

# Violent Deaths in Oregon: *2006*

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**Oregon Violent Death Reporting System  
Oregon Department of Human Services  
Office of Disease Prevention and Epidemiology**

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# Violent Deaths in Oregon: 2006

## *Executive Summary*

The Oregon Violent Death Reporting System (ORVDRS) is a statewide, active surveillance system that collects detailed information on all homicides, suicides, deaths of undetermined intent, deaths resulting from legal intervention, and deaths related to unintentional firearm injuries. The goals of this system are to generate public health information on violent deaths and to work with partners to develop prevention strategies. Since 2003, ORVDRS has collected data from Oregon medical examiners, local police, death certificates, and the Homicide Incident Tracking System. This report describes data collected in the system's fourth year.

### *Findings*

- In 2006 violent death ranks as the second leading cause of death among Oregonian ages of 15 to 34, the third leading cause of death among Oregonians under age of 55 years and the eighth leading cause among all Oregonians. Violent death accounted for approximately 35 percent of total injury deaths.
- Of 790 violent deaths among Oregonians (crude rate of 21.3 deaths per 100,000 population):
  - 569 (72 percent) were deaths by suicide (15.4 per 100,000);
  - 108 (14 percent) by homicide (2.9 per 100,000);
  - 101 (13 percent) by undetermined manner (2.7 per 100,000);
  - 11 (1 percent) by legal intervention; and
  - 1 by unintentional firearm injury.

Thirteen incidents involved more than one death; 10 of those were homicide-suicides.

- Gunshot wound was the most common mechanism of death, accounting for nearly 47 percent of violent deaths, followed by poisoning (27 percent) and hanging (13 percent).
- Suicide remains a serious public health problem in Oregon.
  - Suicides among youth aged 10-24 increased from 61 (8.2 per 100,000) in 2005 to 75 (10.2 per 100,000) in 2006.
  - Suicides among women increased from 115 (6.2 per 100,000) in 2005 to 134 (7.2 per 100,000) in 2006.
- From 2005 to 2006, there was little change in suicide deaths among young veterans under age of 65 years and a slight decline among elder veterans.

- More than 50 percent of people who died by suicide were reported to have experienced a recent depressed mood. Many of them weren't diagnosed and/or treated for mental and behavioral health problems.
- Twenty homicide deaths occurred among children under age of 18 years.
  - Ten of those children died as a result of physical abuse. The number of child abuse deaths was the highest since 2003.

### *Recommendations*

- Train health care providers to screen and treat depression, and to screen and refer individuals at risk for suicide for appropriate care.<sup>1</sup>
- Build systems to provide follow-up to patients with a positive screening test for depression and suicide risk.<sup>1</sup>
- Implement community-based suicide-prevention activities that link at-risk populations with social services, health care, and opportunities for socialization.
- Develop a prevention plan to reduce suicide among Oregonians across the life span.
- Develop and support activities to reduce suicide among Oregon veterans.
- Obtain data on Oregonians who served in the regular Army, Army Reserves, Oregon National Guard and other military branches. Use these data and the suicide data to conduct epidemiological studies to better understand suicide among veterans and potentially contribute to prevention.
- Study and produce reports on five years of aggregated data on intimate partner violence homicide, homicide, and child abuse.
- Review with partners prevention strategies for child abuse deaths.

# Violent Deaths in Oregon: 2006

The Oregon Violent Death Reporting System (ORVDRS) is a statewide, active surveillance system that collects detailed information on all homicides, suicides, deaths of undetermined intent, deaths resulting from legal intervention, and deaths related to unintentional firearm injuries. Since 2003, ORVDRS has collected data from Oregon medical examiners' reports, local police reports, death certificates and the Homicide Incident Tracking System. This report describes data collected during the fourth year.

## *Case Definition*

In this report, violent deaths are identified according to International Classification of Diseases, Tenth Revision (ICD-10) codes for the underlying cause of deaths on death certificates. Manner of death was coded according to ICD-10 classification and categorized as suicide, homicide, legal intervention, unintentional firearm discharge, undetermined or terrorism-related death (Table 1).<sup>2,3</sup> Occasionally, data sources may record a different determination on the manner of death. **Deaths relating to the death with Dignity Act (physician-assisted suicides) are not classified as suicides by Oregon law and therefore are excluded from data collection and this report.**

Table 1. Violent death by intent

<b>Intent</b>	<b>ICD-10 code</b>
Suicide	X60-X84, Y87.0
Homicide	X85-X99, Y00-Y09, Y87.1
Undetermined	Y10-Y34, Y87.2, Y89.9
Legal intervention excluding execution (Y35.5)	Y35.0-Y35.4, Y35.6-Y35.7, Y89.0
Unintentional Firearm Fatality	W32-W34, Y86 determined to be due to firearm
Terrorism-related Death	U01-U03

## *Rate Calculation*

Rates were calculated using bridged-race postcensal estimates of July 1, 2006, released by the National Center for Health Statistics (NCHS).<sup>4</sup> The age-adjusted rate was adjusted to the 2000 standard million. Because of limited death counts in some races, age groups and/or manner of death, some rates might not be statistically reliable or stable; use caution with regard to those categories with fewer than 21 deaths.

## *Data Summary*

### *Magnitude of Violent Death*

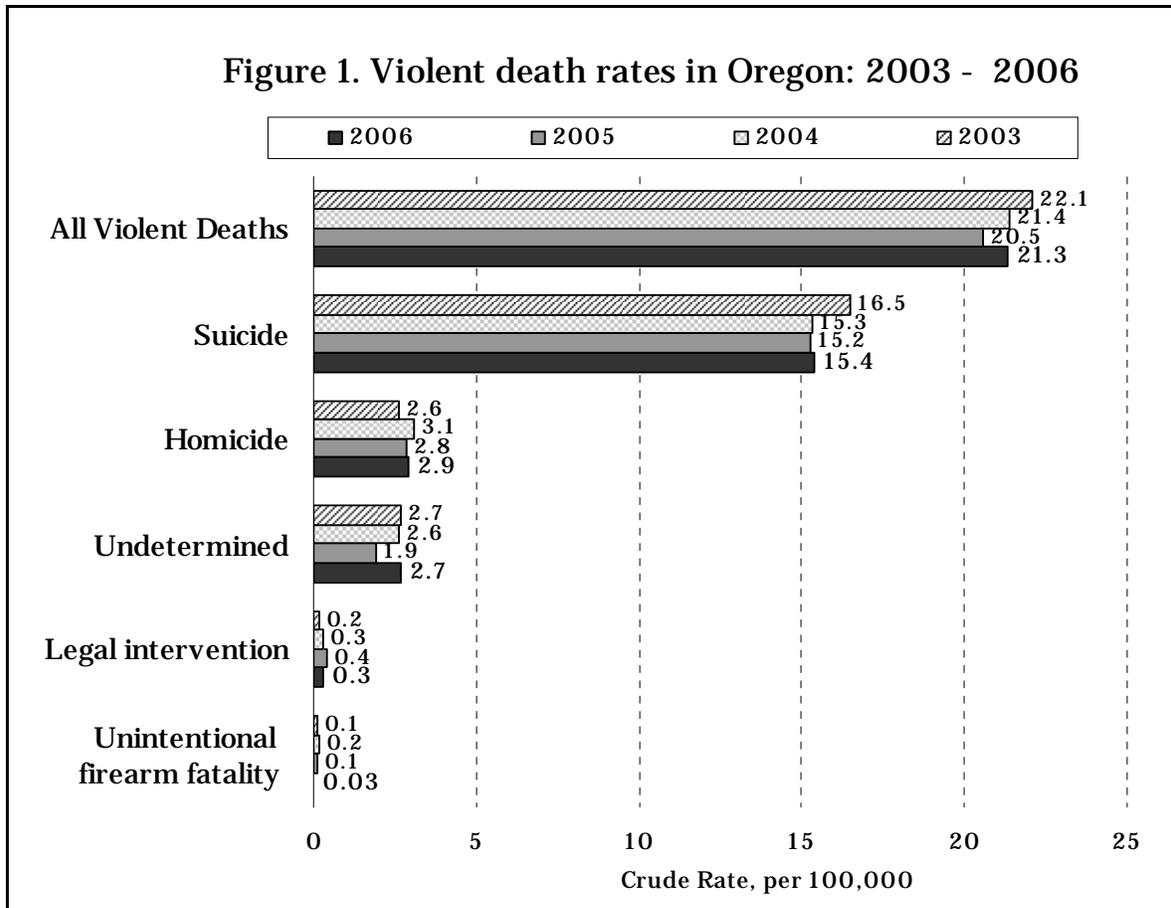
In 2006, there were 774 violent death incidents resulting in 790 deaths among Oregon residents. The violent death rate was 21.3 per 100,000 (age-adjusted rate = 20.8 per 100,000). Of 774 incidents, 761 incidents involved one death; 13 incidents involved more

than one death and those incidents resulted in a total of 19 deaths. Among the 13 incidents involving multiple deaths, 10 were homicide-suicides (Table 2).

