Oregon Health Authority

Public Health Division

Injury Prevention and Epidemiology

Suicide, Suicide Attempts, and Ideation among Adolescents in Oregon

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www.oregon.gov/DHS/ph/ipe/index.shtml

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EXECUTIVE SUMMARY

Suicide risk begins early in the course of life and increases in the teen years. The Oregon Injury and Violence Prevention Program uses a public health approach to suicide prevention—an approach that addresses prevention primarily at the community level. The first step in a public health approach to suicide prevention involves examining data to assess occurrences of suicide deaths, attempts, and ideation. Data provide information that helps to:

- Estimate the frequency of suicidal behavior among Oregon adolescents;
- Monitor possible increases, decreases and trends;
- Monitor factors associated with suicidal behavior;
- Increase public awareness; and
- Develop programs that promote health and reduce suicide risk.

Data in this report are collected from all public health data systems that contain Oregon-specific data to present a broad picture of suicidal behavior among youth in Oregon. Comparisons between data sources cannot be made because data are collected in different ways, in different time frames, and definitions and limitations of the data vary from source to source.

Suicide Deaths – from the Oregon Violent Death Reporting System

- On average 12 Oregon adolescents under 18 die by suicide each year.
- Since 2002, the rate of suicide among youth in Oregon decreased to and remained at about the same level as the US rate.
- Between 2003 and 2010, 50% of females and 32% of males who died from suicide were reported to have a diagnosed mental health problem. Interpersonal relationship problems and school problems are common factors associated with suicide.
- Between 2003 and 2010, 29% of males and 41% of females who died from suicide had disclosed their intent to die by suicide. 12% of males and 27% of females who died from suicide had a history of at least one suicide attempt.

Suicide Attempts[1] – from the Adolescent Suicide Attempt Data System, 2010

- In 2010, there were 202 suicide attempts among youth under 18 years of age
- 66% of suicide attempts were among female youth.
- The majority of suicide attempts occurred among teens 15 and older.
- Pharmaceutical drugs were the most common means of a suicide attempt.
- Most suicide attempts occurred in the youth's own home.
- About 40% of youth had told someone else about their plans to attempt suicide.
- Nearly 80% of youth who attempted suicide suffered at least one psychological condition.
- 10% of youth who attempted suicide had a history of substance abuse.
- Family discord was the most common factor associated with suicide attempts, affecting 45% of youth who attempted suicide.
- Approximately 47% of youth (56% of boys and 37% of girls) who attempted suicide were admitted to hospitals as inpatients as a result of their suicide attempt.

Suicidal Ideation – from the Oregon Healthy Teen Survey, 2009

In 2009, 16% of female and 10.8% of male eleventh graders in Oregon reported that they had seriously considered suicide in the previous twelve months. Students were more likely to consider suicide if they had experienced depressed mood for two weeks in a row, been victims of violence in the past and/or health risk behaviors.

Recommendations

Suicide is a serious and preventable public health problem. To prevent suicide and suicide attempts and reduce the burden of suicide in Oregon, it is necessary that schools, communities, individuals, government agencies, hospitals and other health care providers act together. Important steps include:

[1] In this report, suicide attempt is defined as a non-fatal self-directed potentially injurious behavior with intent to die as a result of the behavior. It includes a person who has intent to die and has injured self, or has taken steps to injure self but is stopped by another person or self prior to fatal injury, or has a specific plan to carry out. An act where a person has thoughts of suicide only or when a person has injured self but has no intent to die aren't considered a suicide attempt in this report.

Schools

- Implement comprehensive prevention programs
- Establish protocols for all staff
- Train all staff in awareness and intervention
- Educate students about signs of suicide risk and how to get help
- Reduce harassment and bullying
- Establish links with community resources
- Identify students who need mental and behavioral health services
- Help students and families access available resources

Communities

- Enhance crisis services
- Establish and maintain crisis response teams
- Support suicide survivors
- Eliminate discrimination against people with behavioral health problems

Individuals

- Support efforts to reduce access to lethal means of self-harm
- Get involved in the local community in suicide prevention efforts
- Recognize and respond appropriately to troubled youth that vocalize plans for suicide

Increase awareness among parents about suicide risk factors and the need to restrict means for at-risk youth

The Health Care Community

- Improve follow-up care and implement outreach to suicide attempters
- Refer attempters for follow-up care; Oregon statute requires that all youth presenting to a hospital following a suicide attempt must be referred for follow-up care
- Increase hospital compliance with state-mandated attempt reporting to ASADs
- Improve access to affordable behavioral health care
- Reporting facilities (hospitals) should adhere to the reporting protocol as detailed by the Oregon Health Authority (OHA) for the Adolescent Suicide Attempt Data System to improve the validity and reliability of data; accurate, timely, and reliable information leads to improved outcomes

INTRODUCTION

The risk of suicide begins early in the course of life. Data in recent years have shown that youth as young as 5 years of age are vulnerable to suicidal behavior. The Oregon Healthy Teen survey in 2009 showed 18.2% of 8th grade students and 13.5% of 11th grade students had seriously considered about attempting suicide, and about 8% of 8th grade students and 6% of 11th grade students had attempted suicide during the past 12 months. Suicide claims the lives of an average of 12 youth under the age of 18 each year in Oregon. Suicide is the second-leading cause of death among 15-24 year old Oregonians.

