), and mechanical failure (four cases). (Figure 11). The driver at fault was an unlicensed driver in eight of the fatal crashes.

Figure 11. Factors identified in motor vehicle fatalities for children whose deaths were reviewed, N=76 *



Source: 1997 Oregon Child Fatality Review Data
 * more than one factor can be involved in the fatality

In 12 cases, the review process noted areas where poor judgement was a factor. In five cases, the review process found negligence on the part of the parent or caretaker.

Factors identified in motor vehicle crash fatalities

Occupant

- Lack of/inappropriate use of restraints 32 cases
- Driver error 40 cases
- Excessive speed 18 cases
- Impairment 14 cases

Pedestrian

- Lack of appropriate supervision with young children in traffic 5 cases
- Height of sport utility vehicles and large trucks with minimal mirror capacity create blind spots close to the ground 4 cases

Pedalcyclist

- Failure to use helmet 3 cases

Examples of current safety initiatives include the following:

- Safety belt law: all occupants must wear seat belts, drivers responsible for children under age sixteen buckling up, children under 4 years of age and weighing less than 40 lbs. must be secured in a child safety seat
- Provisional licensing for teens: revoking license until age 18 if found drinking and driving or reckless and driving
- Child safety seat voucher programs
- Zero tolerance law: license suspension of arrested drivers under 21 for any alcohol use
- Bike helmet law: all bicyclists under age 16 must wear a helmet while riding a bicycle
- Driving under the influence of alcohol illegal: .08 blood alcohol content limit

County and State Team Recommendations to Prevent Vehicle Crash Fatalities

For public policymakers:

- Fund law enforcement agencies at levels that allow more vigorous enforcement of laws governing driving under the influence, seat belt use, bike helmet use and traffic safety.
- Enact legislation requiring parabolic mirrors on large trucks and recreational vehicles.
- Enact graduated drivers licensing legislation imposing restrictions for new drivers under age 18.

For Oregonians:

- Encourage all drivers and passengers to use appropriate restraints and seating positions: children under age 12 should remain in appropriate restraints in the rear seat and should never be seated with an airbag.
- Infants under 1 year or 20lbs to remain in rear-facing child safety seats.
- Fix mirrors on sport utility vehicles and trucks to provide adequate ground level visibility.
- Supervise children around traffic.
- Encourage all bicyclists to wear helmets.

**Drowning
Fatalities
N=24**

A total of 24 children drowned in Oregon in 1997. In 1996, the Oregon drowning fatality rate in children aged 0-17 was 2.2 per 100,000.

Seventeen males and seven females died in drowning incidents. Fatalities were evenly distributed among the age groups (except for the single death that occurred in a child under one year of age), with five deaths in the 1-4 and 5-9 age groups, six deaths in the 10-14 age group, and seven deaths in the 15-17 age group.

The majority of childhood drownings occurred in Oregon’s rivers. This was the case in every age group except for children under 1 year of age. Table 4 provides the frequencies of death by age group and type of water.

Table 4: Place of Drowning by Age Group, N=24

	<1	1-4	5-9	10-14	15-17	Total
Lake			1		1	2
River		2	3	4	5	14
Ocean				1		1
Bathtub		1				1
Swimming Pool		2	1	1		4
Other	1				1	2
Total	1	5	5	6	7	24

Source: 1997 Oregon Child Fatality Review Data

Local teams indicated that lack of appropriate supervision was a factor in 10 cases. Alcohol was involved in one death. In the two boating deaths neither child wore a personal flotation device (PFD). Nine of the 13 children over 10 years of age were known to be able to swim. Eight of the victims under age 10 did not know how to swim. In each of the five drowning cases in residential swimming pools and hot tubs, there was no four sided, gated fence closing off the pool from the home. Children were able to access the pool in each of these cases by walking out the back door while a caretaker was distracted. Local teams determined that negligence contributed to the fatality in four of the deaths. In six deaths lack of good judgement on the part of the caretaker/parent was identified as a contributing factor.

Factors identified in drowning fatalities

- Swimming in cold water with strong currents without a personal floatation device 9 cases
- Lack of appropriate supervision with young children in or around water 8 cases
- Failure of non-swimmers to wear personal floatation devices when swimming 6 cases
- Lack of four sided fencing with self-locking/latching gates in homes with pools 3 cases
- Failure to wear personal floatation devices when boating 2 cases

Examples of safety initiatives currently include the following:

- Signs posted in swimming areas warning of current
- 1997 life jacket law: children 12 and under required to wear life jacket while boating in Oregon
- Operation Coast: Ocean safety wave log roll prevention project
- Four sided fencing requirement around residential swimming pools

County and State Team Recommendations to Prevent Drowning Fatalities

For public policymakers:

- Fund law enforcement agencies at levels that will enable them to enforce driving under the influence laws, personal flotation device use in children in boats, and other safety rules.

For Oregonians:

- Supervise children very closely around water in the tub, on a lake, in a pool or on a river.
- Educate parents on the deadly nature of the cold and heavy currents in Oregon’s rivers and teach children to respect the rivers and waterways.
- Educate parents to require children to wear PFDs when boating and when non-swimmers are swimming.
- Place 4-sided fencing with gate alarms around all pools and spas.

**Unintentional Suffocation
&
Strangulation Fatalities
N=12**

Seven suffocations were unintentional overlays of infants. There were four unintentional self-hangings, three in the 0-4 age group, one in a car seat, another by a mini blind cord, and the third due to bunk bed design. The fourth was one case of unintentional autoerotic asphyxiation in the 10-14 age group. There was one incident of an unintentional death where an

unattended, active infant rolled onto a plastic bag.