Table 2. Number of violent death incidents and deaths, OR, 2006

<b>Type of Incident</b>	<b># Incidents</b>	<b># Deaths</b>
Unintentional Firearm Injury	1	1
<i>Shot by self</i>	<i>1</i>	<i>1</i>
<i>Unknown who inflicted</i>	<i>0</i>	<i>0</i>
Homicide	102	108
<i>Single Homicide</i>	<i>89</i>	<i>89</i>
<i>Multiple Homicides</i>	<i>3</i>	<i>7</i>
<i>Homicide-Suicide</i>	<i>10</i>	<i>12</i>
Suicide	569	569
<i>Single Suicide</i>	<i>559</i>	<i>559</i>
<i>Multiple Suicides</i>	<i>0</i>	<i>0</i>
<i>Homicide-Suicide</i>	<i>10</i>	<i>10</i>
Combined Homicide-Suicide	10	22
Legal Intervention	11	11
Undetermined	101	101
Total	774	790

Among those who died by violence, 569 died by suicide with a rate of 15.4 per 100,000; 108 died by homicide (2.9 per 100,000); 101 died by undetermined manner (2.7 per 100,000); 11 died by legal intervention (0.3 per 100,000); and one died by unintentional firearm injury (0.03 per 100,000). The number of violent deaths increased from 748 in 2005 to 790 in 2006. This is mainly due to an increase in the number of undetermined deaths, which increased from 71 to 101. Overall, the state's homicide rate and suicide rate remained approximately the same and undetermined death rate slightly increased <sup>5</sup> (Figure 1).



In 2006, violent death ranks as the second leading cause of death among Oregonians aged 15 to 34, the third leading cause of death among Oregonians under age 55 and the eighth leading cause among all Oregonians. Violent deaths accounted for approximately 35 percent of total injury deaths.

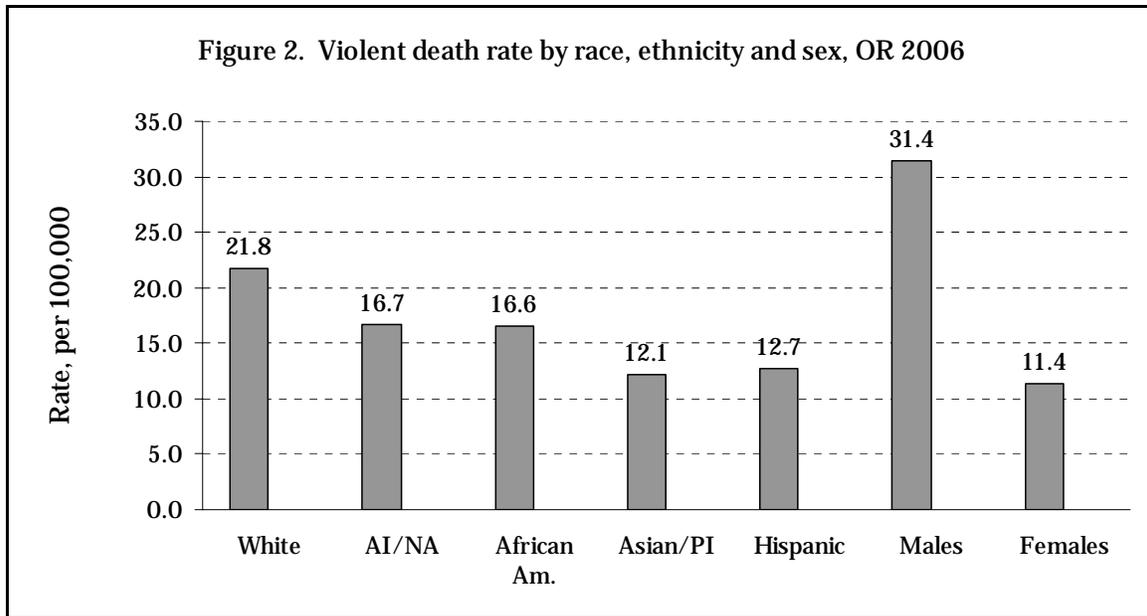
***Race, Ethnicity and Sex***

Among the violent deaths, 741 (94 percent) were white; 14 (2 percent) were African-American; 19 (2 percent) were Asian/Pacific Islander; 10 (1 percent) were American Indian/Native Alaskan; and four were other race/unspecified. Forty-eight (6 percent) were of Hispanic ethnicity. The ratio of males to females was 2.8 (Figure 2). Suicide was the predominant manner of violent death among both males and females (Table 3).

Table 3. Number, proportion & rate of violent deaths by manner & sex, OR, 2006

Manner	Sex				Total	
	Male	%	Female	%	All	%
Suicide	435	75	134	63	569	72
Homicide	75	13	33	16	108	14
Unintentional firearm fatality	1	<1	0	0	1	<1
Legal intervention	10	2	1	1	11	1
Undetermined	57	10	44	21	101	13
<b>Total</b>	<b>578</b>		<b>212</b>		<b>790</b>	
						<b>21.3</b>

\* Use rates from small numbers with caution as they generate unstable rates.



*Mechanism of Death*

Firearms were the mechanism of death in 47 percent of violent deaths. Other common mechanisms of death included poisoning (27 percent), suffocation (13 percent), sharp instruments (4 percent), and falls (3 percent) (Table 4).

Table 4. Violent deaths by mechanism, OR, 2006

Mechanism	Number	% of Total
Firearm	375	47
Poisoning	211	27
Hanging, Strangulation, Suffocation	105	13
Sharp instrument	28	4
Fall	24	3
Blunt instrument	9	1
Drowning	13	2
Personal weapons (fist, feet, hand)	9	1
Fire or Burns	1	<1
Other transport vehicle (trains, boats)	2	<1
MV, including buses, motorcycles	1	<1
Shaking (shaken baby syndrome)	3	<1
Other	3	<1
Unknown	5	1

*Place of Violent Incident*

Of 790 violent deaths, 775 (98.1 percent) occurred in Oregon. Most incidents occurred at home (Table 5).

Table 5. Location of injury by manner, OR, 2006

<b>Location Type</b>	<b>Suicide</b>		<b>Homicide</b>		<b>Undetermined</b>	
	<b>No.</b>	<b>%</b>	<b>No.</b>	<b>%</b>	<b>No.</b>	<b>%</b>
House / Apartment	434	76	78	72	81	80
Nature Area	50	9	6	6	6	6
Park / Public use area	13	2	0	0	2	2
Street / Road	14	2	4	4	7	7
Parking lot / Garage	14	2	7	6	0	0
Motel / Inn /Hotel	10	2	0	0	2	2
Jail	4	1	2	2	0	0
Highway	7	1	1	1	1	1
Supervised Resident Facilities	0	0	0	0	0	0
Hospital	1	<1	0	0	0	0
Unknown	3	1	2	2	1	1

More than half of the violent deaths occurred in five counties: Multnomah, Washington, Lane, Clackamas and Marion; each of the counties had more than 50 cases (Table 6).

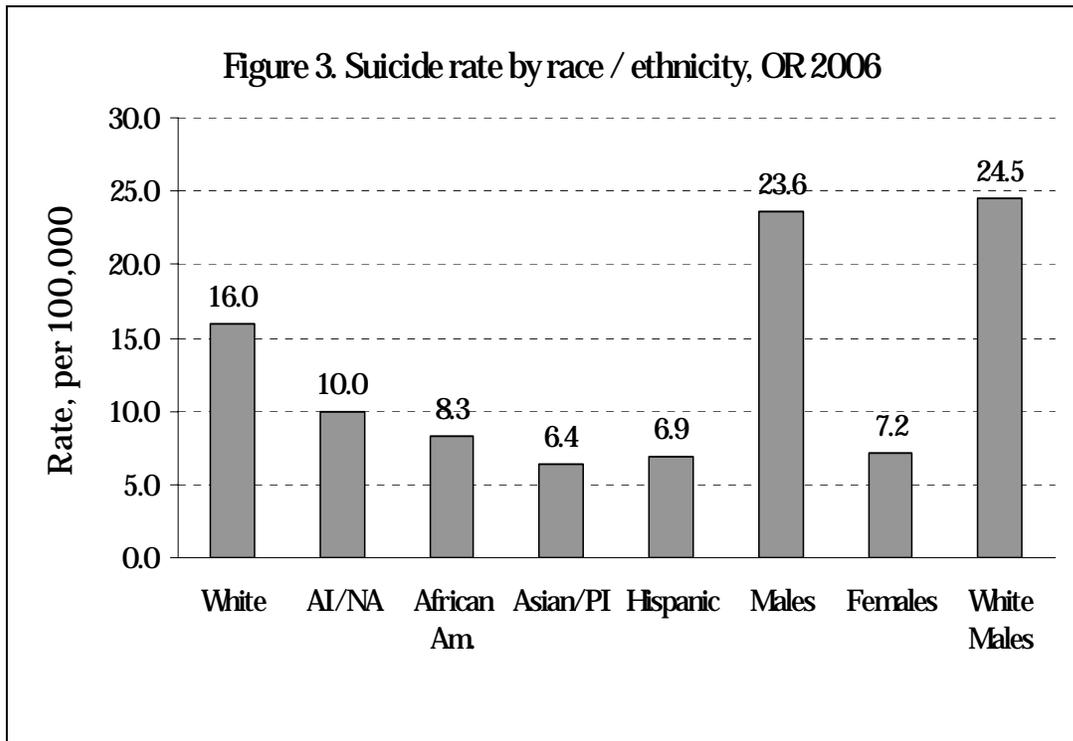
Table 6. Number and proportion of violent death by manner and county, OR, 2006