The aims of the report are:

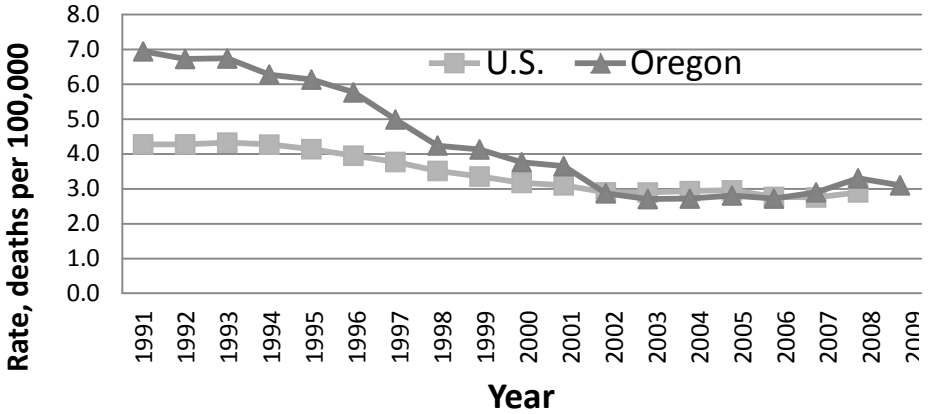
- Describe the frequency of suicides, suicide attempts and suicide ideation among Oregon adolescents and report increases, decreases and trends;
- Identify factors associated with suicide and suicide attempts among adolescents in Oregon;
- Increase public awareness; and
- Provide data to guide prevention and policy development

SUICIDE DEATHS

Data in this section of the report are from the Oregon Violent Death Reporting System (ORVDRS). ORVDRS was established in 2003 through a grant from the Centers for Disease Control and Prevention. This data source collects data from police, medical examiners, and death certificates on all suicides in Oregon.

The suicide rate among adolescents in Oregon has decreased approximately 50 percent compared to the rate in the early 1990s. Since 2002, the state rate decreased to and remained at about the same level as the US rate, a trend which continued through 2007. However, the rate started rising again in 2008 (Figure 1). National suicide mortality data for 2010 were not available at the time of this report.

Figure 1. Three year moving average of suicide rates among youth ages 10-17



Source: CDC's WISQARS and Oregon Violent Death Reporting System

The number of adolescent suicides varies from year to year. On average, 12 Oregon adolescents under 18 die by suicide each year. Most suicides occur among males and ages 15 and older (Table 1).

Table 1. Adolescent suicides by year, sex and age group, Oregon

Year	Sex		Age group		
	Male	Female	< 15	15-17	<18
2011*	13	4	8	9	17
2010	6	0	0	6	6
2009	7	7	5	9	14
2008	13	4	2	15	17
2007	5	4	1	7	9
2006	7	1	2	7	9
2005	12	2	3	11	14
2004	7	3	2	8	10
2003	7	1	0	8	8
2002	10	4	3	11	14
2001	10	2	4	8	12
2000	12	5	5	12	17
Average, per year	9	3	3	8	12

*** Preliminary data.**

Source: Oregon Violent Death Reporting System

The most common mechanisms of death are firearm and hanging (Table 2).

Table 2. Mechanism of adolescent suicide by year and age group, Oregon, 2003-2010

Mechanism	Sex		Age group		
	Male	Female	< 15	15-17	<18
Firearm	30	6	5	31	36
Suffocation/Hanging	26	12	10	28	38
Poisoning	5	3	0	8	8
All transportation (MV and other)	4	0	0	4	4
Falls	0	1	0	1	1

Source: Oregon Violent Death Reporting System

Mental health problems, interpersonal relationship problems and school problems are common factors associated with suicide (Table 3).

Table 3. Circumstances surrounding adolescent suicides, Oregon 2003-10

Circumstances	Males (N=65)		Females (N=22)	
	Count	%	Count	%
Mental Health Status				
Diagnosed mental disorder	21	32	11	50
Problem with alcohol	6	9	0	0
Problem with other substance	9	14	1	5
Problem with alcohol and other substance	2	3	1	5
Current depressed mood	34	52	8	36
Current treatment for mental health problem *	19	29	9	41
Interpersonal Relationship Problems				
Broken up with boyfriend/girlfriend	14	22	7	32
Other relationship problem	5	8	1	5
Victim of interpersonal violence within past month	1	2	0	2
Perpetrator of interpersonal violence within past month	2	3	0	0
Death of family member or friend within past five years	4	6	1	5
Suicide of family member or friend within past five years	0	0	1	5
Life Stressors				
A crisis in the past two weeks	33	51	11	50
Physical health problem	0	0	0	0
Recent criminal legal problem	10	15	1	5
Noncriminal legal problem	1	2	1	5
School problem	19	29	4	18
Suicidal Behaviors				
Disclosed intent to die by suicide	19	29	9	41
Left a suicide note	18	28	10	45
History of suicide attempt	8	12	6	27

*** Include treatment for problems with alcohol and/or other substance.**
Total frequencies might exceed 100% because suicide decedents might experience more than one circumstance.
Source: Oregon Violent Death Reporting System

The next section of this report will present suicide attempt data from the Adolescent Suicide Attempt Data System (ASADS).

SUICIDE ATTEMPT DATA

Suicide attempt data in this report are from the Adolescent Suicide Data System (ASADS). ASADS was established in 1987 by Oregon Revised Statute 441.750, mandating that hospitals refer youth who attempt suicide to in-patient or out-patient community resources, crisis intervention or other appropriate intervention by the patient's attending physician, hospital social work staff or other appropriate staff, provide information to patients, and report attempt information to the Oregon Health Authority. Data are collected only for youth ages 17 and younger. In 2008 the Injury and Violence Prevention Program (IVPP) assumed operation of ASADS from the state Center for Health Statistics, and modified data form was introduced.

During 2010, 584 suicide attempts and suicidal behaviors were reported to the Adolescent Suicide Attempt Data System (ASADS). Among the 584 reported cases, 202 met the case definition for suicide attempt and data from those cases are reported below. Compared to 2009, the number decreased about 21% (Table 4).