Factors identified in unintentional suffocation/strangulation fatalities

- Cosleeping with an intoxicated or medically fragile parent 2 cases
- Bunk beds and cribs with bars or slats with more than 4 inch gaps 1 case
- Plastic bags 1 case

Examples of current safety initiatives include the following:

- Consumer product safety alerts on mini blinds, cribs, and plastic bags

County and State Team Recommendations to Prevent Suffocation & Strangulation Fatalities

For public policymakers:

- Incorporate information on hazards into child resource information for pediatricians, Services to Children and Families, foster parents, Head Start, and other service providers.

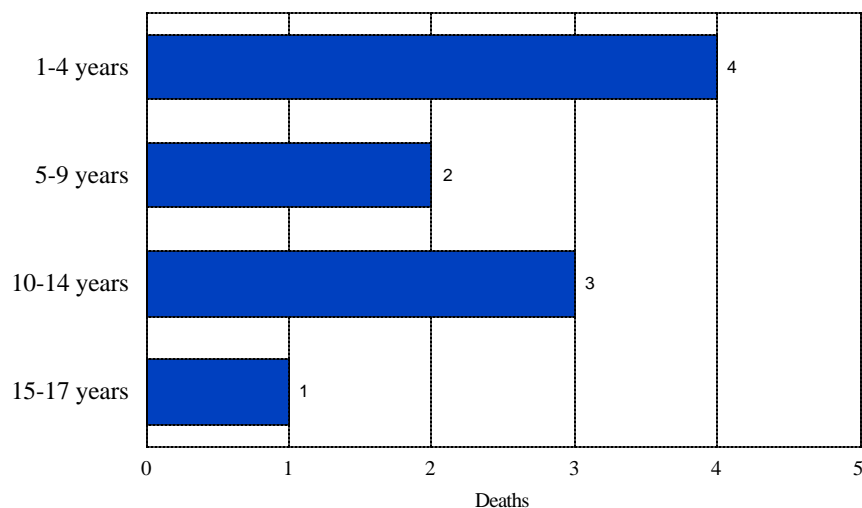
For Oregonians:

- Educate parents on the dangers of mini blinds, plastic bags, bunk beds and cribs with slats more than 4 inches apart.

**Fire
Fatalities
N=10**

These data represent 10 deaths in seven fire events. The Oregon 1996 fire fatality rate for children aged 0-17 was 1.6 per 100,000. Seven of the victims were male and three were female. There were three sibling groups that died in three of the fires. Figure 12 illustrates the age distribution of the fire deaths.

Figure 12. Fire fatalities by age group for children whose deaths were reviewed, N=10



Source: 1997 Oregon Child Fatality Review Data

Smoke detectors were not present in two fire events that claimed three children. Smoke detectors were not working in three fire events that claimed the lives of four children. The source of the fire was a child playing with a lighter or matches in three of the seven events. Other sources were lint in a clothes dryer, a candle, and a gas explosion. The victim was in bed in six cases and close to an exit in four cases. In all cases a caretaker was present or in the immediate vicinity. Eight of the 10 fatal cases were known to SCF and to AFS. Local teams determined parent/caretaker negligence as a factor contributing to four of the deaths. In three cases lack of good judgement on the part of parents/caretakers was a factor involved in the incident.

Factors identified in fire fatalities

- Failure to install/maintain smoke detectors in working order 7 cases
- Leaving matches and lighters within reach of children 4 cases
- Fire starters known in home with access to matches and lighters 3 cases
- Failure to keep clothes dryers free of lint 2 cases
- Leaving candles unattended 1 case

Examples of current safety initiatives include the following:

- 1998 Smoke detector law: all retail sales of smoke detectors must have 10 year batteries and a hush feature lasting less than 15 minutes
- Fire department smoke detector distribution

County and State Team Recommendations to Prevent Fire Fatalities

For public policymakers:

- Make smoke detectors and replacement batteries available at no cost to low income renters and home owners.
- Provide intervention, treatment, and monitoring of known fire starters.

For Oregonians:

- Install and maintain smoke detectors on every floor of the home, including the attic and basement.
- Store lighters and matches out of reach of children.

**Fall
Fatalities
N=4**

A total of four children died from falls in 1997, all of them males. There was one death each in age groups 1-4 and 5-9, and two in the 15-17 age group. One child under age 10 was unsupervised when he fell to his death. The caretaker of the other child under 10 was in the vicinity. One fall was from a stairway and the other three were on steep outdoor terrain. It was determined that there was no foul play in any of the falls. The 1996 fall fatality rate for Oregon children 0-17 years of age was 0.4 per 100,000.

Factors identified in fall fatalities

- Failure to exercise caution on steep terrain 3 cases
- Failure to supervise young children on stairs 1 case

Examples of current safety initiatives include the following:

- Signs warning climbers and hikers of perils
- Dismantling old fire escapes

County and State Team Recommendations to Prevent Fall Fatalities

For public policymakers:

- Enforce building code rules on publicly used stairways.

For Oregonians:

- Provide appropriate supervision for young children on stairways.
- Ensure that children who like to hike and climb receive appropriate training and set limits on their climbing and hiking attempts

**Unintentional
Poisoning
Fatalities
N=4**

Four children died from unintentional poisoning in 1997. Causes include unintentional carbon monoxide poisoning, prescription medication, and acute ethanolism. In one death, neglect was determined to be a contributing factor.