County	Violent Death Total	Suicide		Homicide		Undetermined	
		No.	%	No.	%	No.	%
Baker	2	2	100	0	0	0	0
Benton	10	10	100	0	0	0	0
Clackamas	64	45	70	10	16	9	14
Clatsop	7	3	43	1	14	3	43
Columbia	10	8	80	2	20	0	0
Coos	25	23	92	1	4	1	4
Crook	6	5	83	1	17	0	0
Curry	8	5	63	1	13	2	25
Deschutes	33	29	88	2	6	1	3
Douglas	30	26	87	3	10	1	3
Gilliam	0	0	N/A	0	N/A	0	N/A
Grant	1	1	100	0	0	0	0
Harney	2	1	50	0	0	1	50
Hood River	2	2	100	0	0	0	0
Jackson	48	35	73	5	10	8	17
Jefferson	5	2	40	1	20	2	40
Josephine	29	22	76	2	7	5	17
Klamath	20	9	45	7	35	4	20
Lake	1	1	100	0	0	0	0
Lane	86	55	64	15	17	12	14
Lincoln	15	13	87	0	0	2	13
Linn	17	13	76	1	6	2	12
Malheur	10	8	80	2	20	0	0
Marion	62	39	63	12	19	10	16
Morrow	0	0	N/A	0	N/A	0	N/A
Multnomah	162	108	67	28	17	24	15
Polk	12	9	75	0	0	3	25
Sherman	0	0	N/A	0	N/A	0	N/A
Tillamook	7	6	86	1	14	0	0
Umatilla	11	9	82	2	18	0	0
Union	7	6	86	1	14	0	0
Wallowa	1	1	100	0	0	0	0
Wasco	5	5	100	0	0	0	0
Washington	77	58	75	8	10	8	10
Wheeler	0	0	N/A	0	N/A	0	N/A
Yamhill	15	10	67	2	13	3	20
Statewide	790	569	72	108	14	101	13

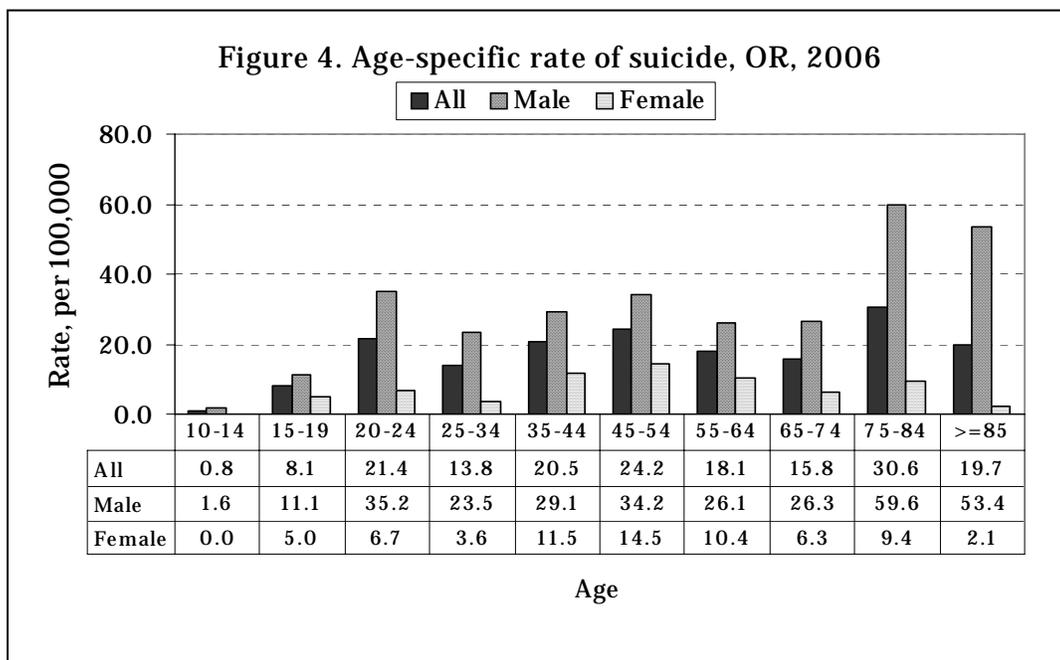
## Suicides

### Race, Ethnicity and Sex

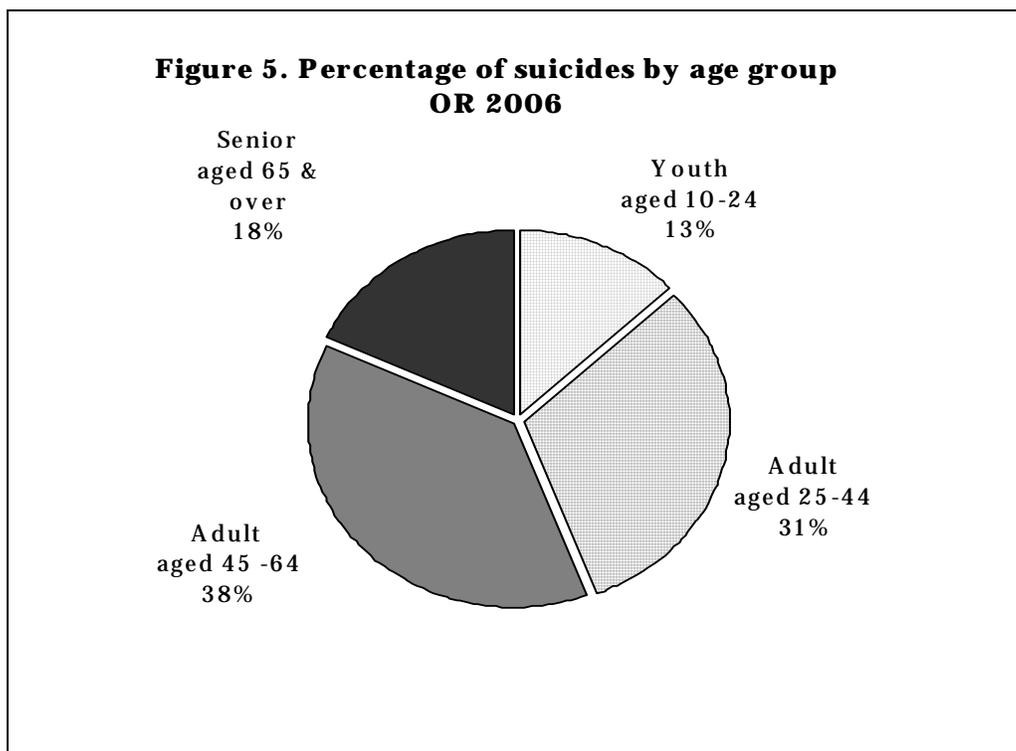
Nearly 72 percent of violent deaths were completed suicides. Of 569 suicides, 435 (76 percent) occurred among males and 134 (24 percent) occurred among females; 545 (96 percent) were white; 10 were Asian/Pacific Islander; seven were African-American and two were American Indian/Native Alaskan. Twenty-six (5 percent) were of Hispanic ethnicity. Males were 3.3 times more likely to die by suicide than females. The suicide rate among males was 23.6 per 100,000 and the rate among females was 7.2 per 100,000. The suicide rate overall was 15.4 per 100,000. Rates were highest among white males (Figure 3).



Suicide rates increased with age. The age-specific rate of suicide among males rose sharply after age 15 and reached the first peak between the ages of 20 and 24; the rate decreased slightly at the ages of 25-34, then rose again and reached the second peak between the ages of 45-54. The rates rose dramatically after age 65 years. The highest suicide rate among females occurred among women aged 45-54 (Figure 4).



The majority of suicides (69 percent) occurred among those aged 25-64 (Figure 5).

