Youth Suicide Attempts

Suicide has been a persistent problem among the state's youth. During 2001, 865 suicide attempts by Oregon youths ages 17 or younger were reported by Oregon hospitals, or a little over two per day.

The Oregon system identifies only attempts by youth with injuries severe enough to require emergency care at a hospital; consequently, the number of attempts reported must be considered a minimum. The Technical Notes section in Appendix B describes the methodology and limitations of the data.

The proportion of youth described with a specific characteristic is based on only those cases with known values; that is attempts in the "not stated" categories are excluded before the percentages are calculated. In most cases this makes relatively little difference in the calculated percentages.

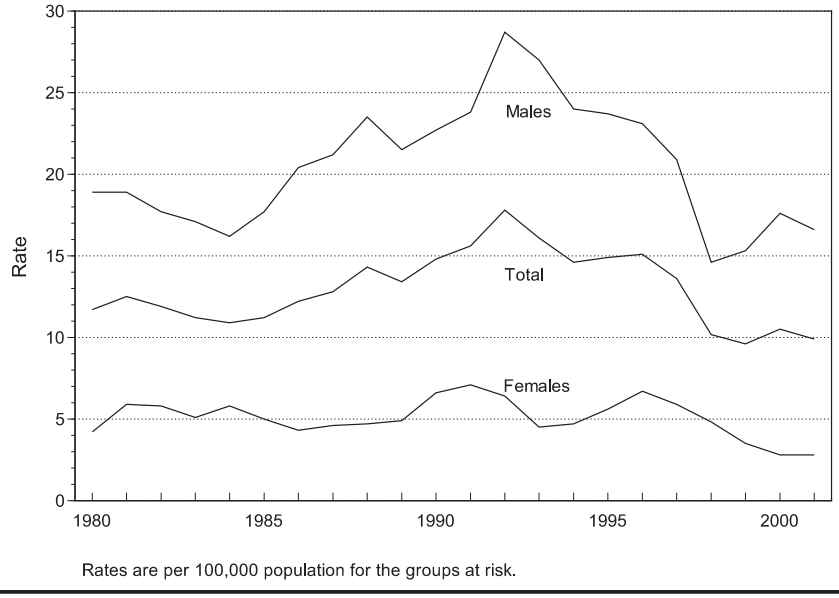
During the past decade, the suicide rate for Oregonians ages 15-19 has fallen to a level not seen since the 1970s.

SUICIDE DEATHS

Temporal Trends

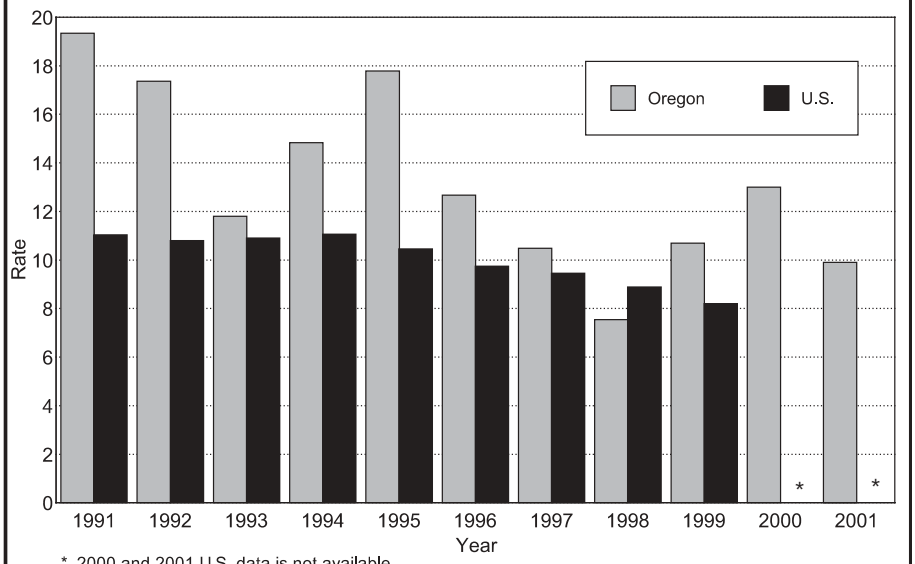
During 2001, 20 Oregon teens and preteens died by suicide compared to 37 during the previous year. Not since 1983 have so few teens committed suicide. However, because the number of events are small and subject to considerable random statistical variation from year-to-year, a better measure of the risk of suicide among teens are three-year moving rates[1], commonly expressed as the number of events among 15- to 19-year-olds per 100,000 population.