Factors involved in poisoning fatalities

- Failure to ensure appropriate ventilation when using propane fuel 1 case
- Binge drinking to overdose and death 2 cases

Examples of current safety initiatives include the following:

- Public awareness campaign on locking away household chemicals: Mr. Yuk
- Poison control hot line

County and Local Team Recommendations to Prevent Poisoning Fatalities**For Oregonians:**

- Educate parents on the risks of using alternative heat sources.
- Educate parents on the toxicology of alcohol.

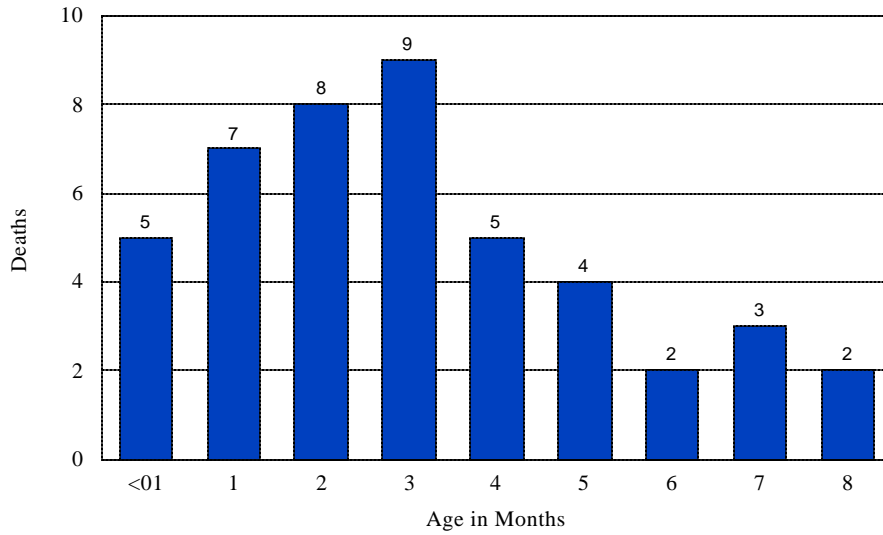
UNEXPECTED & UNEXPLAINED INFANT DEATH, N=45

This type/cause of death includes not only sudden infant death syndrome (SIDS) but also other causes of death that are unexplained and occur during the first year of life. In 1997, 45 children under 1 year of age died due to sudden unexplained causes. These represent 35 SIDS cases and 10 unexplained deaths. Although the preliminary nature of data on these unexplained cases makes the final coding unclear at this time (some of them may ultimately be included in the SIDS group), they are included here in an effort to group them for study and discussion. The diagnosis of SIDS is an exclusionary diagnosis that is made after an autopsy, a death scene investigation, and a complete medical history.⁵

In 1996, Oregon and other states in the Northwest had SIDS death rates much higher than the national rate--1.2 per 1,000 in Oregon versus 0.7 per 1,000 nationally. In fact, Oregon has the second highest SIDS rate in the country.²

Age at death in Oregon's cases ranged from days to 8 months. The peak incidence occurred at 3 months of age (Figure 13).

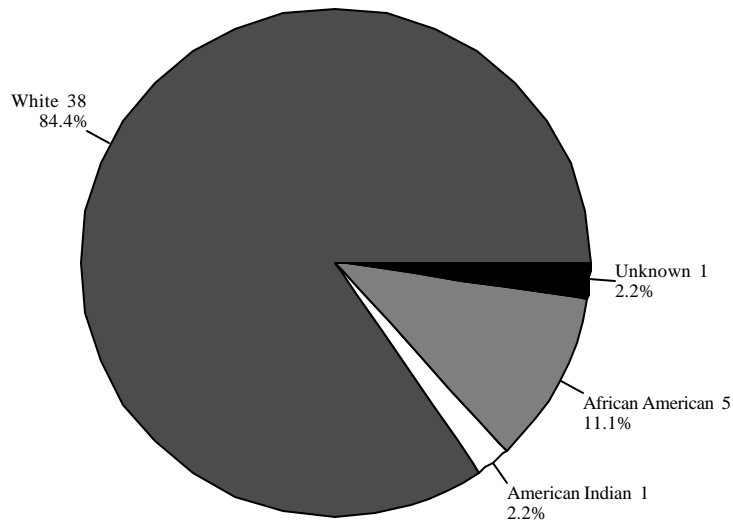
Figure 13. Unexpected and unexplained infant fatalities by age for children whose deaths were reviewed, N=45



Source: 1997 Oregon Child Fatality Review Data

The gender distribution was nearly equal with 24 males and 21 females. As in other states, African American infants were disproportionately represented in this category of death with 5 cases. The distribution by race is illustrated in Figure 14.

Figure 14. Unexpected and unexplained infant fatalities by race for children whose deaths were reviewed, N=45



Source: 1997 Oregon Child Fatality Review Data

A death scene investigation was conducted in 30 of the reviewed cases; no investigation was conducted in eight. The occurrence of an investigation could not be determined in the remaining seven cases. In 42 cases an autopsy was performed; in three cases it could not be determined if an autopsy was performed. These steps are essential to making a diagnosis of SIDS. In eight of the cases a criminal investigation was conducted. It is unknown whether any arrests were made.

The nature of SIDS makes it difficult to describe, in that it is the unexplained and unexpected death of a previously healthy, well-developing infant. It is the third leading cause of death for children under 1 year, behind both perinatal conditions and congenital anomalies, and is the leading cause of infant death in the reviewed population. In an attempt to identify some commonalities in these deaths and to target strategies for prevention, data were gathered relating to sleep position, parental behavior, and other underlying conditions.