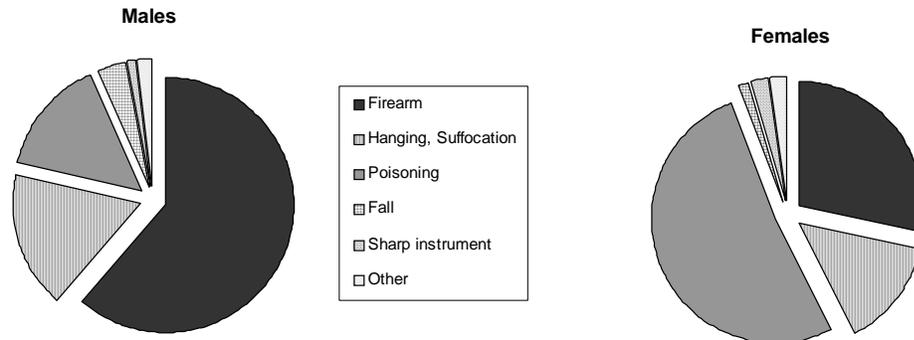


*Mechanism of Death*

Firearms, suffocation (hanging/strangulation) and poisoning were the most frequently observed mechanisms of suicide deaths. Differences in mechanisms of death were

observed by sex of the victim. Firearms were involved in as many as 61 percent of male deaths compared with 28 percent of female deaths. Suffocation was identified as the mechanism of death among 17 percent of male deaths and 14 percent of female deaths. Poisoning was the mechanism of death among only 15 percent of males but 51 percent of the deaths among females (Figure 6).

**Figure 6. Mechanism of suicide by sex, OR, 2006**



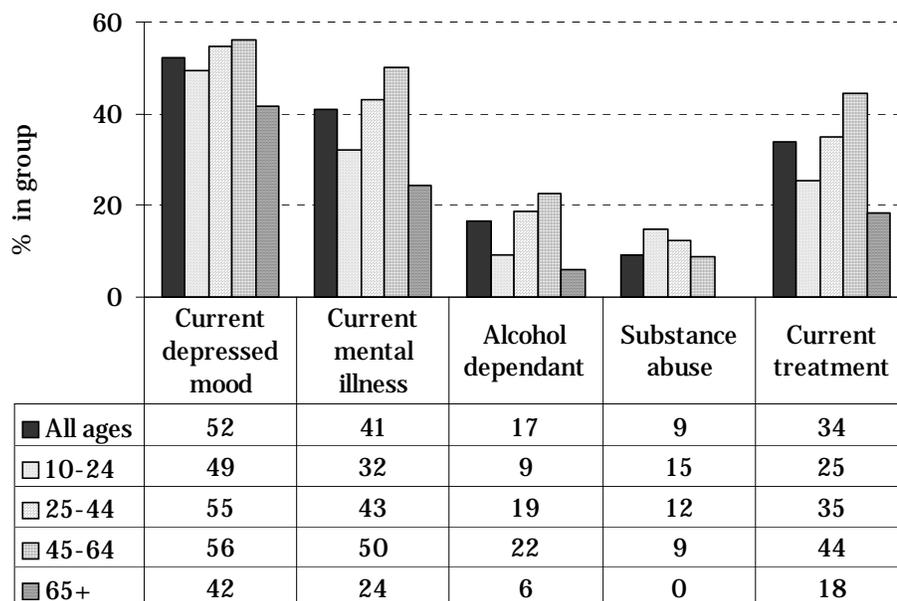
Of 305 firearm suicides, 204 (67 percent) involved a handgun, 45 (15 percent) involved a rifle and 31 (10 percent) involved a shotgun. Among 133 suicide deaths caused by poisoning, 87 cases (65 percent) involved only one substance. The substances most frequently reported were prescription medications or over-the-counter drugs, which accounted for 63 percent (N=55). Another 22 (25 percent) suicide deaths involved carbon monoxide (automobile exhaust) or other vapor. Narcotics and antidepressants were respectively reported in 34 percent and 10 percent of the 87 deaths. Forty-six of 133 cases (35 percent) involved more than one substance; narcotics and antidepressants were respectively reported in 41 percent and 35 percent of those deaths.

### Circumstances

Analysis of reports concerning circumstances surrounding suicides showed that regardless of age, more than 50 percent of people who died by suicide were reported to have experienced a recent depressed mood. About 40 percent were reported to have a mental illness. But only one third were being treated for mental health problem (Figure 7).

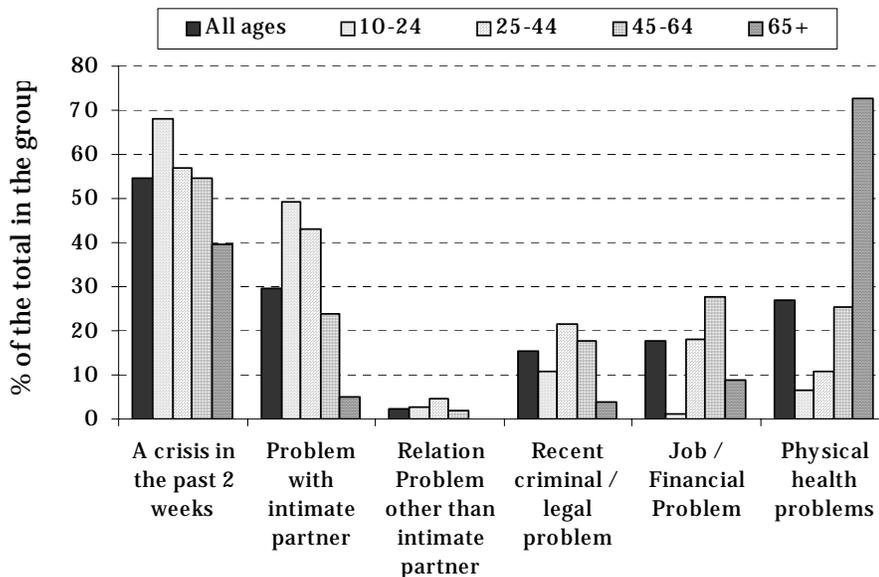
Among suicide victims with mental disorders (N=232), the most frequently reported mental health problems were depression/dysthymia (86 percent), bipolar disorder (12 percent), and anxiety disorder (13 percent).

**Figure 7. Behavioral health status among suicide victims by age group, OR, 2006**



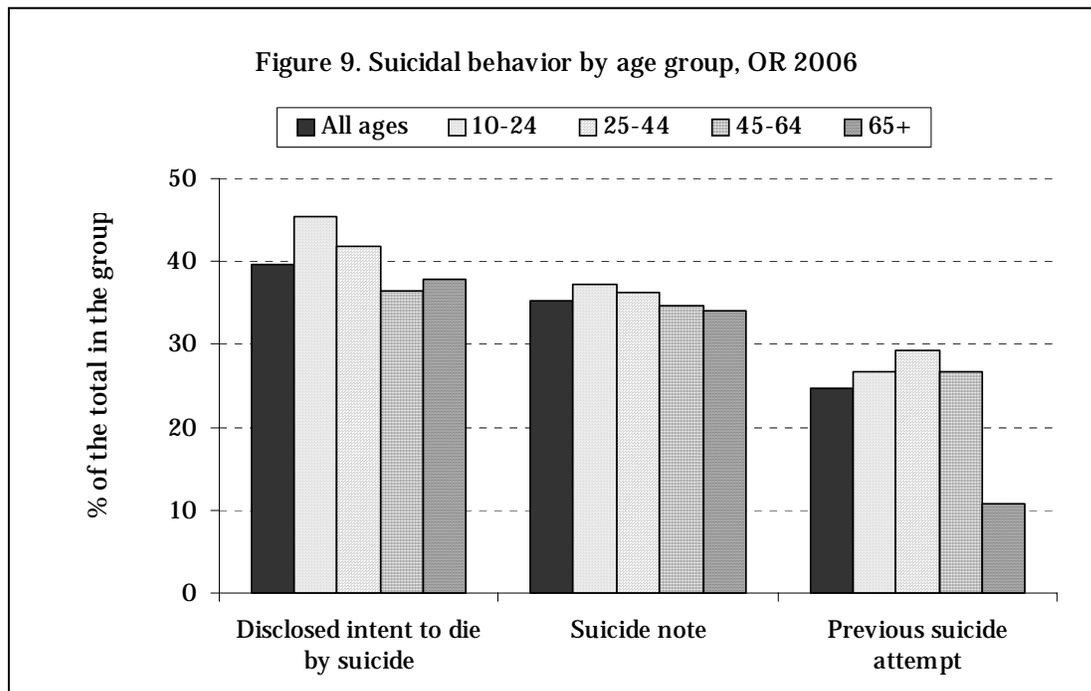
Approximately half of suicide victims experienced one or more crises within two weeks of death (Figure 8).