Figure 8-1.
Suicide Rates for 15- to 19-Year-Olds, Three-Year Moving Averages, 1981-2001, Oregon Residents



Rates are per 100,000 population for the groups at risk.

Figure 8-2.
Suicide Death Rates for 15- to 19-Year Olds,
Oregon and the U.S., 1991-2001



* 2000 and 2001 U.S. data is not available.

Although teen suicide death rates increased dramatically during the past generation, they have declined equally dramatically since the early 1990s. [Figure 8-1]. During 1999-2001, Oregonians 15-19 years old were 18.2 percent less likely to commit suicide than were their counterparts during 1979-1981 (9.9 versus 12.1 per 100,000 population). More strikingly, the current suicide rate is 44.4 percent lower than the peak rate of 17.8 during 1990-1992.

Males have long been at greater risk of suicide than females; during 1999-2001, their rate was 5.9 times higher (16.6 versus 2.8). By comparison, during 1979-1981, the rates were 19.8 and 4.2, respectively. At the peak during 1990-1992, rates of 28.7 and 6.4 were recorded.

While most suicide deaths occurred at home, some youth who were transported to Emergency Departments died in the hospital. The risk of death is increased by the lethality of the method, the degree of injury that is self-inflicted, and the time elapsed between injury and treatment.

Oregon Compared to the Nation

Oregon's youth suicide rate has historically been higher than the nation's. [Figure 8-2]. During the three-year period 1997-1999 (the most recent available data), the national suicide death rate for 15- to 19-year-olds was 8.8 per 100,000 population. By comparison Oregon's rate was 9.6 per 100,000 population, or 9.1 percent higher.

Number of Attempts by Year and Sex

Year	Total	Male	Female
1988	648	110	535
1989	624	120	499
1990	526	118	406
1991	577	124	453
1992	685	141	544
1993	723	113	610
1994	773	187	586
1995	753	150	603
1996	778	163	615
1997	736	151	585
1998	761	190	571
1999	738	180	558
2000	802	178	624
2001	865	202	663

Attempters of unknown sex are included in the total. Ideators are excluded beginning in 1999.

SUICIDE ATTEMPTS

Data Caveats

The Oregon suicide attempt reporting system identifies only those attempts among youth 17 or younger who sought care at a hospital and for whom a report was filed. Because reporting by hospitals can vary from year-to-year, caution should be used when interpreting youth suicide attempts over time, particularly by county. See the Technical Notes section in Appendix B for additional information on methodology.

In 2001, the youngest Oregon child ever to attempt suicide was reported, a five-year-old girl.

Gender

Girls were far more likely to attempt suicide than were boys; three in four (76.6%) of attempts were by young females. [Table 8-2].

Age

Historically[2], the youngest Oregon child reported to have made a suicide attempt was a six-year-old, but in 2001, a five-year-old girl was reported to have made an attempt.

Seventy-two attempts by preteens were reported. [Table 8-2]. Attempts by 13- to 14-year-olds numbered 208 and those by 15- to 17-year-olds totaled 585. As in years past, 15- to 17-year-olds accounted for two-thirds (67.6%) of the reported attempts. [Figure 8-3].

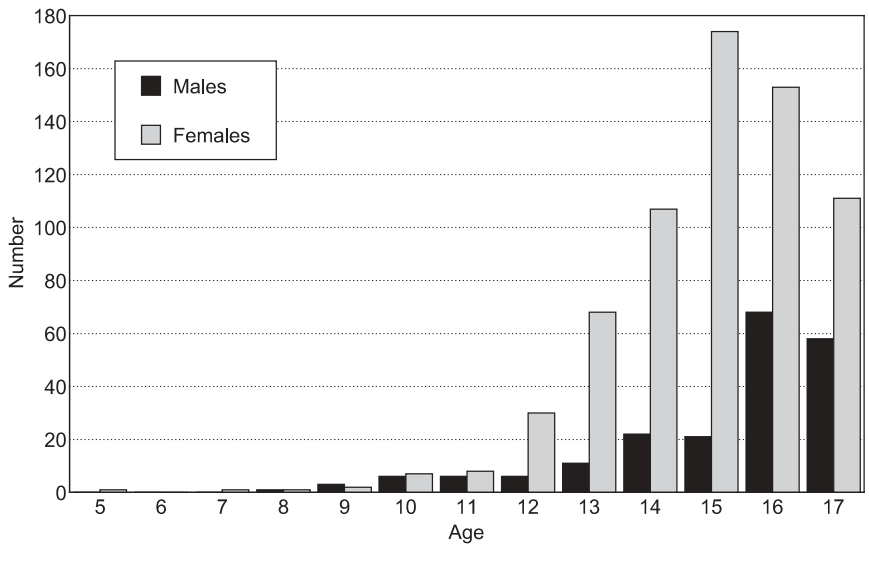
Race

The number of suicide attempts by race/ethnicity are shown in the sidebar to the right. Reflecting the racial/ethnic composition of the state, most attempts were made by white youth.