Nine cases had an SCF assessment due to the death while 18 victims had an SCF history prior to the death. Eighteen had a history with AFS and 11 had a history with both agencies.

Since 1994, a national campaign targeted at reducing the incidence of SIDS called “Back to Sleep” appears to be having an impact, as the rates have been declining. This campaign promotes putting healthy infants on their back to sleep. Nevertheless, in 18 of the review cases, the child was discovered face down on his or her stomach, in 10 on a side, and in 10 on the back. Since the child could have rolled over, the regular sleep position of the child was requested. This question was unanswered in 26 of the cases, however.

The maternal age distribution was comparable to the latest vital statistics data on live births in Oregon. However, 22% of the cases were low birth weight compared to 5% of Oregon live births. This could be an indication that prematurity and low birth weight were an underlying factor in these deaths.

Maternal smoking during pregnancy occurred in 53% of the unexpected infant deaths compared to the overall 19% of mothers in Oregon who used tobacco during pregnancy (1991-1995). Nationally during this same period, 13% of mothers smoked.² Since information on maternal smoking was obtained from birth certificates and prenatal care charts, this number is an underestimate of the true rate of occurrence. A 1994 Oregon Health Division study indicated that 7.1% of mothers interviewed who were reported as not smoking on the birth certificate had smoked during pregnancy.⁶ These data support research findings that maternal smoking increases the risk for SIDS.

The role of cosleeping in unexplained infant death was a question raised by a number of the local teams. Among these 45 children, more than half were sleeping alone. Of the cases where the infant was sleeping with another person, five were on the couch and 10 were in the parents’ bed. For this report, in those cases where positional asphyxia or overlay were stated anywhere on the death certificate, it was recorded as a suffocation (see pg 26) and not a case of unexpected infant death. Since the prevalence of sleeping with infants in the general population is unknown, it is impossible to draw any

conclusions about cosleeping and its relation to an unexplained infant death. The American Academy of Pediatrics position statement, “Does Bed Sharing Affect the Risk of SIDS?”⁸ is included in Appendix C as guidance for teams.

Factors identified in unexpected & unexplained infant fatalities

- Maternal smoking during pregnancy 24 cases
- Sleep position 18 victims found on stomach
- Birth weight 10 cases weighed less than 2500 grams at birth

Examples of current safety initiatives include the following:

- Back to Sleep campaigns
- Smoking cessation programs

**County and State Team Recommendations to Prevent
Unexpected & Unexplained Infant Death**

For public policymakers:

- Implement training for law enforcement agencies on the use of standard scene investigation protocols in infant deaths.
- Create standards of care for new parents that include education on SIDS prevention, the risks of smoking, sleeping position, and proper bedding.

For Oregonians:

- Teach new parents to put healthy infants on their back to sleep.
- Encourage pregnant parents and family members who smoke to stop smoking.

DEATH DUE TO VIOLENCE, N=42

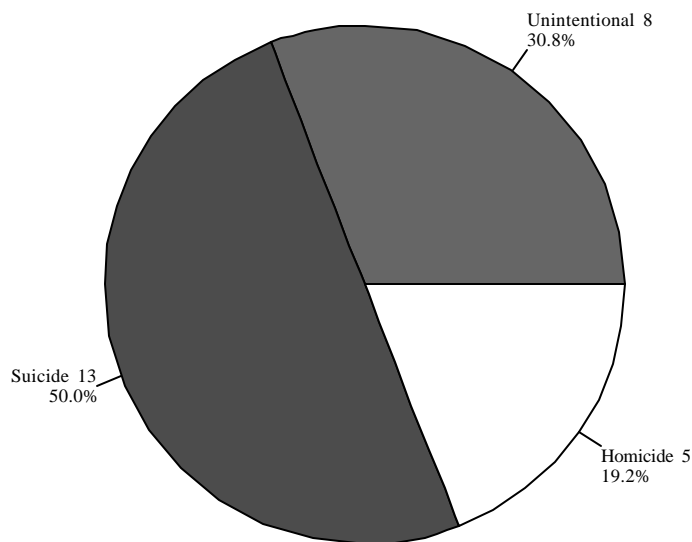
Violence is defined as the use of physical force with the intent to inflict injury or death upon oneself or another. Violence may be inflicted by the victims on themselves in the case of suicide and by perpetrators on victims. For the purposes of discussing firearm related death as a group, unintentional firearm shootings are included in the violence section. Violent deaths in this category occurred in all age groups. Twenty six children were killed by firearms, six children died as a result of self hanging, three children were intentionally suffocated, three were battered by a caretaker, and four died as a result of intentional poisoning.

**Firearm
Fatalities
N=26**

A total of 26 children were killed by firearms in 1997. Of those, 8 were unintentional deaths, 13 were suicides, and 5 were homicides (Figure 15). Oregon's 1996 firearm fatality rate among resident children aged 0-17 was 2.3 per 100,000.

An Oregon study of firearm storage reported that 6.2% of households with children had firearms that were loaded and unlocked.⁷ The data on firearm injury fatality are divided into three separate categories: unintentional, homicide, and suicide.