**Figure 8. Factors associated with suicide by age group, OR 2006**



Older adults who died by suicide were observed to have numerous health conditions and health-related problems. Among 103 adults aged 65 and older who died by suicide, 72 percent had declining health, 42 percent had a loss of autonomy or independence, and 45 percent lived alone. Sixty-seven suicide victims (65 percent) were documented to have at least one medical condition. Nineteen percent had visited a physician within 30 days. The most frequently reported physical illnesses were heart disease (21 percent), chronic pain (20 percent), cancer (18 percent), chronic respiratory disease (9 percent) and stroke (7 percent). Thirty-seven (55 percent) suicide victims with physical illnesses were reported to have depressed mood. However, only 21 (18 percent) were diagnosed with mental disorders (19 were diagnosed with depression/dysthymia), and only 16 (24 percent) were reported to be receiving treatment for their mental illness.

Approximately 40% of people who died by suicide had disclosed suicide threats or ideation prior to their deaths (Figure 9).



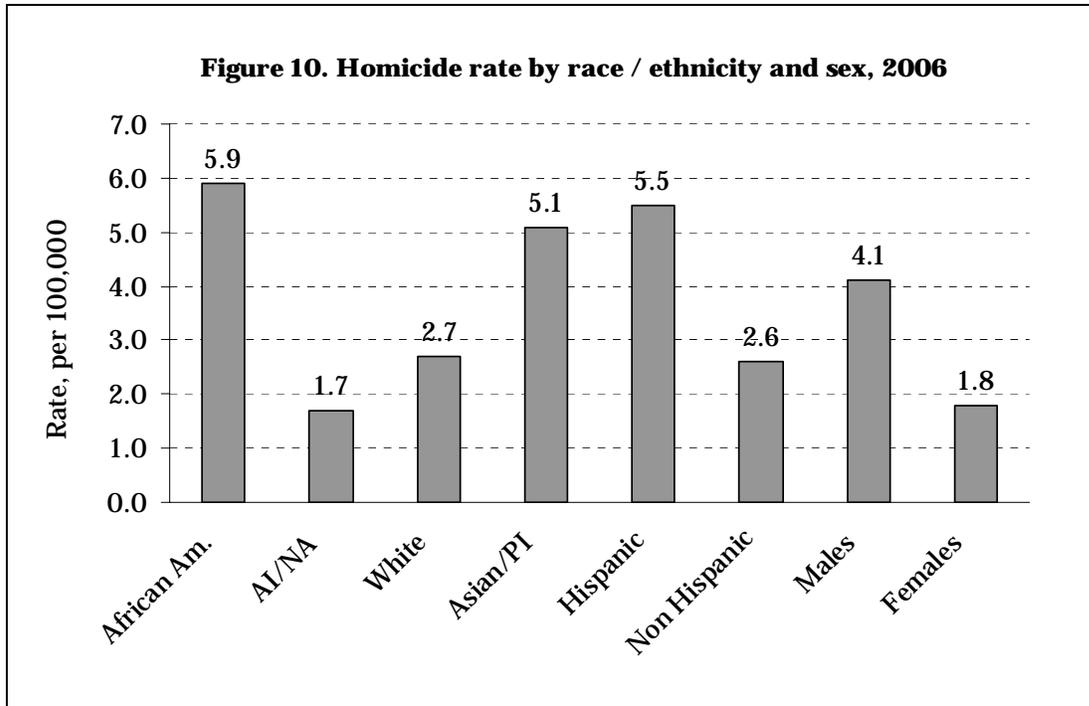
**Suicides among Veterans**

In 2006, 142 (25 percent) suicides occurred among veterans; 135 of them (95 percent) were male. Compared with the previous year, suicides among older veterans aged 65 and over were slightly reduced from 76 in 2005 to 59 in 2006; suicides among young veterans under age of 65 increased in 2006 (78 in 2005 vs. 83 in 2006).

## Homicides

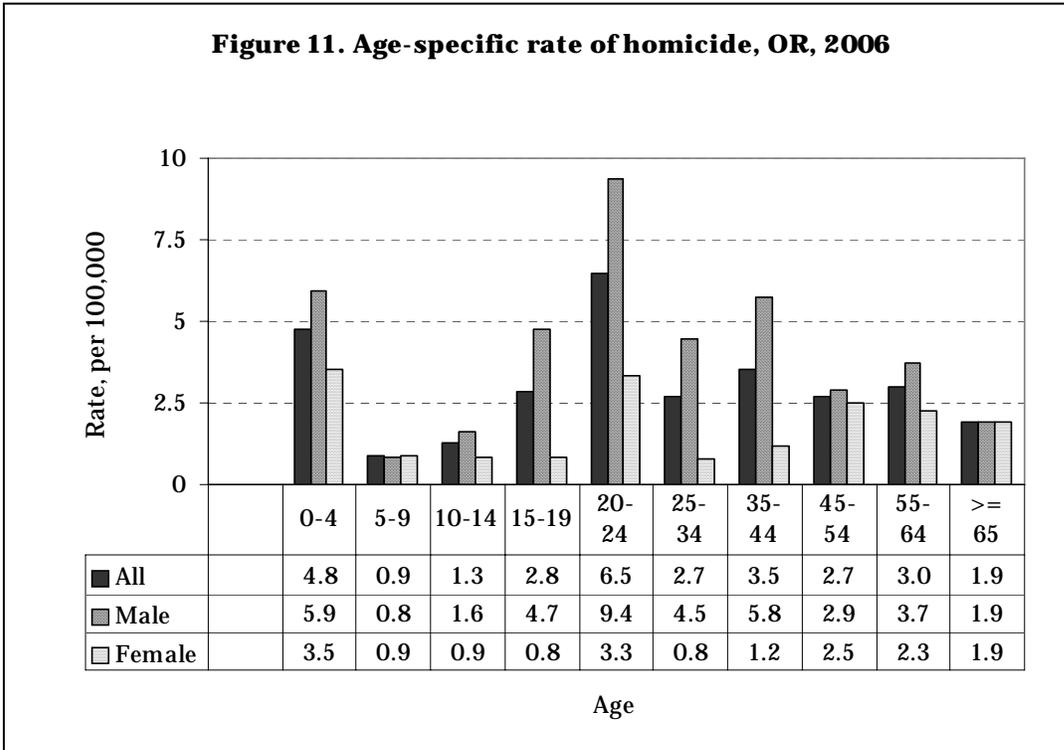
### Race, Ethnicity and Sex

Homicide accounted for 14 percent (108) of violent deaths in 2006. The homicide rate among males is more than two times the rate of homicide among females. The homicide rates among different races were not significantly different. The homicide rate was higher among people of Hispanic ethnicity than among people without Hispanic ethnicity (Figure 10).



The distribution of age-specific rates of homicide is 'u' shaped. The first peak occurred among young children (infants) and the second peak occurred among males aged 20-24 (Figure 11). Of the 108 homicides, 15 (14 percent) were children aged less than 15 years; 23 (21 percent) were youth aged 15-24; 32 (30 percent) were young adults aged 25-44; 28 (26 percent) were adults aged 45-64 and nine (8 percent) were older adults aged 65 years and over.

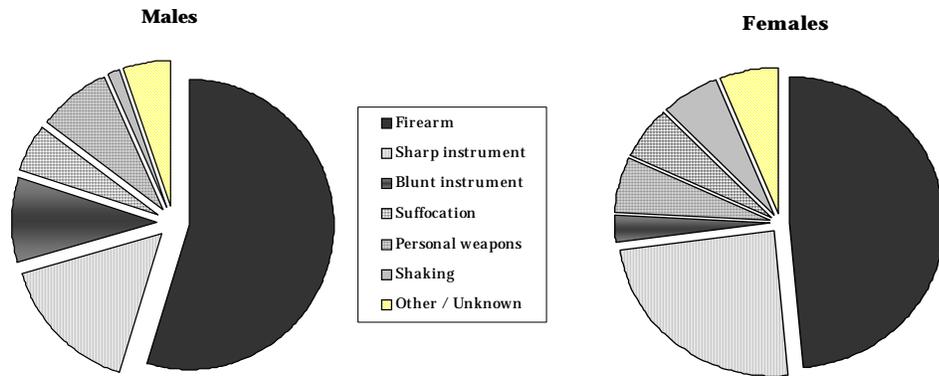
**Figure 11. Age-specific rate of homicide, OR, 2006**