Table 4. Number of suicide attempts by year and sex, Oregon 2008-2010

Year	Total *	Male	Female
2008	162	53	105
2009	255	81	148
2010	202	64	123

*** Include cases without information of sex**
Source: Adolescent Suicide Attempt Data System

Sex and Age

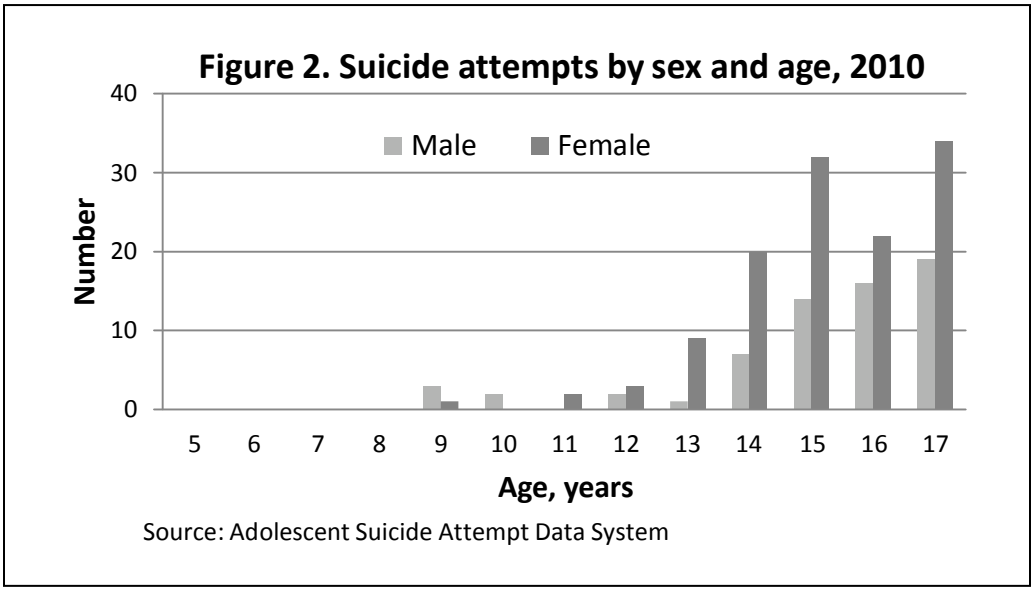
Girls are more likely than boys to attempt suicide. In 2010, 66% of all reported attempts were among girls. A similar pattern is noted in past years (Table 4). Although girls are more likely than boys to attempt suicide, boys are more likely to use more lethal means in their attempts that result in more deaths (Table 1 and 2).

Suicide attempts increase with age (Figure 2). In 2010, nearly 70% of attempts were among children 15-17 (Table 5).

Table 5. Suicide attempts by age group and sex, Oregon 2010

	Age group						Total	
	<= 12		13-14		15-17			
	N	%	N	%	N	%	N	%
Male	7	11	8	13	49	77	64	34
Female	6	5	29	24	88	72	123	66
All	13	7	37	20	137	73	187*	100

***There was no information on sex among an additional 15 cases.**
Source: Adolescent Suicide Attempt Data System.



Race

Based on available data, 77% of attempts were among white youth, 5% were among Black, 2% were among American Indian/Native Alaskan, 1% among Asians, and 1% reported “other” race; 7% reported Hispanic ethnicity. Twenty two percent of attempts did not have information on race.

Method

A variety of methods were involved among youth suicide attempts. Most attempts (more than 85%) involved a single method. Overall, poisoning, cutting and hanging were the most commonly reported methods of injury. Among attempts with poisoning, almost all involved drugs. The "drugs" in the method category include over the counter medicines, pharmaceuticals, and street drugs.

There were differences observed by sex (Table 6). Girls were more likely than boys to ingest drugs (67% vs.38%). Boys were more likely to use firearms or hanging (24% vs. 4%).

Table 6. Method of attempt by age group and sex, 2010

Method	Sex				Age group						Total	
	Male		Female		<= 12		13-14		15-17			
	N	%	N	%	N	%	N	%	N	%	N	%
Cutting	13	20	20	16	2	15	9	24	22	16	33	18
Firearms	5	8	1	1	0	0	0	0	6	4	6	3
Hanging	10	16	4	3	4	31	0	0	10	7	14	7
Other	11	17	12	10	2	15	9	24	12	9	23	12
Poisoning	24	38	82	67	4	31	17	46	85	62	106	57
Unknown	1	2	4	3	1	8	2	5	2	1	5	3

Source: Adolescent Suicide Attempt Data System

Type of Attempt

Suicidal behaviors are complex. A suicide attempt may or may not result in injury. In 2010, more than 125 attempts (>65%) resulted in injury (Table 7). The attempts among girls resulted in more injuries compared with the attempts among boys (75% vs. 52%). As age increased, so did the frequency of injuries associated with attempts.

Table 7. Type of adolescent suicide attempt by sex and age group, 2010

Outcome	Sex				Age group						Total	
	Male		Female		<= 12		13-14		15-17			
	N	%	N	%	N	%	N	%	N	%	N	%
Had a specific plan	15	23	14	11	3	23	8	22	18	13	29	16
Acts without injury	16	25	16	13	3	23	4	11	25	18	32	17
Resulted in injury	33	52	92	75	7	54	25	68	93	68	125	67
Unknown / Not Stated	0	0	1	1	0	0	0	0	1	1	1	1

Source: Adolescent Suicide Attempt Data System.

Approximately 20% of adolescent suicide attempts were stopped by self or by other (Table 8).

Table 8. The status of adolescent suicide attempt, 2010

Status	Sex				Age group						Total	
	Male		Female		<= 12		13-14		15-17			
	N	%	N	%	N	%	N	%	N	%	N	%
Attempted	35	55	100	81	8	62	25	68	102	74	135	72
Interrupted	21	33	15	12	3	23	9	24	24	18	36	19
by self	6	9	3	2	0	0	2	5	7	5	9	5
by other	12	19	8	7	1	8	5	14	14	10	20	11
by whom, unknown	3	5	4	3	2	15	2	5	3	2	7	4
Did not attempt	5	8	5	4	2	15	3	8	5	4	10	5
Unknown / Not Stated	3	5	3	2	0	0	0	0	6	4	6	3

Source: Adolescent Suicide Attempt Data System.

Approximately 40% of youth told another person of their plan to attempt suicide prior to the act (Table 9). They often told their plan to their parents and friends. Preteens were less likely to tell another person about their planned attempt.

Table 9. Adolescent attempt told others of suicide plan by age group and sex, 2010

Tell others of plan	Sex				Age group						Total	
	Male		Female		<= 12		13-14		15-17			
	N	%	N	%	N	%	N	%	N	%	N	%
Did tell	22	34	50	41	2	15	20	54	50	36	72	39
Did not tell	28	44	33	27	4	31	9	24	48	35	61	33
Not sure/Not Stated	14	22	40	33	7	54	8	22	39	28	54	29

Source: Adolescent Suicide Attempt Data System.