Figure 15. Firearm fatalities by intent for children whose deaths were reviewed, N=26



Source: 1997 Oregon Child Fatality Review Data

Due to the interdisciplinary approach of the CFR process, the data presented in this section may not agree with death certificate data. There are some cases where the manner of death was listed as a homicide on the death certificate since by definition a person killing another person is a homicide. This definition, however, may not take into account intent. The additional information gathered from the CFR process allows for a more thorough reconstruction of the circumstances surrounding the death and presents a more accurate picture of intent. In some situations the circumstances remain unclear and the actual manner of death remains undetermined. However, all childhood fatalities that were inflicted with a firearm fall under the criteria for review and are part of this data set.

Unintentional Firearm Fatalities N=8

There were eight unintentional firearm injury fatalities in 1997. The majority of the victims were 10-14 years of age with one case each in the 5-9 and 15-17 age groups. Seven were male and all were white. In five of the eight cases there was no supervision. The perpetrators ranged from 11 to 17 years of age. In all cases there was a death scene investigation, in seven there was a criminal investigation, and in five cases an arrest was made. Four of these deaths were with a handgun and four with a rifle/shotgun. None of the firearms were stored in a locked location, none had a trigger lock, and in only one case was the firearm stored separately from the ammunition. In all but one of these incidents kids were playing with guns. Studies indicate that safe storage laws appear to prevent unintentional shooting deaths among children under 15.⁸

Half of these cases were reviewed at the local level and two were referred to the State CFR Team. In six of these cases review teams identified a lack of appropriate safety precautions by parents or caregivers. For example, children were left unsupervised with the knowledge of and access to a loaded gun. One case that the review team determined to be neglect involved an intoxicated caretaker playing Russian roulette with the victim.

Firearm Suicide N=13 (additional factors enumerated in the suicide section)

There were 13 suicides by firearm. Three victims were 14 years of age, nine were 15-17. There were twice as many males as females. Only one of these deaths was witnessed. In two cases the firearm was stored in a locked location. In four cases the victim was under the influence of alcohol and/or other drugs. Alcohol and/or other drugs were a factor only in the fatalities among 15-17 year olds. Eleven of the incidents involved a handgun, one other a rifle. Nine of these deaths occurred at home. In all cases a death scene investigation was conducted, and in five cases a criminal investigation occurred. All cases were reviewed by the local team, three were referred to the SCFRT for review. For an elaboration on the risk factors associated with suicide, refer to the following section of this report.

Firearm Homicide N=5

Oregon's 1996 homicide fatality rate among resident children aged 0-17 was 0.4 per 100,000. In 1997, there were five firearm homicides, one each in the 1-4 and 10-14 age groups—both the result of parental homicide/suicide. There were three firearm homicides in the 15-17 age group, two of them drive-by shootings. The perpetrators ranged in age from 17 to 43. Alcohol and/or other drugs were

known to be a factor in four of the five fatalities. No gender differences were observed. All of the 15-17 year old victims were African American. In all cases a death scene and criminal investigation followed, and two arrests were made. All but one of the cases was reviewed by the local team; two cases were referred to the state team for review.

Factors identified in firearm fatalities

- Access to/lack of safe storage of firearms 19 cases
- Alcohol and/or other drug use 10 cases

Examples of current safety initiatives include the following:

- Oregon Ceasefire gun buy-back program
- Oregon Safe Handgun Storage Coalition

County and State Team Recommendations to Prevent Firearm Fatalities

For public policymakers:

- Enact legislation to increase safe storage of firearms.

For Oregonians:

- Firearm owners keep firearms in a safely locked location separate from ammunition.
- Ensure that all adults who interact with children should be able to recognize the signs that children are depressed.

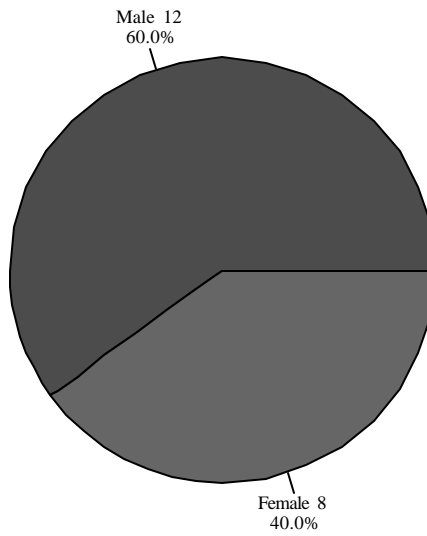
**Suicide
Fatalities
N=20**

For the twenty children who committed suicide in Oregon in 1997, additional information was collected and is enumerated upon here. These 20 cases include the 13 suicide by firearm that were previously mentioned.

Suicide is the second leading cause of death among Oregonians aged 10-17 and has shown a five-fold increase over the last 35 years.⁹ Data from the 1997 Oregon Youth Risk Behavior Survey suggest that about 35,000 youth in Oregon considered suicide, 13,000 attempted it, and 2,000-3,000 were treated for attempts in 1996.

Six youths in the 10-14 age group and 14 youths in the 15-17 age group committed suicide. Between 1992 and 1994 males were four times more likely to commit suicide than females.¹⁰ In 1997 there were eight female and 12 male suicides in Oregon (Figure 16).

