OREGON HEALTH TRENDS
Center for Health Statistics (503) 731-4354
OREGON DEPARTMENT OF HUMAN SERVICES

SEXUAL ACTIVITY

Among Oregon Teens in 2001

SERIES NO. 60
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Teen sexual activity - if, when, and, if so, with what protection - has been a public health issue for many years. Sexually active teens have higher risks of unplanned pregnancy and sexually transmitted diseases compared to older counterparts. Research shows teens that engage in one risk behavior generally engage in several risk behaviors and these health behaviors impact the adolescent and the community.[1]

HEALTHY PEOPLE 2010

Healthy People (HP) 2010[2] is a set of federally designated health goals to improve the health status of the United States. Objectives on Family Planning (Section 9) and Sexually Transmitted Diseases (Section 25) are particularly relevant to sexual activity among teens.

This newsletter reports Oregon's progress towards Healthy People 2010 goals related to sexual activities and associated risk behaviors among high school students. It then provides more detailed risk behavior information specific to 11th graders. Table 1 lists these objectives and targets as well as the corresponding numbers for Oregon in 2001.

Overall the news is good; fewer Oregon teens are having sex, and those who have had sex waited longer and used contraceptives.

Table 1. Healthy People 2010 Objectives	2010 Target	2001 Oregon
9-9. Increase the proportion of adolescents age 15 to 17 who have never engaged in sexual intercourse.	75%	64%
9-8. Increase the proportion of adolescents aged 15 to 19 years who have never engaged in sexual intercourse before age 15 years.	88%	86%
9-10. Increase the proportion of sexually active, unmarried adolescents aged 15 to 17 years who use contraception that both effectively prevents pregnancy and provides barrier protection against disease.		
Condom		
females	75%	60%
males	83%	70%
Condom plus hormonal method (birth control pills or shot)		
females	9%	**13%**
males	11%	**12%**
9-7. Reduce pregnancies among adolescent females aged 15 to 17 years. Rates per 1,000 females age 15 to 17.	43	**31.7**
25-11. Increase the proportion of adolescents in grades 9 through 12 who abstain from sexual intercourse or use condoms if currently sexually active.	95%	89%

Boldface indicates goal is currently met or exceeded.

Almost two-thirds of Oregon students reported never having sexual intercourse.

Overall the news is good; fewer Oregon teens are having sex, and those who have had sex waited longer and used contraceptives. Oregon already has met the Healthy People 2010 goals for two of the objectives, (teen pregnancy and contraceptive use with both barrier and hormonal methods), and is close to attaining the 2010 goal for Objective 9.8, increasing the age of sexual initiation, in 2001.

We are able to track our state's progress toward HP 2010 goals using the Oregon Healthy Teens Survey and Vital Statistics data. The Oregon Healthy Teens Survey (OHT) asks 9th through 12th grade students about a variety of risk behaviors, including questions about sexual activity and use of birth control. (See methodology, page 14.)

HEALTHY PEOPLE 2010 OBJECTIVES

Increase the proportion of adolescents aged 15 to 17 who have never engaged in sexual intercourse to 75% - Objective 9-9.

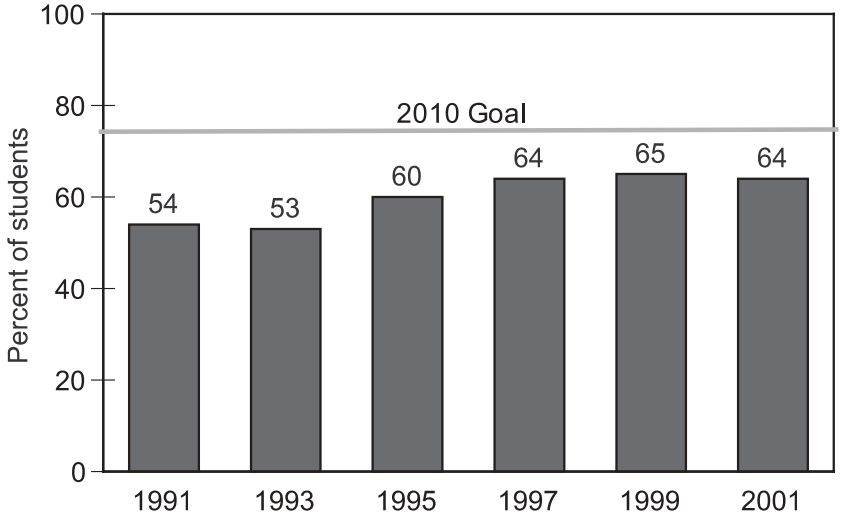
Among Oregon students surveyed, almost two-thirds (64%) reported never having sexual intercourse. This percentage increased significantly* from 54% in 1991 to 64% in 1997. Between 1997 and 2001 it remained stable between 64 percent and 65 percent. (See Figure 1.) Oregon male OHT participants are closer to the 75% target with 65.5% having never had sex compared to 62.8% for female students. To reach the Healthy People 2010 target, the percentage will need to increase by 10 percentage points.