***Mechanism of Death***

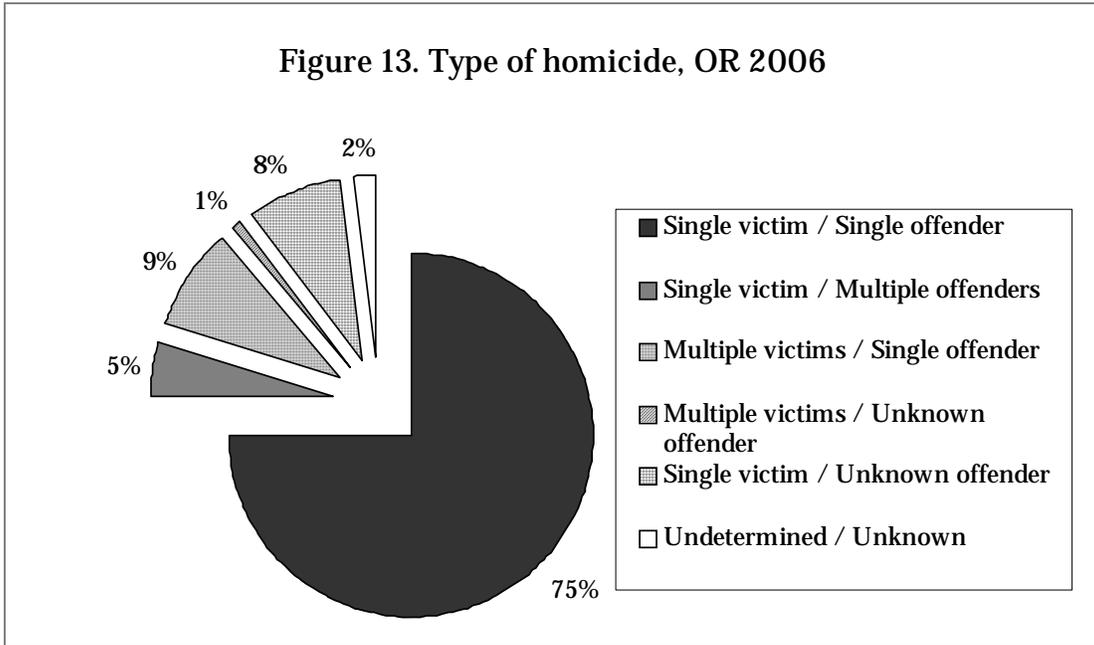
Firearms were involved in 55 percent of male homicides and 48 percent of female homicides. Sharp instruments were the mechanism of death in 16 percent of male and 24 percent of female homicides. Blunt instruments and personal weapons (fist, feet and hand) accounted for 17 percent of male and 9 percent of female homicides (Figure 12).

**Figure 12. Mechanism of homicide by sex, OR, 2006**

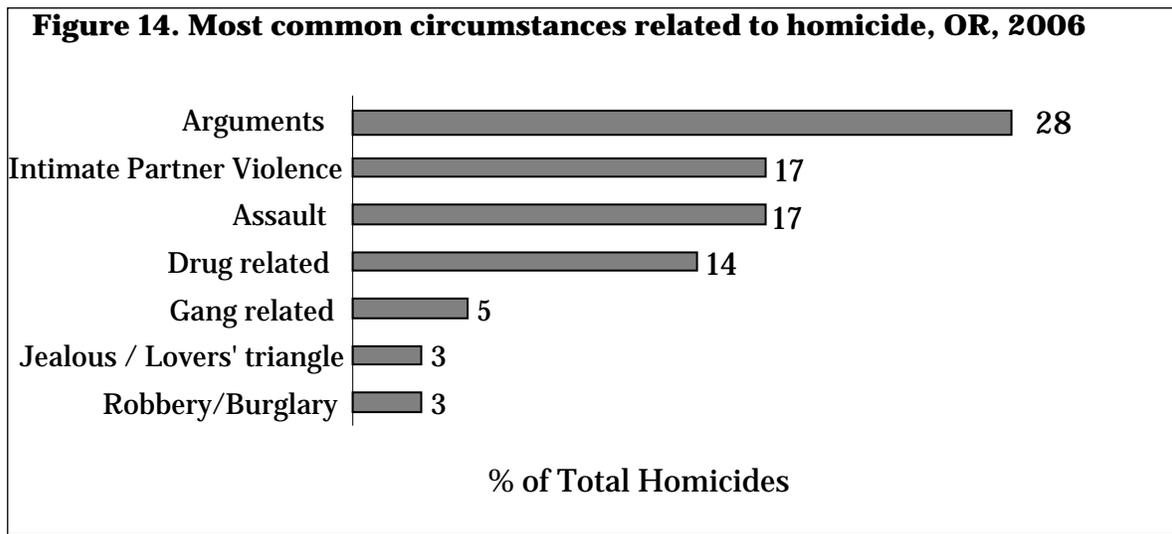


Circumstances

In each incident, a single suspect killed most homicide victims (75 percent); multiple suspects were involved in the deaths of 5 percent of the victims; and a single suspect killed multiple victims in 9 percent of the cases (Figure 13).



The most common circumstances surrounding homicides are shown in Figure 14.



*Homicide Suspect Information*

Based on available information on suspects, males aged 15-29 were more likely to be involved in homicide incidents. The persons with Hispanic ethnicity were represented disproportionately among suspects (Table 7).

Table 7. Demographics of suspects, OR, 2006

Sex	Single Suspect		Multiple Suspects		OR Population
	No.	%	No.	%	%
Race/Ethnicity					
Male	72	86	9	90	49.7
Female	11	13	1	10	50.3
Unknown	1	1	0	0	
White	51	61	4	40	91.9
African Am.	4	5	0	0	2.3
Asian	0	0	0	0	4.2
Am. Indian / Native	1	1	1	10	1.6
Unknown	27	32	5	50	
Hispanic	13	15	4	40	10.2
Hispanic, Unknown	25	30	3	30	
Age Group					
<10	1	1	0	0	12.4
10-14	1	1	0	0	6.5
15-19	12	14	0	0	6.7
20-24	11	13	2	20	6.7
25-29	14	17	1	10	7
30-34	6	7	2	20	7
35-44	10	12	3	30	13.9
45-54	12	14	0	0	15.1
55-64	9	11	0	0	11.8
≥ 65	5	6	0	0	12.9
Age Range (yr)	5-91		22-39		
Median Age (yr)	32		31		
Unknown	2		2		

Most homicide suspects knew their victims (Table 8).

Table 8. Relationship between victim and suspect, OR 2006

Type of Relationship	Single Suspect		Multiple Suspects	
	No.	%	No.	%
Victim to suspect				
Spouse or ex-spouse	14	17	0	0
Parent	1	1	0	0
Child	5	6	0	0
Other family member	9	11	0	0
Girlfriend / Boyfriend or Ex	3	4	0	0
Acquaintance / Friend	35	43	5	50
Stranger	13	16	3	30
Other	4	5	2	20

*Intimate Partner Violence (IPV) - related Homicide*

A total of 25 IPV-related homicides occurred among Oregon residents in 2006. These deaths occurred among perpetrators (primary aggressors) of IPV, victims of IPV, and relatives of an IPV victim. The relationship of victim and suspect is shown in Table 9. A total of 19 IPV-related homicides were committed by an intimate partner and there were differences observed by sex in the victim-suspect relationship. An intimate partner killed 42 percent of female homicide victims while only three percent of male homicide victims were killed by an intimate partner. Of 25 IPV-related homicide victims, 20 were white, three were Asian, one was African American and one was American Indian. Three were of Hispanic ethnicity. The age range was 12 to 85 years with an average age of 43.

Table 9. Relationship of victim and suspect among IPV-related homicides by sex

Homicide victim was killed by	Female	Male	Total
Current spouse	11	2	13
Ex-spouse	0	0	0
Current boy/girl friend	2	2	4
Ex-boy/girl friend	1	0	1
Couple (same sex)	0	1	1
<i>Total homicides killed by an intimate partner</i>	<i>14</i>	<i>5</i>	<i>19</i>
Partner's ex-partner	0	1	1
Ex-partner's or lover's current partner	0	2	2
Police officers	0	0	0
Other	1	2	3
<i>Total homicides killed by someone other than a partner</i>	<i>1</i>	<i>5</i>	<i>6</i>
Homicides related to IPV	15	10	25