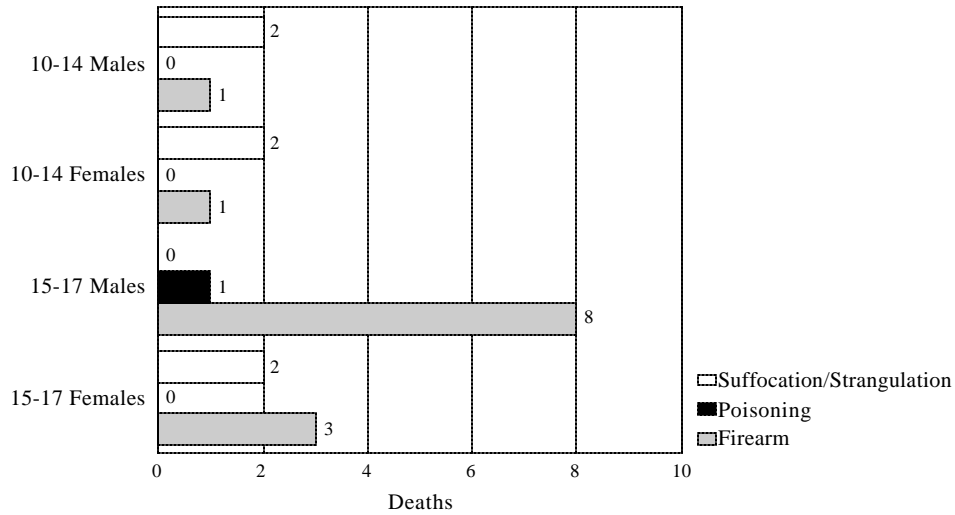
Figure 16 Youth suicides by gender for children whose deaths were reviewed N=20



Source: 1997 Oregon Child Fatality Review Data

The 1997 case review data showed that suicide methods often varied according to age group and gender. Males used firearms twice as often as females, and females used strangulation twice as often as males. Figure 17 illustrates the methods used by males and females by age group.

Figure 17. Suicide method by gender and age for children whose deaths were reviewed, N=20

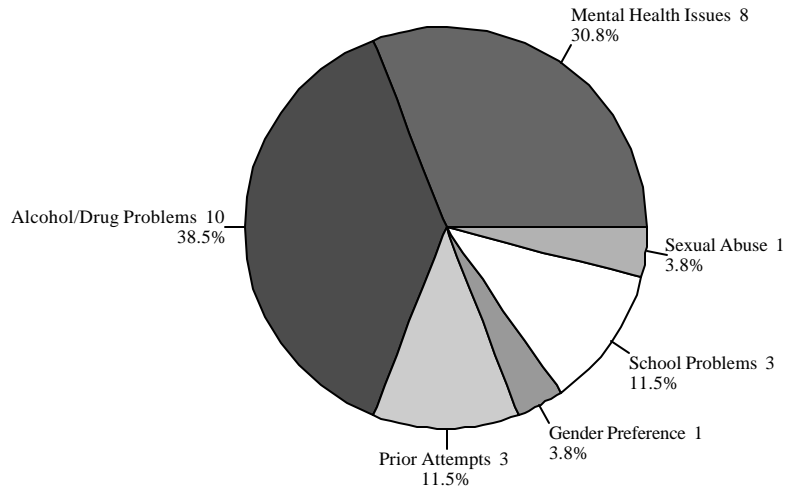


Source: 1997 Oregon Child Fatality Review Data

Individuals at risk for suicide commonly demonstrate certain behaviors that were not observed in this data set. Although five youths were found to be under the influence of alcohol or drugs at the time of death and three had prior suicide attempts, in 11 cases the suicide was completely unexpected by the parent. These data are not what would be expected from the literature. A history of previous attempts has been noted to be as high as 40% in those who commit suicide.¹¹ In 10 cases the youth left a suicide note. Figure 18 illustrates the youths' problems identified through the review process.

Conspicuously absent from this list are reports of a history of physical abuse. Nine of the cases had a history with the Office of Services to Children and Families. Report of gender identity and sexual orientation issues were well below what would be expected in these cases. It is thought by researchers working with the sexual minority communities that gay and lesbian teens are more likely to attempt suicide than other youth.^{11,12}

Figure 18. Problems of youth who committed suicide for children whose deaths were reviewed, N=20 *



Source: 1997 Oregon Child Fatality Review Data
 *a child can report more than one problem

Factors identified in suicide fatalities

- Access to firearms 13 cases
- Alcohol and drug problems 10 cases
- Mental health problems/depression 8 cases
- Prior attempts 3 cases
- School problems 3 cases
- Victim of sexual abuse 1 case
- Gender identity and sexual orientation issues 1 case

Examples of current safety initiatives include the following:

- The Governor’s Youth Suicide Prevention Task Force

County and State Team Recommendations to Prevent Youth Suicide Fatalities

For public policymakers:

- Enact legislation to decrease youth access to firearms.
- Fund mental health treatment services for children.

For Oregonians:

- Ensure that parents and adults who interact with children are aware of the signs that children are depressed.

**Intentional
Suffocation &
Strangulation
Fatalities
N=9**

There were two homicides and one undetermined case in this group. (Six suicides due to strangulation were enumerated in the previous section in this report.) Two neonates were found in plastic bags with unknown circumstances of birth. One was determined to be a homicide, and the other remains undetermined. There was a homicide of an infant who was wrapped up in a sleeping bag. No recommendations were documented in these cases.

**Child
Battering
& Shaken
Baby
Syndrome
Fatalities
N=3**

There were two deaths due to child battering and one due to shaken baby syndrome. All were committed by the boyfriend of the mother. The manner of death diagnosed by medical examiners was homicide in each case. All were judged to be intentional. Local fatality review teams determined that all three were due to abuse. Death scene investigations, autopsies, and criminal investigations were carried out in each case. All incidents occurred in the home of the child. Two of the children were male and one was female. None of these families had a history with SCF. Each case was investigated by SCF after the death. Two of the families had a history with AFS. Domestic violence was listed as a factor in two cases. The injury was alcohol and/or other drug related in two of the three cases. Arrests

were made in all three cases. A conviction and prison sentence were rendered in the two cases that have been prosecuted. Judicial outcome on the third case is still pending.