Number of Attempts

Race	2001	2000
White	757	693
African American	20	20
Indian	16	17
Chinese	1	0
Japanese	0	1
Hawaiian	0	1
Filipino	2	1
Other Asian and Pacific Islanders	9	8
Hispanic	39	55
Not Stated	21	6

Figure 8-3.
Number of Suicide Attempts by Sex,
Oregon Minors, 2001



Household Situation

Among youth reported to have attempted suicide, the largest group (35.9%) lived with both parents. Ranking second were youth living with their mother only (23.7%) while 12.9 percent lived with a parent and stepparent. Attempts involving youth under government supervision (e.g., in an institution or foster home) accounted for 9.2 percent of all attempts.

Geographic Distribution

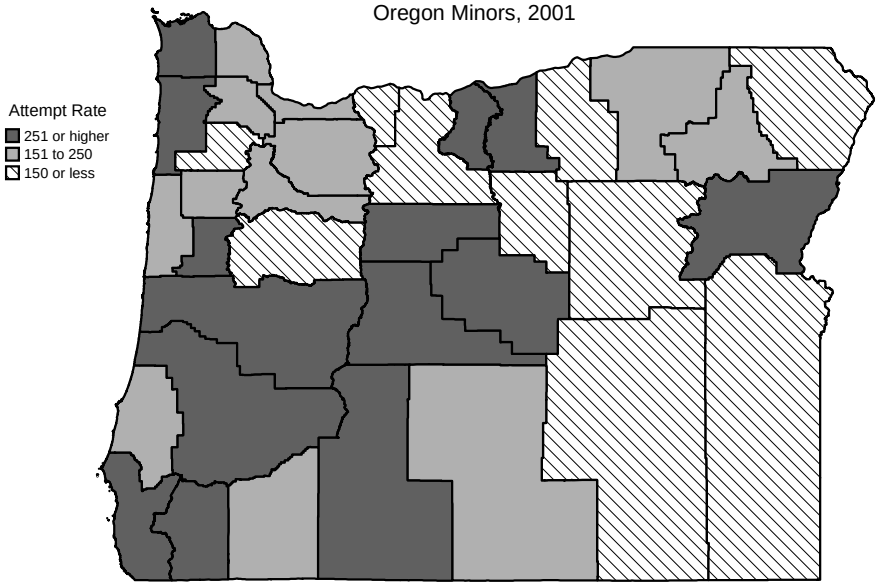
Most attempts were made at home.

While the suicide attempt rate for the state was 219.2 per 100,000 (10- to 17-year-olds) during 2001, the rates for individual counties varied widely. [Figure 8-4]. Among counties with 10 or more attempts, the three with the highest rates were all located east of the Cascade Range: Jefferson, 587.3; Crook, 531.7; and Klamath, 430.4. No attempts were reported for adolescents in two counties, Harney and Wheeler. Table 8-15 lists the number of attempts by hospital for the past twelve years. The *Oregon Health Trends* article "Youth Suicide: Results from the 1999 YRBS" lists multiyear suicide death rates by county. It is available on the Web at: http://www.ohd.hr.state.or.us/chs/oht.htm.

Place of Attempt

Most of the attempts (77.2%) were made in the adolescent's own home while an additional 6.9 percent were made in another's home. [Table 8-5]. Just 4.4 percent of the attempts occurred on school grounds. Five attempts occurred in jail.

Figure 8-4.
Suicide Attempt Rates by County of Residence,
Oregon Minors, 2001



Attempt rates per 100,000 10-17-year-olds.