Household Situation

Of 187 attempts, 33% reported living with their mother only; 19% reported living with both parents, and 13% reported living with a parent and step parent. For 5% of reported attempts, the youth's living situation was unknown (Table 10).

Table 10. Adolescent suicide attempts by household situation, sex, and age group, Oregon 2010

Live with	Sex												Total	
	Male						Female							
	Age group						Age group							
	<= 12		13-14		15-17		<= 12		13-14		15-17			
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Mother Only	1	14	1	13	19	39	2	33	10	34	29	33	62	33
Both Parents	2	29	3	38	7	14	0	0	5	17	19	22	36	19
Parent & Stepparent	1	14	1	13	4	8	1	17	7	24	10	11	24	13
Foster Parents	2	29	2	25	1	2	1	17	1	3	4	5	11	6
Other	0	0	0	0	4	8	0	0	1	3	5	6	10	5
Grandparents	1	14	1	13	1	2	1	17	2	7	3	3	9	5
Juvenile Facility	0	0	0	0	6	12	0	0	0	0	3	3	9	5
Father Only	0	0	0	0	2	4	0	0	0	0	6	7	8	4
Friends	0	0	0	0	0	0	0	0	1	3	2	2	3	2
Other Relative	0	0	0	0	1	2	0	0	1	3	1	1	3	2
Adoptive Parents	0	0	0	0	0	0	0	0	0	0	2	2	2	1
Boyfriend / Girlfriend	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Homeless	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unknown/Not Stated	0	0	0	0	4	8	1	17	1	3	4	5	10	5

Source: Adolescent Suicide Attempt Data System.

Most attempts (67%) occurred at home (Table 11). Most of the attempts reported in 2010 occurred in Multnomah, Lane, Deschutes, Washington and Clackamas County (Table 12).

Table 11. Place of adolescent suicide attempt by sex, 2010

place	Male		Female		Total	
	N	%	N	%	N	%
Own Home	36	56	89	72	125	67
Other Home	2	3	3	2	5	3
School	4	6	4	3	8	4
Juvenile Facility	3	5	2	2	5	3
Foster Home	1	2	3	2	4	2
Public Place	5	8	4	3	9	5
Other	0	0	4	3	4	2
Unknown/Not Stated	13	20	14	11	27	14

Source: Adolescent Suicide Attempt Data System.

Table 12. Number of adolescent suicide attempts by resident county, sex and age group, Oregon 2010

County	Sex		Age group			Total
	Male	Female	<= 12	13-14	15-17	
Baker	1	2	0	0	3	3
Benton	0	1	0	0	1	1
Clackamas	4	10	1	4	9	14
Clatsop	0	1	0	0	1	1
Columbia	1	0	0	0	1	1
Coos	4	6	1	1	8	10
Crook	0	0	0	0	0	0
Curry	0	1	0	0	1	1
Deschutes	5	11	1	3	12	16
Douglas	1	3	0	2	2	4
Gilliam	0	0	0	0	0	0
Grant	0	0	0	0	0	0
Harney	0	0	0	0	0	0
Hood River	1	0	0	0	1	1
Jackson	2	5	0	1	6	7
Jefferson	2	0	0	0	2	2
Josephine	1	3	0	2	2	4
Klamath	0	0	0	0	0	0
Lake	0	0	0	0	0	0
Lane	6	20	1	5	20	26
Lincoln	0	1	0	0	1	1
Linn	0	9	0	3	6	9
Malheur	0	0	0	0	0	0
Marion	3	6	2	1	6	9
Morrow	0	0	0	0	0	0
Multnomah	15	21	3	9	24	36
Polk	0	0	0	0	0	0
Sherman	0	0	0	0	0	0
Tillamook	0	2	0	1	1	2
Umatilla	1	1	1	0	1	2
Union	0	0	0	0	0	0
Wallowa	0	0	0	0	0	0
Wasco	0	1	0	0	1	1
Washington	4	11	0	1	14	15
Wheeler	0	0	0	0	0	0
Yamhill	5	2	1	3	3	7

Note: 14 attempts without information of resident county
Source: Adolescent Suicide Attempt Data System

Past Attempts

Nearly one third of all attempts were made by youth who had made previous attempts, although about one third of all case reports omitted data on history of attempts (Table 13).

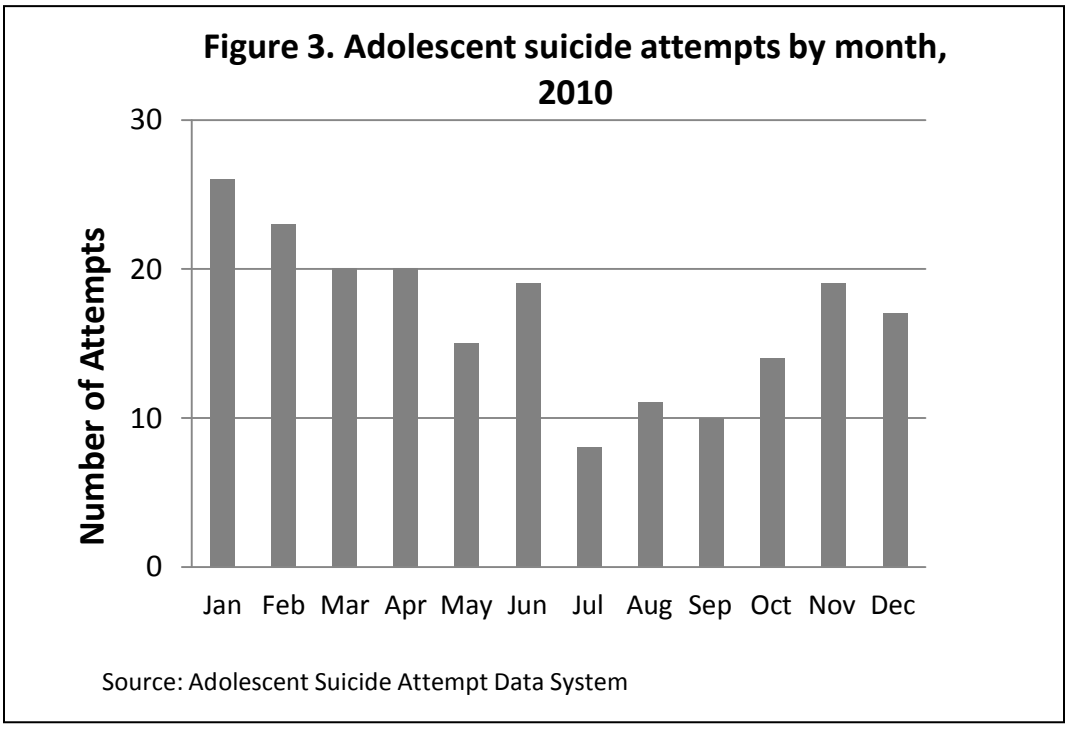
Table 13. Previous suicide attempt history among adolescents attempting suicide by sex, Oregon 2010