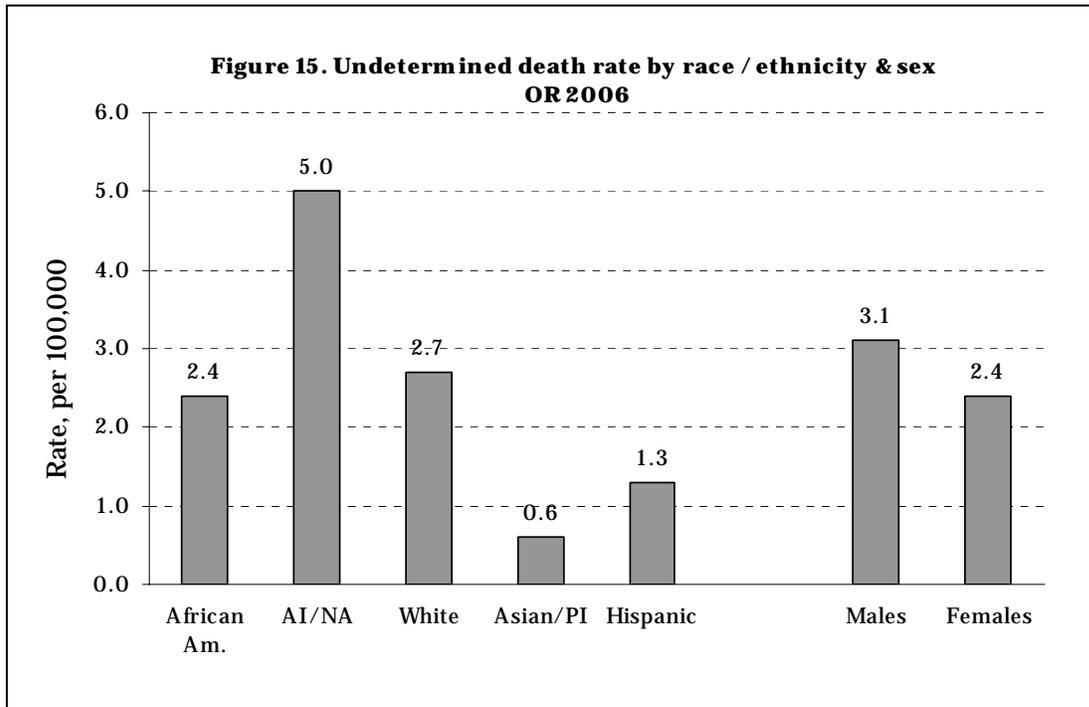
*Child Deaths Due to Physical Abuse*<sup>6</sup>

Among 22 children who died by homicide, 10 children (45%) were killed by a parent (n=6), a boyfriend /girlfriend of his/her parent (n=2), a foster parent (n=1) and other caregiver (n=1). Three of them died from shaking baby syndrome. Among those 10 child physical abuse deaths, six were male, four were female and eight were White. The children' ages were from less than one year to 11 years with a median age of one year.

## Undetermined Deaths

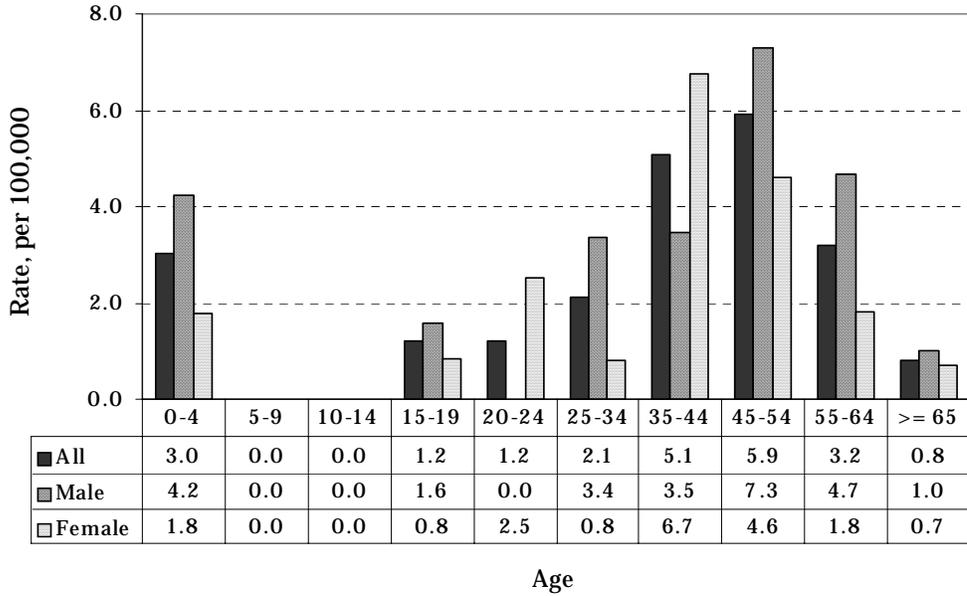
### *Race, Ethnicity and Sex*

Thirteen percent of violent deaths were classified as undetermined manner of death in 2006. Of the 101 undetermined deaths, 57 (56 percent) were male and 44 (44 percent) were female; 93 (92 percent) were white; three (3 percent) were American Indian/Native Alaskan; two (2 percent) were African-American. Five (5 percent) were of Hispanic ethnicity. The undetermined death rate was 2.7 per 100,000 overall. Figure 15 shows the undetermined death rate by race, ethnicity and sex.



Adults aged 45-54 had the highest rate of undetermined death (Figure 16). Infant deaths accounted for six percent (N=6) of the deaths and adults aged 20-64 accounted for 86 percent (N=87). It should be noted undetermined manner among adults means investigators were not able to determine if the person died by unintentional injury (accidental overdose), homicide or suicide.

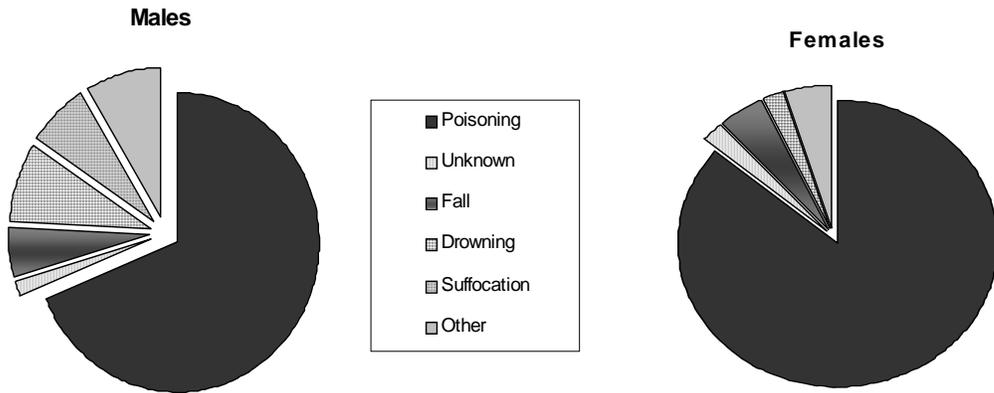
**Figure 16. Age-specific rate of undetermined death, OR, 2006**



***Mechanism of Death***

Poisoning was the mechanism of death in 69 percent of the undetermined deaths among males and 86 percent among females (Figure 17). The majority of undetermined infant deaths occurred due to suffocation (six of seven).

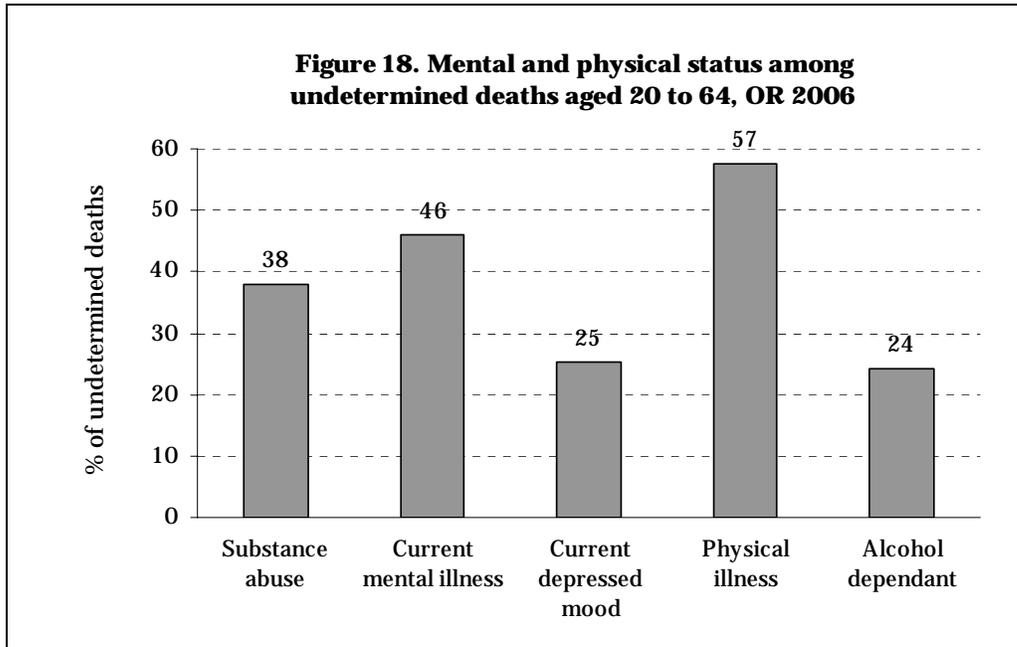
**Figure 17. Mechanism of undetermined death by sex, OR, 2006**