Increase the proportion of adolescents aged 15 to 19 who never engaged in sexual intercourse before age 15 to 88% - Objective 9-8.

In 2001, 86 percent of Oregon high school students aged 15-19 had either never had sex or had sex for the first time at age 15 or older.

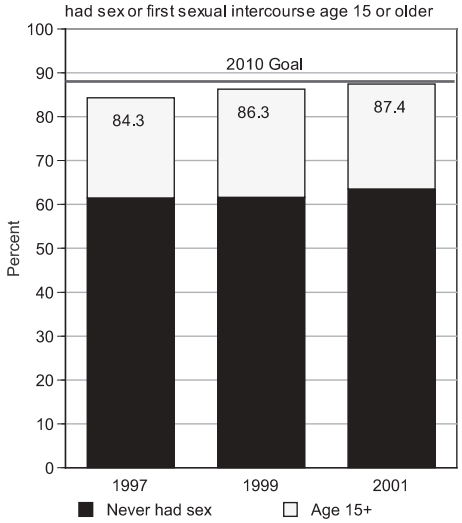
Female students were closer to this goal in 2001 with 87.4 percent never having sex before age

Figure 1. Students aged 15 to 17 who never had sexual intercourse, Oregon, 1991-2001



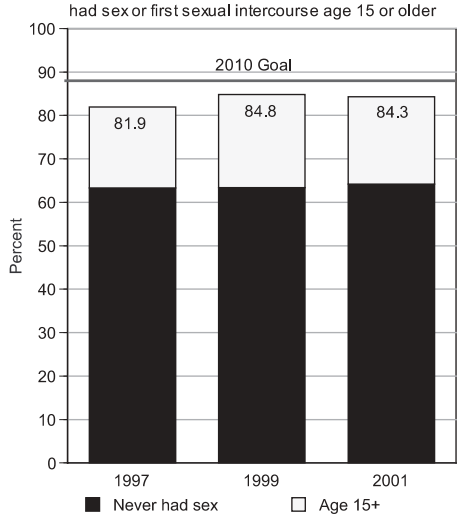
Source: DHS, OHT 2001 and YRBS 1991-1999

Figure 2. **Female** students age 15-19 reporting never had sex or first sexual intercourse age 15 or older



Source: DHS,Oregon Healthy Teens high school survey.

Figure 3. **Male** students age 15-19 reporting never had sex or first sexual intercourse age 15 or older



Source: DHS, Oregon Healthy Teens high school survey

15 compared to 84.3 percent of males. (See Figures 2 and 3.) These percentages include both students who reported never having had sex and those who reported first sexual intercourse occurring at age 15 or older. Although the increases among both females and males are encouraging, only the increase among males between 1997 and 1999 is statistically significant*.

Increase the proportion of sexually active, unmarried adolescents aged 15 to 17 years who use contraception that both effectively prevents pregnancy and provides barrier protection against disease - Objective 9-10