Factors identified in shaken baby/child battering fatalities

- Alcohol and/or drug abuse in parents 2 cases
- History of domestic violence in the home 2 cases

Examples of current safety initiatives include the following:

- Shaken baby awareness campaigns
- Public awareness campaigns identifying domestic violence as a problem

County and State Team Recommendations to Prevent Child Battering and Shaken Baby Syndrome Fatalities

For public policymakers:

- Establish treatment programs for women with alcohol and/or drug abuse problems, providing the extended care options and job training and placement that help them to be successful and independent of an abusing spouse or partner.
- Conduct home visits to young mothers in the first six months as the standard of care.
- Provide child care subsidies for low and moderate income parents.

For Oregonians:

- Educate families to be aware of domestic violence and assist and encourage victims.
- Encourage communities to reach out to new parents so that they receive adequate support in caring for infants, including assistance with dealing with frustration and exhaustion.

**Intentional
Poisoning
Fatalities
N=4**

There were three siblings who were poisoned intentionally with prescription medication in a murder/suicide event. These deaths were determined to be due to abuse. This murder/suicide case involved a parent who committed suicide after murdering his children. Domestic violence and alcohol abuse were documented problems in this family. No recommendations were documented on this case. The fourth case was a intentional drug overdose and is enumerated on in the suicide section.

VI. Progress and Positive Outcomes



Data Information System

- During 1997, the prototype of a STAT data collection form was completed. That pilot effort made this report possible. The revised version for 1998 will be implemented in January 1999.
- Data collection on arrest and conviction outcomes on perpetrators of crimes committed against children who die was completed for this report. This data collection effort is a follow-up to what county teams submit on data collection forms. STAT urges teams to continue turning in data forms as soon as review is complete. STAT will follow up on data elements whose outcomes have not been determined.
- The Oregon Health Division now has an Injury Epidemiologist who will be responsible for developing an injury database for the state of Oregon

Local CFR Teams

- CFR Teams have been established in 35 Oregon counties.
- Twenty-two teams met to review cases of child fatality in 1997. Seven teams had no reviewable deaths in their counties.

Legislation

- Effective October 4, 1997, Oregon law doubled traffic fines in school zones under certain conditions. Signs must be posted near schools warning drivers of the increase. Under the law, courts are not allowed to waive, reduce, or suspend the amounts of the fines.
- Effective January 1, 1998 Oregon law requires retail sales of smoke detectors to be restricted to a type with 10-year batteries. All detectors are required to have a hush feature to allow for temporary disengagement of the alarm for not more than 15 minutes.
- Effective February 14, 1998, all children 12 and under must wear a personal flotation device while boating in Oregon

Injury Prevention

- The Oregon School Health Education Coalition has reviewed a plan for school health education curricula that includes injury prevention.
- Portland Fire Bureau and other fire departments throughout the state are implementing in schools an injury prevention curriculum known as “Risk Watch.”
- Oregon SAFE KIDS Coalitions are forming in three counties.

- Trauma hospitals are providing injury prevention education throughout Oregon.
- Oregon Department of Transportation is placing rumble strips on all portions of the rural interstate highway system to prevent “drift off the road” crashes.
- The Alliance for Community Traffic Safety (ACTS) has checked over 700 child safety seats in 31 clinics through April 1998. ACTS provided the National Highway Traffic Safety Administration certification course for child safety seat technicians in July 1998.

Perinatal

- Fetal and Infant Mortality Review processes were piloted in three counties in 1997.
- Back to Sleep awareness campaigns took place in every county.
- A SIDS education workshop was sponsored by the Marion County CFR team.

Youth Suicide

- A Youth Suicide Prevention Coordinator position was established at the Health Division. The coordinator is responsible for developing and implementing a state plan on suicide prevention. This coordinator is a member of the State Child Fatality Review Team (SCFRT).
- The SCFTR began reviewing every youth suicide.

VII. Areas For Improvement

Cases Reviewed

Most often, children die close to home, in their own counties. But in situations where children die in another county after a transport to a hospital or traveling with their families, county teams may have to decide which team will review the death. If a child dies as the result of an injury and/or event outside his or her county of residence, the review of the death should take place in the county where the incident occurred. If a child dies as the result of an illness outside his or her county of residence, the death will be reviewed by the county where the child lived, unless the illness was caused by factors in another county. In some cases more than one county team will review the same death. In the majority of cases the CFR protocol asks that counties review deaths that occur in their county. Counties that have worked together to decide who will review a case will also send information about the case to the reviewing team. See Appendix D for a detailed description of the decision process for which county jurisdiction should review a case of death.

Table 5 lists the distribution of deaths by county of death and county of deceased's residence and documents the number of cases reviewed by each county. (Adding numbers from the first two columns will not provide an appropriate total of cases that should have been reviewed. The cases reviewed column indicates simply the number of cases that a CFR team chose to review based on local protocol and on decisions made in concert with neighboring counties.) A total of 178 cases were reviewed by county CFR teams, and an additional 67 were prepared and entered into the database by STAT. As Table 5 shows, there was significant jurisdictional overlap in determining which county was responsible for the review of a child fatality. STAT recommended that a case be reviewed by the county in which the child died; nevertheless, some cases were reviewed by the child's county of residence or the county in which the incident occurred.