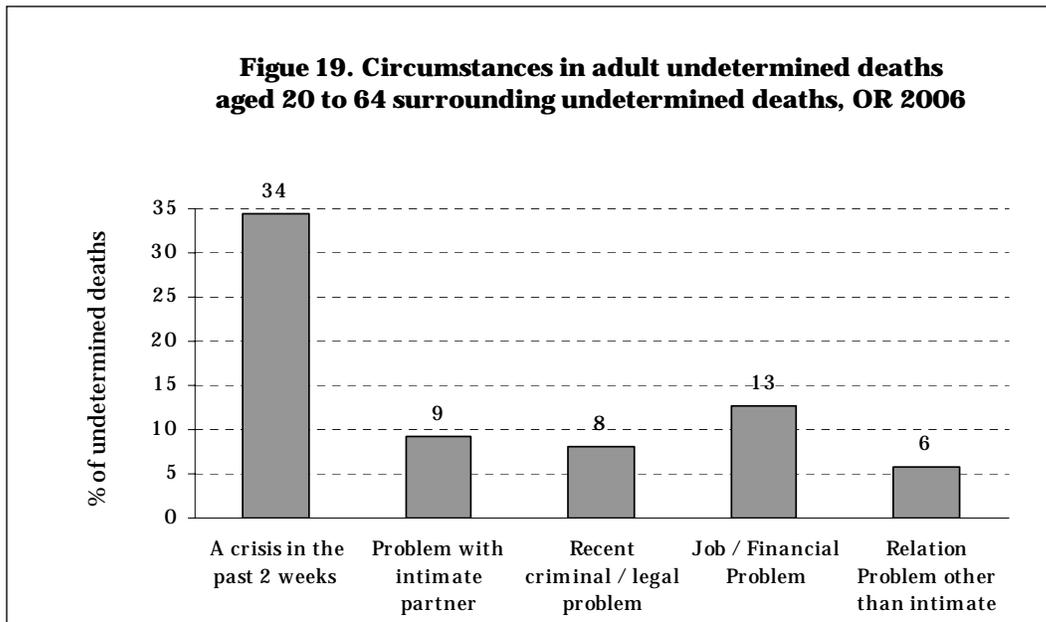
In 77 undetermined poisoning deaths, 60 cases (78 percent) involved one substance; narcotics were predominantly reported (N=40). Seventeen in 77 cases (22 percent) involved more than one substance; narcotics were involved in 16 of those deaths and antidepressants in five. Methadone was reported in 26 victims.

Circumstances

Analysis of undetermined death circumstances among adults aged 20 to 64 demonstrates that nearly 40 percent of the victims abused substances; 46 percent of them had a mental illness; 25 percent experienced a recent depressed mood; 57 percent had a physical illness; and 24 percent were alcohol dependent (Figure 18).



Circumstances in undetermined deaths are illustrated in Figure 19 below.



## *Discussion*

Data pertaining to the characteristics of victims and suspects, main circumstances surrounding violent incidents, and relationships between victims and suspects are relatively consistent with data from previous years.

Oregon suicide rates remain high. Frequently reported circumstances in the lives of suicide victims included mental and behavior health problems, interpersonal relationship problems, and current criminal/legal problems among young people, and mental and physical health problems among older adults. These results emphasize the potential and need for screening and assessment referrals for youth in juvenile justice and for young adults in corrections, as well as screening, assessment and treatment in primary care settings for older adults.

The data indicate there is a problem of diagnosis and treatment for mental and behavioral health problem among suicide victims. More than 50 percent of people who died by suicide were reported to have experienced a recent depressed mood. But only one third were being treated for mental health problem. Addressing mental and behavioral health is essential to preventing suicide. Integrating primary care and mental and behavioral health care would increase diagnosis and treatment of mental and behavioral health care problems, particularly among youth and older adults. Those who died by suicide appear to have had high rates of known but untreated mental and behavioral health problems. Follow-up and outreach activities directed toward persons who fail to engage in care could improve the rate of treatment.

As this report observes, the majority of deaths due to suicide (69%) occur among adults aged 25-64, making it clear the state needs to develop and implement a prevention plan across the life span.

Overall suicide deaths among veterans were less in 2006 than in 2005. However, this reduction is only seen among elder veterans. Considering the suicide rate was significantly higher among young male veterans than among young male non-veterans and well-known stressors that exist in the lives of military personnel as they are discharged from active duty to civilian status, it is necessary to develop suicide prevention efforts that target veterans.

More than 100 Oregonians died by homicide in 2006. Twenty homicide deaths occurred among children under age of 18 years. Ten of those children died as a result of physical abuse. The number of child abuse deaths was increased from seven in 2005 to 10 in 2006, and this number was the highest since 2003. Prevention strategies of child maltreatment should be reviewed and considered by the state and local communities.

## *Recommendations*

- Train health care providers to screen and treat depression, and to screen and refer individuals at risk for suicide for appropriate care.<sup>1</sup>
- Build systems to provide follow-up to patients with a positive screening test for depression and suicide risk.<sup>1</sup>
- Implement community-based suicide-prevention activities that link at-risk populations with social services, health care, and opportunities for socialization.
- Develop a prevention plan to reduce suicide among Oregonians across the life span.
- Develop and support activities to reduce suicide among Oregon veterans.
- Obtain data on Oregonians who served in the regular Army, Army Reserves, Oregon National Guard and other military branches. Use these data and the suicide data to conduct epidemiological studies to better understand suicide among veterans and potentially contribute to prevention.
- Study and produce reports on five years of aggregated data on intimate partner violence homicide, homicide, and child abuse.
- Review with partners prevention strategies for child abuse deaths.

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## *Glossary*

**Age-adjusted mortality rate:** A mortality rate statistically modified to eliminate the effect of different age distributions in the different populations.

**Age-specific mortality rate:** A mortality rate limited to a particular age group. The numerator is the number of deaths in that age group; the denominator is the population in that age group.

**Blunt instrument:** A mechanism of death resulting from being struck by or crushed by blunt instruments such as clubs and bats.

**Child physical abuse:** It is defined as a parent or a caregiver intentionally uses physical force against a child that results in, or has the potential to result in, physical injury.

**Crude mortality rate:** The mortality rate from all causes of death for a population. It is calculated by dividing the number of deaths in a population in a period by resident population.

**Drowning:** A mechanism of death resulting from submersion in water or other liquid.

**Falls:** A mechanism of death resulting from a fall, push or jump from a high place.

**Firearm:** A mechanism of death resulting from a penetrating force injury by a bullet or other projectile shot from a powder-charged gun, including handguns, shotguns, hunting rifles, and military firearms.

**Homicide:** A manner of death resulting from the intentional use of force or power, threatened or actual, against another person, group or community. A preponderance of evidence must indicate that the use of force was intentional.

**Incident:** One or more deaths committed by a person or group of persons acting at the same time and place.

**Legal intervention:** A death when the decedent was killed by a police officer or other peace officer (persons with specified legal authority to use deadly force), including military police, acting in the line of duty.

**Manner of death and cause (or mechanism) of death matrix:** Injury deaths are classified by the manner and cause of death. Example: Poisoning can be the mechanism of death in all manners of death including homicide, suicide, unintentional, and undetermined.

**Motor vehicle:** Deaths involving any motorized vehicle.

**Personal weapons:** Deaths resulting from beating by using personal fists, feet, or hands.

**Poisoning:** A mechanism of death resulting from intentional or unintentional ingestion of a lethal amount of drugs, toxins, or chemical substances.

**Rate:** An expression of the frequency with which an event occurs in a defined population.

**Reliability of rates:** Some rates in this report are based on a small number of deaths. Chance variation is a common problem when the numbers being used to calculate rates are extremely small. From year to year, large swings can occur in rates, which do not reflect real changes. The rates based on small numbers (less than 20) may be unstable due to random chance factors, and should be used with caution.

**Sharp instrument:** A mechanism of death resulting from a cut and/or pierce from instruments such as knives, razors, chisels, or broken glass.

**Suffocation:** A mechanism of death resulting from suffocation such as hanging, strangulation.

**Suicide:** A manner of death resulting from the intentional use of force against oneself. A preponderance of evidence should indicate that the use of force was intentional.

**Suspects:** People who are suspected of having killed another person in an incident, whether intentionally or unintentionally. Persons who died in an incident who also have killed someone else are considered both a victim and a suspect.

**Terrorism-related death:** Homicide or suicide deaths that result from events that are labeled by the Federal Bureau of Investigation as acts of terrorism. Terrorism is a mechanism of death rather than a manner of death. The manner of death is either homicide or suicide. Terrorism-related deaths include ICD-10 codes U01 and U03.

**Undetermined manner of death:** A death resulting from the use of force or power against oneself or another person for which the evidence indicating one manner of death is no more compelling than the evidence indicating another manner of death.

**Unintentional firearm death:** A death resulting from a penetrating injury or gunshot wound from a weapon that uses a powder charge to fire a projectile when there was a preponderance of evidence that the shooting was not intentionally directed at the victim.