Number of attempt	Male		Female		Total	
	N	%	N	%	N	%
No previous attempt	18	28	48	39	66	35
Had attempted	26	41	38	31	64	34
One	8	13	16	13	24	13
Two	8	13	10	8	18	10
Three	1	2	0	0	1	1
Four or more	4	6	1	1	5	3
Unspecified	5	8	11	9	16	9
Unknown/Not Stated	20	31	37	30	57	30

Source: Adolescent Suicide Attempt Data System

Time of the Year

Suicide attempts are observed most frequently during January through April. The highest number of attempts occurred in January. The fewest suicide attempts occurred in July (Figure 3).



Psychological Conditions

Psychological conditions including depression and substance abuse are commonly reported among those who died by suicide (Table 3). Psychological conditions are also seen as predominant problems among youth treated for suicide attempts. The majority—nearly 80% of reported youth, suffered at least one psychological condition, with the majority of those (51%) reporting depression, and 10% with a history of substance abuse (Table 14 and Table 15). Among attempts, more boys than girls were diagnosed with attention deficit disorder and conduct disorder. More girls than boys were diagnosed with post-traumatic stress disorder.

Table 14. Reported mental health condition among adolescents attempting suicide by sex and age group, Oregon 2010

Mental illness	Sex				Age group						Total	
	Male		Female		<= 12		13-14		15-17			
	N	%	N	%	N	%	N	%	N	%	N	%
Any Condition	59	92	93	68	11	85	29	78	112	82	152	81
Major Depression	33	52	62	45	4	31	61	21	70	51	95	51
Dysthymia	1	2	3	2	1	8	0	0	3	2	4	2
Bipolar Disorder	12	19	10	7	1	8	3	8	18	13	22	12
Attention Deficit Disorder	20	31	9	7	4	31	6	16	19	14	29	16
Adjustment Disorder	4	6	6	4	1	8	0	0	9	7	10	5
Conduct Disorder	10	16	3	2	2	15	2	5	9	7	13	7
Post-traumatic Stress Disorder	6	9	20	15	2	15	4	11	20	15	26	14
Eating Disorder	0	0	11	8	0	0	1	3	4	3	5	3
Schizophrenia	0	0	0	0	0	0	0	0	0	0	0	0
Other Psychological Conditions	18	28	39	28	3	23	9	24	45	33	57	30

Source: Adolescent Suicide Attempt Data System
***Mental health conditions are not mutually exclusive**

Table 15. Reported substance use among adolescents attempting suicide by sex and age group, Oregon 2010

Substance abuse	Sex				Age group						Total	
	Male		Female		<= 12		13-14		15-17			
	N	%	N	%	N	%	N	%	N	%	N	%
Any substance	11	17	8	6	0	0	2	5	17	12	19	10
Alcohol	1	2	1	1	0	0	0	0	2	1	2	1
Other substance	7	11	2	1	0	0	1	3	8	6	9	5
Both alcohol and other substance	3	5	5	4	0	0	1	3	7	5	8	4

Source: Adolescent Suicide Attempt Data System

Recent Precipitating Events

Multiple factors contribute to suicidal behavior. The ASADS report form allows hospitals to report multiple recent precipitating events that contributed to suicidal behavior. Lack of social support is a common thread among adolescents who attempt suicide, especially among those who cite multiple reasons. Family discord was the most common factor associated with suicide attempt, which was reported by 45% of those youth, followed by school problems (29%), argument with boyfriend/girlfriend (21%), and drug abuse (14%) (Table16). Similar risk factors are also found among those who die from suicide (Table 3).

Table 16. Precipitating events for adolescent suicide attempts by sex and age group, Oregon 2010

Event*	Sex				Age group						Total	
	Male		Female		<= 12		13-14		15-17			
	N	%	N	%	N	%	N	%	N	%	N	%
Family Discord	21	33	63	46	5	38	10	27	69	50	84	45
School Problems	18	28	36	26	2	15	9	24	43	23	54	29
Argument w/Boyfriend/Girlfriend	14	22	25	18	1	8	6	16	32	31	39	21
Drug Abuse	15	23	12	9	0	0	3	8	24	18	27	14
Peer Pressure/Conflict	10	16	13	9	1	8	8	22	14	10	23	12
Sexual Abuse	3	5	17	12	1	2	7	19	12	9	20	11
Death of Friend/Relative	4	6	10	7	0	0	4	11	10	7	14	7
Legal Problems	10	16	2	1	0	0	1	3	11	8	12	6
Suicide of Friend/Relative	4	6	3	2	0	0	1	3	6	4	7	4
Move or New School	2	3	4	3	0	0	3	8	3	2	6	3
Physical Abuse	2	3	4	3	0	0	1	3	5	4	6	3
Pregnant	0	0	0	0	0	0	0	0	0	0	0	0
Other Factors	27	42	42	31	6	46	11	30	52	38	69	37

*** Categories are not mutually exclusive**

Source: Adolescent Suicide Attempt Data System

Hospital Admission

Approximately 47% of youth who attempted suicide were admitted to hospitals as inpatients. Fifty-six percent of boys and 37% of girls were admitted as inpatients (Table 17).