- *Increase condom use to 75% of females and 83% of males*

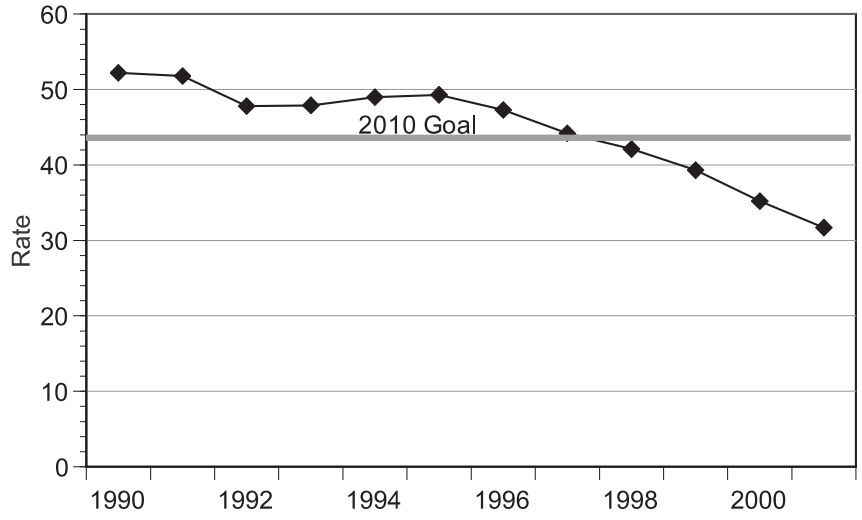
Condoms are of particular significance as barrier protection from disease as well as unplanned pregnancies. Based on the Oregon Healthy Teens Survey, of those who are currently sexually active 60 percent of females and 70 percent of males aged 15-17 used condoms. Overall, 64.3 percent of sexually active students aged 15-17 reported using condoms, a 6 percent increase from 1999 when only 60.5 percent of sexually active high school students reported using condoms.

- *Increase condom use plus hormonal method to 9% of females and 11% of males*

Two important concerns about teen sexual activity are the possibilities of early pregnancy and transmission of sexual diseases. Condoms provide barrier protection against sexually transmitted diseases and also prevent pregnancies. However, hormonal birth control is the most effective method for preventing pregnancies among sexually active teens, although it does not protect against sexually transmitted diseases. Healthy People 2010 recommends condom use in conjunction with other contraceptive methods among sexually active teens.[3]

* The use of the term 'significant' in this article refers to statistically significant difference at the 95% confidence level (see Glossary). It does not necessarily relate to how important the difference is to the issue considered.

Figure 4. Pregnancy rate* for Oregon females age 15-17, 1990-2001



*Rate per 1,000 females each year aged 15 to 17.

Source: DHS, Birth and Induced Termination of Pregnancy statistical files.

Teen pregnancy rates decreased 39% between 1991 and 2001.

Oregon students met this objective in 2001 with 13 percent of females and 12 percent of males reporting that both hormonal contraceptives and condoms were used the last time they had sexual intercourse. (See Table 1.)

Reduce pregnancies among adolescent females aged 15 to 17 years to 43 per 1,000 - Objective 9-7.

The teen pregnancy rate among females aged 15 to 17 continues to decline significantly. In 2001, there were 2,300 pregnancies to Oregon females aged 15-17, including 1,477 births and 823 induced abortions. The teen pregnancy rate among teens aged 15-17 has decreased 39 percent since 1991, from 51.8 to 31.7 per 1,000 females (Figure 4). Oregon's pregnancy rate for 2001 is 20 percent below the Healthy People 2010 Objective 9-7 (and 11 percent below the Oregon Benchmark for 2010).

Increase the proportion of adolescents in grades 9 through 12 who abstain from sexual intercourse or use condoms if currently sexually active to 95% - Objective 25-11

Among Oregon students in grades 9-12, 89% reported sexual behavior meeting this Healthy People 2010 objective, (62.7% report never having had sex, 10.1% report having had sex before but being currently abstinent, and 16.2% had sex within the last three months and used a condom). Nationally, 86.1 percent of students reported responsible sexual behavior based on the same criteria in 2001.[4]

The students who reported condom use represent almost two-thirds (66.7%) of all sexually active students (71.2% of males and 66.7% of females). This is a 10 percent increase from 1999 when only 59.2 percent of sexually active

high school students reported using condoms (65.3% of males and 53.5% of females).

Despite reported increases in condom use, 2,762 cases of chlamydia and 274 cases of gonorrhea were reported in 2001 for Oregonians aged 15-19. The combined rate of 123.5 cases per 10,000 Oregonians aged 15-19 has dropped 33 percent since 1991 when the rate was 184.3 per 10,000 (Figure 5).

The increase in rates between 1997 and 2000 reflects in part an increase in the number of adolescents tested and the use of tests with greater sensitivity.