Table 5: 1997 Child Fatality and Cases Reviewed by County (April 1998)

County	County of Death	County Residence	Cases Reviewed	County	County of Death	County of Residence	Cases Reviewed
Baker	1	0	0	Lane	17	21	7
Benton	1	0	0	Lincoln	5	4	5
Clackamas	21	28	21	Linn	7	10	4
Clatsop	5	4	0	Malhuer	2	1	1
Columbia	3	1	2	Marion	19	21	20
Coos	4	5	4	Morrow	1	1	0
Crook	1	1	1	Multnomah	63	36	37
Curry	0	0	0	Polk	3	2	3
Deschutes	8	5	4	Sherman	1	0	0
Douglas	16	12	14	Tillamook	3	2	2
Gilliam	0	0	0	Umatilla	8	8	6
Grant	1	0	0	Union	3	4	3
Harney	0	0	0	Wallowa	0	0	0
Hood River	1	3	0	Wasco	3	2	2
Jackson	8	9	7	Washington	17	24	20
Jefferson	7	8	7	Wheeler	0	0	0
Josephine	0	0	0	Yamhill	4	6	0
Klamath	12	9	8	Out of State	0	(18*)	(4*)
Lake	0	0	0	Total	245	245	178

Source: 1997 Oregon Child Fatality Review Data

*Reviewed by County of Death and added to County Totals here

Twenty-one counties reviewed cases in 1997, and seven more counties had no reviewable deaths. Only seven counties had a reviewable death(s) for which STAT has received no data form or record that a review occurred.

Supervision of Children

Supervision is one of the most difficult categories to define. Teams were given no hard-and-fast definition, and consequently the category was applied to circumstances as diverse as drowning, motor vehicle crashes, fires, falls, poisonings, and firearm shootings. Many counties reported that a caretaker was in the vicinity. In some cases this meant that it was nighttime and the family members were asleep in their respective bedrooms; in other cases it meant that the caretaker was in another room when a child

drowned in a bathtub or swimming pool. In the first case, sleeping “in the vicinity” at night does not generate concern or ideas for prevention, as no one expects caretakers to remain awake 24 hours a day to watch over their children. But in the second, being “in the vicinity” when a drowning occurs is clearly not adequate supervision given the inherent dangers of small children left unattended near water. It is inappropriate to generalize that the caretaker’s being in the vicinity is sufficient supervision when the cause of death occurs due to drowning, poisoning, suffocation and strangulation, or unintentional firearm shooting.

AFS and SCF History

Another area of concern is the family history with social service agencies. When families are known to SCF or AFS, it is an avenue for intervention. However, the CFR Teams were asked to answer only one broad question with a lack of differentiation. Teams did not have the opportunity to designate the type of contact, outcomes, whether a case was closed or open at time of death, and which family member the agency was working with. In many cases the contact with SCF was regarding a different child or family member, maybe even in a different family constellation. Still, knowing that the family has been in contact with these agencies provides a means to gather further information on the social context in which these children died. In 56 reviewed cases there was documentation of family contact with both AFS and SCF. Future data collection will result in more detailed information regarding family social context and the support available to families and children.

Abuse and Neglect Determinations

In some cases the local teams did not review a death or make a determination. Reasons for this range from inability to reach consensus; SCF staff missing from the review; incomplete death scene investigation information; lack of an autopsy; and/or the child who died was known to review committee, which made team members uncomfortable in rendering neglect determination. STAT has found numerous instances where teams found no abuse or neglect when it was clear that there was a history of SCF involvement with the family and/or the death appeared to be caused by abuse or negligence on the part of a caretaker. The district attorney’s office in one county chose not to review cases until criminal prosecution was complete. This poses a problem because in order to be productive and useful, the process depends on a timely review as soon as possible after completion of the death scene and criminal investigations. The CFR process is designed to provide better case coordination between agencies, minimizing duplication of effort and allowing information sharing across agency jurisdictions.

The issue of medical neglect was brought to the attention of the SCFRT in 1997 after a number of treatable childhood ailments resulted in death. As a result of these cases, there has been a recommendation to eliminate in ORS 163.115 (4) the affirmative murder defense for treatment by spiritual or religious means.

Alcohol and/or Other Drug Abuse

Another important area of concern is the influence of alcohol and other drugs on the lives of children.

Teams were asked to indicate when the injury was related to use of drugs and/or alcohol. However, this information has been contradictory. For example, the data collection might indicate that a driver was impaired but not report that the injury was not alcohol-related or other drug-related. As alcohol and other drug abuse continue to impact the lives of our families and children, effort will be made to investigate and document its role in childhood fatality.

Death Scene Investigations

In 34 cases no death scene investigation was conducted, and in 12 cases it was unknown whether an investigation had taken place. In the 34 cases that involved a medical examiner but no death scene investigation, the medical examiner may not have visited the death scene since the victim was transported to a health care facility. This appears to be unremarkable and accepted practice. Many teams have discussed the need for clearly defined protocols for all child death scene investigations; as the CFR process matures, these unknown cases can become known.

Data Form

In November 1997, local CFR teams were asked to pilot a new form to collect detailed data describing child fatalities that were reviewed by the teams. STAT will work to maintain the basic structure of the data form while altering questions to assure that the intended data are collected. The revised data form will be accompanied by a key instructing users in detail about questions on the form. This revision should increase the local team's ability to complete items on the form and improve data collection for the next report.

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