Table 17. Disposition of adolescent attempts by sex and age, Oregon 2010

Sex	Age Group	Inpatient		Outpatient		Transferred		Unknown/Not Stated	
		N	%	N	%	N	%	N	%
Male	**<=12**	2	3	3	5	1	2	1	2
	13-14	4	6	4	6	0	0	0	0
	15-17	30	47	10	16	6	9	3	5
	All	36	56	17	27	7	11	4	6
Female	**<=12**	2	1	3	2	1	1	0	0
	13-14	15	11	9	7	3	2	2	1
	15-17	34	25	35	26	14	10	5	4
	All	51	37	47	34	18	13	7	5

Source: Adolescent Suicide Attempt Data System

Referral

Hospitals that treat any adolescent for a suicide attempt are required by Oregon statute to refer those youth for follow-up care, such as in-patient or out-patient community resources, crisis intervention or other appropriate intervention. In 2010, about 7% of youth who presented to a hospital because of a suicide attempt were not referred for follow-up care. Nearly 9% percent of outpatients were not referred, and just over 5% of inpatient youth were not referred.

The next section of the report presents data on suicidal ideation from the Oregon Healthy Teen Survey.

SUICIDAL IDEATION

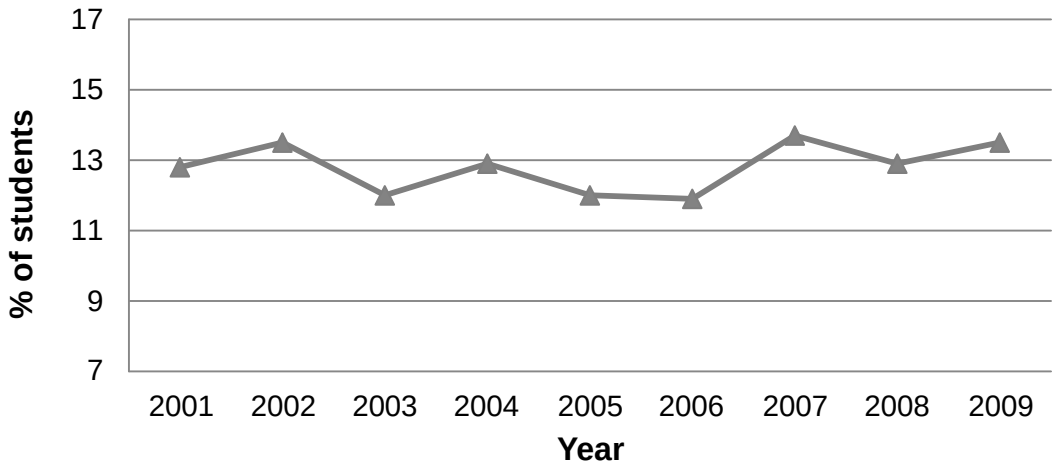
The Oregon Healthy Teen Survey monitors the factors that influence successful development. The survey includes questions about suicidal ideation and behavior. In 2009, 13.5 percent of 11th graders reported that they had experienced suicidal ideation in the previous twelve months. The percentages of 11th graders with suicidal ideation are similar in the past several years (Figure 4). Data from the entire OHFS can be found at http://1.usa.gov/HCrDVk

Table 18. Frequency and percentage of 11th grade youth reporting seriously considering suicide in the previous 12 months, Oregon, 2009

	Total		Female		Male	
	Count	%	Count	%	Count	%
Yes	478	13.5	287	16	191	10.8
No	3001	86.5	1496	84	1505	89.5
Total	3479	100	1783	100	1696	100

Unweighted counts and weighted percentages exclude missing and/or refused answers
Source: 2009 Oregon Healthy Teen Survey, 11th grade youth

Figure 4. Seriously considered suicide in past year among 11th graders, oregon, 2001-2009



Source: Oregon Healthy Teen Survey, 11th grade youth

Many factors are associated with suicide behavior. Emotional and mental health strongly correlate with suicide ideation. In 2009 survey, serious suicidal thought was reported among 71% of 11th grade students who stated that in general his/her emotional and mental health was poor (Table 19).

Table 19. Correlation of suicide ideation and emotional and mental health, Oregon 2009

Emotion and mental health	Total	Considered suicide in past year	% of total
Excellent	667	25	4
Very good	1200	75	6
Good	1031	137	13
Fair	445	149	33
Poor	128	91	71

Source: Oregon Health Teen Survey, 11th grader data

The students who had experienced depressed mood for two weeks in a row in the past year were nine times likely to have suicide ideation (40.1% vs. 6.7%).

The students who were victims of violence and / or with health risk behaviors were more likely to consider suicide (Table 20).

Table 20. Percentage of students who seriously considered suicide during past year, Oregon 2009

Characteristic	Yes	No
Ever physical and/or sexual abuse	36%	8%
Ever physical abuse	24%	9%
Ever sexual abuse	31%	12%
Physically forced to have sexual intercourse	34%	12%
Ever hit, slap and physically hurt by boyfriend/girlfriend in past year	33%	12%
Had been harassed at school during the past 30 days	25%	9%
Ever used illicit drug	30%	13%
Used illicit drug during the past 30 days	28%	13%
Had 5 or more drinks of alcohol in a row during the past 30 days	17%	13%
Use cigarettes / chewed tobacco during the past 30 days	22%	12%
Carried a gun during the past 30 days or at least two times in a physical fight in past year	26%	12%
Ever participated in the choking game	21%	13%
Ever had sexual intercourse	18%	10%
Had sexual intercourse with two or more people during the past three months	27%	15%
Had first sexual intercourse before age of 14	30%	16%

Source: Oregon Health Teen Survey, 11th grader data

PROGRAM ACCOMPLISHMENTS: 2009-2011

In 1997, the State Public Health Division began working on youth suicide prevention when the legislature established a position to coordinate an Adolescent Suicide Prevention Program. Since that time the program has worked with federal, state, and local partners to identify best practices and evidence-based practices and then disseminate them broadly across Oregon.

The state received much needed resources from the Garrett Lee Smith Act administered by the SAMSHA in 2005 and in 2009. These three year grants allowed the state to provide funds to local non-profits and governmental organizations to implement program elements defined by the state. The goal of these programs has been to establish expertise in suicide prevention at the local level where it is needed for prevention.