Month and Date of Attempt

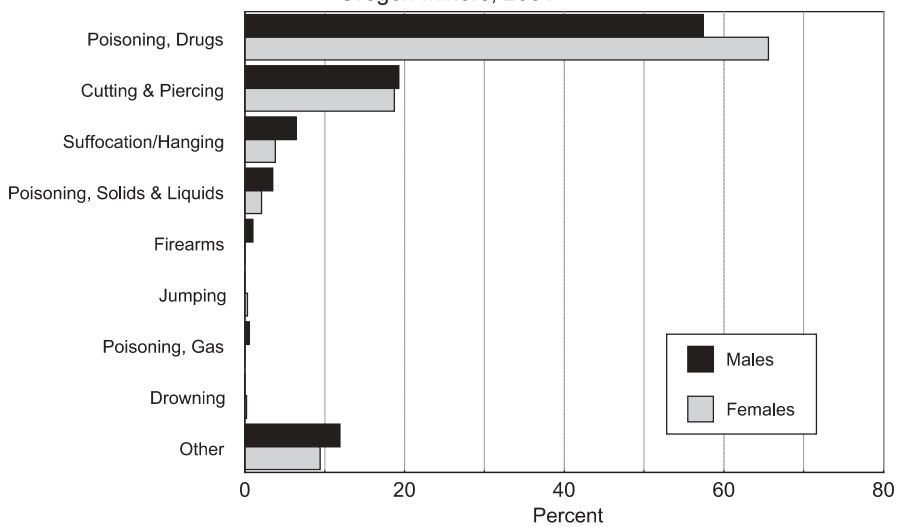
As in years past, the summer school vacation months continued to be the season of lowest risk and spring the season of greatest risk; 21.8 percent of the attempts occurred from June through August compared to 29.0 percent during March through May. About one in four attempts occurred during the fall (24.4%) and winter (24.7%). By weekday, Mondays posed the greatest risk; nearly one in five (18.7%) of all attempts occurred on Mondays compared to just 11.0 percent on Saturdays. For further information on temporal trends, see *Suicide and Suicidal Thoughts*, also published by this office, and available on the web at http://www.ohd.hr.state.or.us/chs/suicide/suicide.htm.

More attempts were made on Monday than on any other day.

Past Attempts

Overall, a little over one-half (54.1%) of all attempts were made by youth who had made previous attempts, but girls were most likely to do so. Compared to attempts by boys, those by girls were 20.0 percent more likely to be a repeat, 46.9 percent versus 56.3 percent, respectively. The youngest child to have made a prior attempt was just seven years old. Because a single adolescent may make multiple attempts during any one year, it should be remembered that references to the number or proportion of attempts with a given characteristic may be influenced by the repeated attempts of the single individual.

Figure 8-5.
Suicide Attempts by Method and Sex,
Oregon Minors, 2001



Eight in 10 attempts with guns ended in death.

Method

Six of every ten attempts were made with drugs.

Oregon adolescents used a variety of methods in their attempts, but ingestion of drugs accounted for the majority (63.7%). Girls were more likely to use this method; 65.6 percent did so compared to 57.4 percent of boys. [Figure 8-5]. Slightly over a third (35.8%) of the 551 drug-related cases involved analgesics; aspirin and acetaminophen were most commonly used. (The latter is of particular concern because many adolescents are unaware of its potential long-term toxic effects and lethality.) Most of the other attempts involving drugs were with combinations of drugs or of drugs with alcohol. Caustic substances and agricultural compounds were also used.

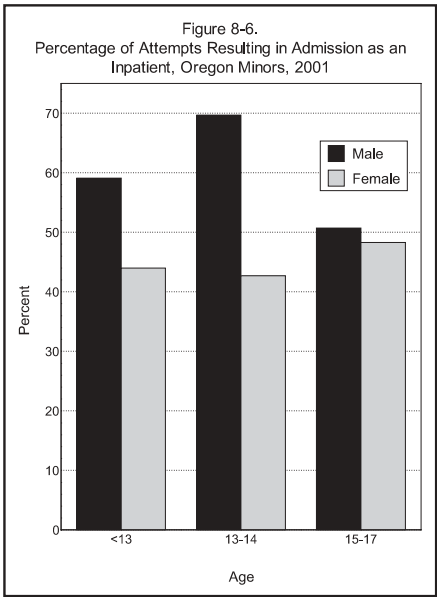
Cutting and piercing injuries ranked second, accounting for 18.8 percent of the cases, with lacerations of the wrists being most common. Teens were more likely to cut themselves than were preteens, but there was little difference by gender. [Table 8-7].

The third single most common method was hanging/suffocation (4.4%). Attempts involving hanging and/or suffocation are second only to gunshots in the risk of death. Boys were more likely to use this method (6.4 percent compared to 3.8 percent of girls).