In 2009-2011, the program funded 20 counties and the nine federally recognized tribes in Oregon to implement program activities that included applied suicide intervention skills training, question, persuade, refer, RESPONSE, public education campaigns, local coalition activity, and tribal youth summer camps focused on positive youth development through connecting youth with mentors and building connection to traditional cultural practices. Five county Latino-focused projects assessed needs and resources and developed priorities that led to initiating prevention activities.

A very large number of Oregonians were impacted by program activities from 2009-2011.

- 64 people became trainers in the QPR model of intervention, these trainers in turn trained 2,995 residents in their communities
- 39 people became trainers in the ASIST model of intervention, these trainers in turn trained 1,317 residents in their communities
- 93 high schools have implemented the comprehensive RESPONSE program
- Nearly 1 million people were reached in public education campaigns.

Federal funding for suicide prevention in Oregon will end in 2012. The state program will work to maintain support for existing projects that communities have institutionalized and will work with partners to support the ongoing educational needs of existing trainers at the local level.

DISCUSSION AND RECOMMENDATIONS

Identifying and tracking suicide attempts is an important step in preventing suicide and reducing the burden of suicide in Oregon communities. To prevent suicide, communities, individuals, government agencies, hospitals and other health care providers must all act to prevent the problem from ever occurring.

The following recommendations are based on information gathered through ASADS and the Oregon Youth Suicide Prevention Plan.

Schools

- Implement comprehensive prevention programs
    - Establish protocols for all staff
    - Train all staff in awareness and intervention
    - Educate students about signs of suicide and how to get help
- Reduce harassment
- Establish links with community resources
- Identify students who need mental and behavioral health services
- Help students and families get available resources

Communities

- Enhance crisis services
- Establish and maintain crisis response teams
- Support suicide survivors
- Eliminate the stigma associated with behavioral health care
- Support efforts to reduce access to lethal means of self-harm

Individuals

- Get involved in the local community in suicide prevention efforts
- Recognize and respond appropriately to troubled youth that vocalize plans for suicide
- Parents: increase awareness of suicide risk factors, restrict means for at-risk youth

The health care community

- Improve follow-up care and implement outreach to suicide attempters
- Refer all attempters for follow-up care. Oregon statute requires that all youth presenting to a hospital following a suicide attempt must be referred for follow-up care
- Increase hospital compliance with state mandated reporting of suicide attempts to ASADS.
- Improve access to affordable behavioral health care

- Reporting facilities (hospitals) should adhere to the reporting protocol as detailed by OHA (www.oregon.gov/DHS/ph/ipe/ysp/ASADS2.shtml) to improve the validity and reliability of data. Accurate, timely, and reliable information leads to improved outcomes

APPENDIX A: Resources

The state prevention program recommends two intervention skills training programs:

1. QPR (Question, Persuade, Refer)

2. ASIST (Applied Suicide Intervention Skills Training)

High Schools are encouraged to implement a comprehensive suicide prevention program known as RESPONSE.

Crisis lines can be useful tools if those suffering acute crisis know how to reach them. The state prevention program recommends broad dissemination of crisis line information. There is a national lifeline and there are county crisis contacts.

1. National Suicide Prevention Lifeline

2. Oregon County Crisis Lines:

National organizations provide a wide variety of information, consultation, training, advocacy, research, program evaluation, and other support. There are three non-governmental organizations that specialized services in suicide prevention:

1. Suicide Prevention Resource Center (SPRC)

2. American Association of Suicidology (AAS)

3. American Foundation for Suicide Prevention (AFSP)

The state Public Health Division Injury and Violence Prevention Program collects, analyzes, and disseminates data on suicide, suicide attempts, and suicide ideation from a variety of sources. The program epidemiologist and research analyst are a good resource for communities and individuals who have questions about incidence, prevalence, and risk factors associated with suicide among Oregon populations. These technical scientists maintain a variety of data resources and they publish reports about suicide on the program website.

Data reports from three resources can be found on the program web pages:

1. Oregon Violent Death Reporting System

2. Adolescent Suicide Attempt Data System Reports and Reporting Forms

3. Oregon Health Teen Survey

The youth suicide prevention program provides a listserv, Youth Suicide Prevention Network (YSPNetwork) that members use to disseminate new research, data reports, make announcements about training, education, new resources, and other program efforts, and query the group. To subscribe to the list: YSPNetwork.

APPENDIX B: DEFINITIONS, DATA SOURCES AND DATA LIMITATIONS, DEFINITIONS

Suicide is a fatal self-inflicted injurious act with explicit or inferred intent to die.

Suicide attempt is defined as a non-fatal self-directed potentially injurious behavior with intent to die as a result of the behavior. It includes a person who has intent to die and has injured self, or has taken steps to injure self but is stopped by another person or self prior to fatal injury, or has a specific plan to carry out. A person has suicide thoughts only or who has injured self but has no intent to die is not considered as suicide attempt in this report.

Suicidal ideation is thoughts of engaging in suicide-related behavior.

DATA SOURCES

Death data in this report are from the Oregon Violent Death Reporting System (ORVDRS). ORVDRS was established in 2003 through a grant from the Centers for Disease Control and Prevention. This data source collects data from police, medical examiners, and death certificates on all suicides in Oregon.

Suicide attempt data in this report are from the Adolescent Suicide Data System (ASADS). ASADS was established in 1987 by Oregon Revised Statute 441.750, mandating that hospitals refer youth who attempt suicide to in-patient or out-patient community resources, crisis intervention or other appropriate intervention by the patient's attending physician, hospital social work staff or other appropriate staff, provide information to patients, and report attempt information to the Oregon Health Authority. Data are collected only for youth ages 17 and younger. In 2008 the Injury Prevention and Epidemiology Program (IPE) assumed operation of ASADS from the state Center for Health Statistics, and modified data form was introduced.

Data on suicide ideation are from the Oregon Healthy Teen Survey (OHT). OHT is Oregon's effort to monitor the health and well-being of adolescents. An anonymous and voluntary research-based survey, OHT is conducted among 8th and 11th graders statewide.

DATA LIMITATIONS

Although ORVDRS collects data from multiple sources, it is still a challenge to capture every detail and circumstance on suicides. Lack of standardized questionnaires and investigations on each death, and limited witnesses and

contacts with a victim could result in incomplete information surrounding the incidents. Therefore, this report may underestimate some given circumstances.

Collection of ASADS data is required by state statute, but there is variation in the uniformity of timely and complete reporting among hospitals, so caution must be exercised when comparing the numbers and rates of attempts across time periods. This is especially relevant for county-level data, where variation in reporting practices among a small group of hospitals can lead to substantial variation in the number of suicide attempts reported from year to year.

The ASADS system only captures data on suicide attempts among persons who present to hospitals or hospital emergency rooms. It is not known how many attempts occur among youth in Oregon who are never reported because the person who attempts does not present to a hospital emergency room. Research indicates that more than 50% of people who had suicidal behavior never seek health services. As a result, the number reported here should be considered a minimum.

Reports of suicide attempts may not include all data variables requested (e.g. sex, ethnicity, living situation, etc.). As a result, some tables shown may have missing values for some variables, and the total on the table may not equal the total number of attempts reported. In addition, table percentages may not add up precisely to 100 due to rounding. Also, the denominator for some percents may not be shown in the table due to the limited space, and may be greater than the frequency of events shown (e.g. the percent of males with major depression may have a denominator of the total number of males, not the total number of males reporting a psychological condition).

ASADS data are collected by various staff within hospitals, which can also lead to reliability issues with the reported data. Some hospitals collect data at the point of patient presentation, which is highly recommended. Others report data using coded patient records, sometime after a patient has been seen by medical staff.

Although the ASADS data are helpful for broadly describing occurrences among youth that attempt suicide, there are limitations to the data in comparing risk factors. While these data have a somewhat limited application in providing a profile for youth most at risk, the data can help direct prevention efforts by describing the magnitude of what are generally known risk factors among youth.

OHT data are self-reported. Some students might falsify their answers. Although research has demonstrated the data are of acceptable quality, the scope of underreporting or over reporting is difficult to measure.

Finally, we could not make comparisons on some results between data sources because data in this report are collected in different ways, in different time frames, and definitions and limitations of the data from source to source vary.

APPENDIX C: GLOSSARY

Alcohol problem: A suicide circumstance in which the victim is perceived by self or others as having a problem with or being addicted to alcohol. A victim who is participating in an alcohol rehabilitation program or treatment, including self-help groups and 12-step programs, and has been clean and sober for less than five years is also considered as having this circumstance.

Criminal legal problem: A suicide circumstance in which the victim was facing a recent or impending arrest, police pursuit, or an impending criminal court date, and the consequence was relevant to the suicide event.

Crisis: A suicide circumstance in which an acute precipitating event appears to have contributed to the suicide (e.g., the victim was just arrested; breakup with boyfriend or girlfriend; argument with parents).

Depressed mood: A suicide circumstance in which the person was noted by others to be sad, despondent, down, blue, unhappy, etc. This circumstance can apply whether or not the person has a diagnosed mental health problem.

Depression: A constellation of emotional, cognitive, and physiological signs and symptoms including sustained sad mood or lack of pleasure.

Diagnosed mental disorder: A suicide circumstance in which the victim was identified as having a mental health illness, such as depression, schizophrenia, obsessive-compulsive disorder, etc. The mental health problem must have been diagnosed by someone who is professionally trained.

Frequency: The number of occurrences of a disease or health outcome within a specific period of time.

Intentional: An injury resulting from purposeful human action directed against oneself or others.

Intent to die by suicide: The victim had previously expressed suicidal feelings to another person, whether explicitly (e.g., “I’m considering killing myself”) or indirectly (e.g., “I know how to put a permanent end to this pain”).

Means: The mechanism or object used in an intentionally injurious act.

Means restriction: Procedure, policy or method of limiting access to the mechanisms or methods used for intentionally injurious acts.

Mental health treatment: A suicide circumstance in which the victim had a current prescription for a psychiatric medication or saw a mental health professional within the two months prior to death. Treatment includes seeing a psychiatrist, psychologist, medical doctor, therapist or other counselor for a mental health or substance abuse problem; receiving a prescription for an antidepressant or other psychiatric medication; or residing in an inpatient or halfway house facility for mental health problems.

Method: Procedure or technique used in self-inflicted harm.

Mortality: The rate or number of deaths in a specified population.

Moving rate: Moving rate is a method that reduces the random statistical variation that occurs when the number of events is relatively small by averaging the data for a group of years. That is, the sum of the deaths for a given period is divided by the sum of the population for the same period.

Other relationship problem: A suicide circumstance in which the person was experiencing problems or conflict with a family member, friend or associate (other than an intimate partner) that appeared to have contributed to the suicide.

Physical health problem: A suicide circumstance in which the victim was experiencing terminal disease, debilitating condition, or chronic pain, that was relevant to the suicide event.

Prevention: A strategy that decreases the risk of onset of a condition or delays the harm associated with a condition.

Public health approach: A systematic approach to population health in which a problem is defined, risk and protective factors are identified, interventions are developed and tested, and effective interventions are widely adopted.

Rate: The number of events per unit of population, per time period (e.g. 5 deaths per 100,000 persons per year).

Risk factor: factors that increase the likelihood of an event.

Substance problem: A suicide circumstance in which the victim was noted as using illegal drugs (such as heroin or cocaine), abusing prescription medications (such as pain relievers or Valium), or regularly using inhalants (e.g., sniffing gas) even if the addiction or abuse is not specifically mentioned. The exception to this is marijuana use. For marijuana, the use must be noted as chronic, abusive, or problematic (e.g., “victim smoked marijuana regularly,” “victim’s family indicated he had been stoned much of the past months”).

Suicide attempt history: A suicide circumstance in which the victim was known to have previously tried to end his/her own life, regardless of the severity of the injury inflicted.

Suicide note: A suicide circumstance in which the victim left a message, e-mail, video, or other communication that he or she intended to end his/her own life. A will or folder of financial papers near the victim does not constitute a suicide note.

Surveillance: An ongoing and systematic collection of data for public health action.