The category "other" in Table 8-7 includes mostly attempts by multiple methods, often poisoning (usually with drugs) combined with lacerations of the wrists. Uncommon methods such as jumping from a high place or in front of a moving vehicle, electrocution, self-immolation, and motor vehicle crashes, are also included here.

Table 8-8 shows that youth making repeated attempts were more likely to use more violent methods (although not necessarily more lethal methods). Cutting/piercing and hanging/suffocation were both more common, as were attempts by multiple methods.

Figure 8-6.
Percentage of Attempts Resulting in Admission as an Inpatient, Oregon Minors, 2001



Admission Status

About one-half (48.4%) of all youth who attempted suicide were admitted by hospitals as inpatients. Reflecting their propensity to use more violent/lethal methods, males were more likely to be admitted as in patients, 54.8 percent compared to 46.5 percent of females. Tri-County area (Clackamas, Multnomah, and Washington counties) youth who attempted suicide were much more likely to be admitted as inpatients than were those treated elsewhere: Tri-County, 57.7 percent; other western counties, 45.5 percent; east of the Cascade Range, 39.0 percent. Among the categories involving a single action (and with at least 10 attempts), attempts by suffocation

or hanging were half-again as likely to lead to hospital admission as inpatients than to treatment on an outpatient basis. [Table 8-10]. The likelihood of inpatient admission increased with the number of risk factors (see Recent Personal Events, below) reported by the youth. While 34.5 percent of those reporting one risk factor were admitted as inpatients, 60.4 percent of those reporting two factors and 73.2 percent of those reporting three or more factors were admitted as inpatients.

Recent Personal Events

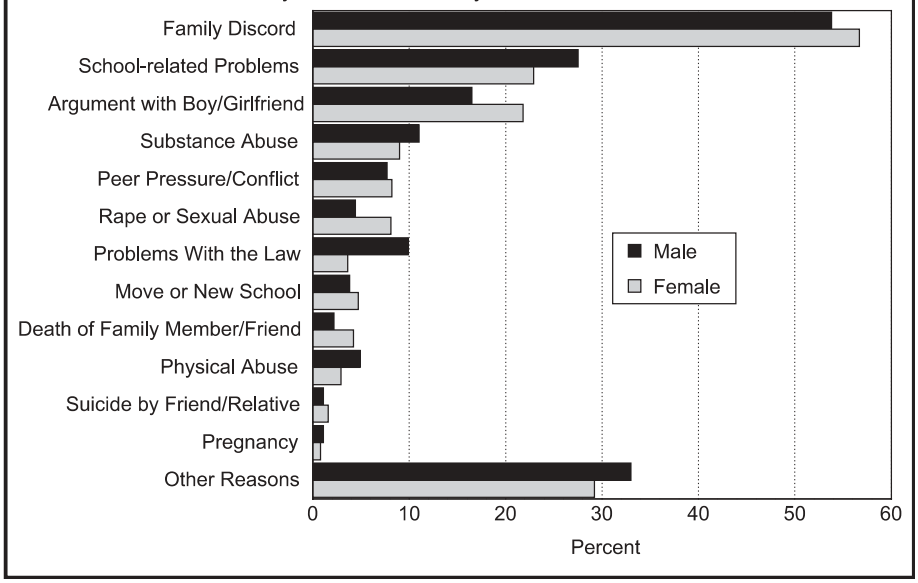
A suicide attempt may be triggered by variety of personal crises. [Figure 8-7]. The report form allows one or more events leading to the attempt to be recorded. For example, one 14-year-old girl reported family discord, physical and sexual abuse by her mother and her mother's boyfriend, and hunger.

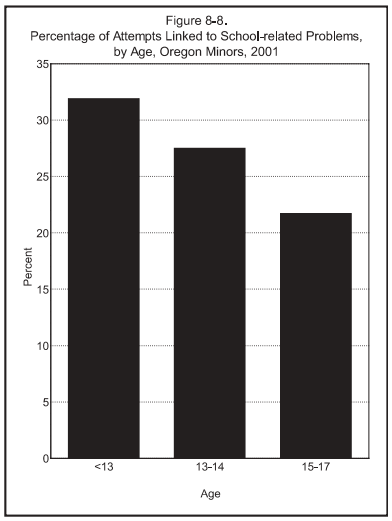
Family discord was the most common precipitating factor.

Lack of social support is common thread among adolescents who attempt suicide, especially among those who cite multiple reasons. Only about one in three of youth who attempted suicide lived with both natural parents. The most commonly reported reasons follow in order by frequency:

Family discord was the most common factor associated with a suicide attempt. More than half (56.1%) of Oregon minors reported discord as a precipitating event. [Table 8-11]. It was reported slightly more often by females than males (56.7% versus 53.8%). Preteens were most likely to report family discord and 15- to 17-year-olds least likely (66.7% versus 53.0%).

Figure 8-7.
Percentage of Suicide Attempts Among Oregon Minors, by Reasons Given by Each Sex, 2001





School-related problems were cited by one in four (24.0%) youth who attempted suicide, but more often by males (27.5% versus 22.9% of females). As with family discord, this reason was given most often by preteens and least often by 15- to 17-year-olds (31.9% versus 21.7%).

An **argument with a boyfriend or girlfriend** was the third most common reason given with one in five attempts (20.6%) linked to such arguments. Females were more likely than males to report this as a precipitating factor (21.8% versus 16.5%). While just 2.9 percent of preteens reported arguments with their boy/girlfriends, 24.9 percent of 15- to 17-year-olds did so.

Substance abuse triggered about one in 10 attempts (9.5%) and was slightly more common among males than females, 11.0 percent compared to 9.0 percent. No preteens reported substance abuse, but 12.2 percent of 15- to 17-year-olds did so. Among Oregon adolescents who attempted suicide, those citing substance abuse were second only to those citing rape or sexual abuse in the likelihood of having made previous attempts; nearly two-thirds (65.5%) had done so.

Peer pressure/conflict was a factor in about one in 12 (8.1%) attempts. There was little difference by gender and no clear trend by age group. However, peer pressure was reported almost twice as often by Tri-County youth as by those living elsewhere in Oregon, 11.2 percent compared to 6.1 percent.

Rape or sexual abuse was reported by 7.2 percent of youth who attempted suicide, but was about twice as common among females than males (8.1% versus 4.4%). There was no clear trend by age. Nearly two-thirds (65.9%) of youth reporting that they had been raped or sexually abused had made at least one prior suicide attempt, the largest proportion among the listed risk factors. Rape/sexual abuse was reported most often by those who were homeless (12.5%) or living with their father (11.8%), and least often by those living with both parents (3.7%).

Nearly two-thirds of youth who attempted suicide and who had been sexually abused or raped had made prior attempts.

Problems with the law were mentioned by one in 20 youth treated for a suicide attempt. Males were more than twice as likely as females to give this is a reason (9.9% versus 3.6%). The older the youth, the more likely they were to mention legal problems.

A **move or new school** was a factor in 4.5 percent of adolescent suicide attempts. Females were more likely than males to be troubled by a move or new school, 4.7 percent versus 3.8 percent. Moving or attending a new school was cited by 7.2 percent of preteens but only 3.9 percent of 15- to 17-year-olds. It was also much more likely to be a precipitating

factor among Tri-County youth than those living elsewhere: Tri-County, 7.2 percent; other western Oregon counties, 3.1 percent; east of the Cascade Range, 2.3 percent.

The **death of a family member or friend** was associated with 3.7 percent of reported suicide attempts, and was more common among females than males (4.2% versus 2.2%). There was no clear trend by age.

Physical abuse was given as a reason by 3.4 percent of youth who attempted suicide. It was reported more often by males (4.9% versus 2.9% of females) and youth ages 14 or younger.

Suicide by a friend or relative was associated with few suicide attempts, just 1.5 percent overall. There was little difference by gender, but preteens were more likely mention this as a factor (4.3% versus 0.9% of 15- to 17-year-olds).

Pregnancy was a factor in only about one in 100 (0.9%) attempts.

Other risk factors were noted, including physical handicaps, a need for an organ transplant, eviction by parents, drug use by parents, and unemployment.

Same-sex sexual orientation is generally accepted as a related underlying cause of teen suicide. The issue is difficult to study under the current reporting system because of a lack of comparison data. Moreover, even if information on sexual orientation were requested on the reporting form, it's validity would be highly questionable given the environment in which the information is usually collected; a substantial portion of the teens would be unlikely to respond accurately. Nevertheless, the risk is one that health-care providers must consider.

ENDNOTES

1. Moving (rolling) rates are often used where rates based on rare events are tracked over time. This method dampens 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. In Figure 1, for example, the data point for 2000 consists of a three-year average, 1998-2000. The next data point, for 2001, consists of data for 1999-2001.

2. Since the initiation of the Adolescent Suicide Attempt Data System in 1988.