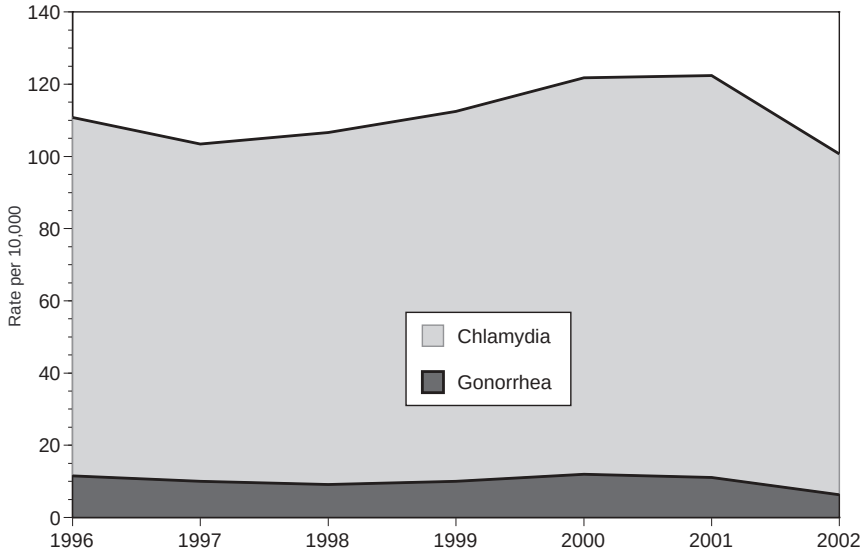
Contrary to Healthy People 2010 goals, the proportion of teens that have had sexual intercourse but are currently abstinent continues to decline. Current abstinence (during the three months prior to completing the survey) among 2001 OHT 9-12th grade students who ever had intercourse dropped to 10.1 percent. This is a 29 percent decrease since 1991 when 14.2 percent were currently abstinent. There continues to be a strong difference by gender (see sidebar) although the gap is decreasing.

Current* abstinence among Oregon students who ever had sex

	Male	Female
1997	13.5%	10.3%
1999	13.3%	10.0%
2001	11.3%	9.0%

* Abstinence during the three months prior to completing the survey.

Figure 5. Combined rates for chylamydia and gonorrhea among Oregonians age 15-19, 1996-2002



Source: DHS, Sexually Transmitted Diseases Management Information System

OTHER SURVEY FINDINGS -

Oregon's 11th grade students

Students who had sex were significantly more likely to also report binge drinking.

The proportion of 11th grade students who have never had sex increased during the past decade. Of the 3,686 students who responded, 62 percent (2,294) had never had sex, compared to 50 percent in 1991. Males and females were equally likely to have not had sex; among females, 63.3 percent had not had sex compared to 61.8 percent of males. As reported earlier, Oregon consistently has a higher proportion of teens reporting they have not had sex than the U.S. overall. In 2001, 48 percent of 11th graders nationwide reported they had never had sexual intercourse.

Overall, six in ten students have never had sex and almost three of the four remaining students had sex at age 15 or later. (See Table 2. entitled "Among Oregon's 11th graders".) Among the sexually active students, more than four in ten had sex with only one person in their life and eight in ten abstained or had sex with only one person in the previous three months.

The 2001 Oregon Healthy Teen Survey surveyed more than 7,500 11th grade students and provides the opportunity to examine in greater detail some of the factors associated with risk behaviors, including sexual activity, as well as student perceptions of parents and community. Unfortunately, although every effort was made to include minority students, Oregon's demographic composition along with the survey module design resulted in insufficient numbers of respondents to analyze data by race.

- **Students who have never had sex compared to those who had**

Students who have never had sexual intercourse were significantly less likely to report risk behaviors in several areas including binge drinking, marijuana use, being in a violent relationship and harassment. (See Table 3.)

Students who had sex were three times as likely to report binge drinking (42.7% vs. 13.6%) and marijuana use (38.8% vs. 10.9%) in the past thirty days as students who had not had sex. Sexually active students were seven times more likely to have been hit by a boyfriend or girlfriend in the past year and more than twice as likely to have been harassed with unwanted sexual attention or harassed due to their perceived sexual orientation.

Students who had sex were significantly more likely to report low protective factors in the domains of family and community. Parental monitoring of teens' behavior and family problem-solving skills has been associated with decreased high-risk behaviors.[1] Interaction with parents was a topic of the 2001 OHT Survey, including how often parents knew where the student was when away from home, whether family rules were clear, and the ability to talk with parents about personal problems. Students who had not had sex were significantly more likely to report that: their parents knew where the student was when away from home, family rules were clear, and the student was able to talk to parents about personal problems. (Table 3.)

Table 2. Among Oregon's 11th Graders

B19. Have you ever had sexual intercourse?

37.8%	a) Yes
62.2%	b) No

N=3,686

B20. How old were you when you had sexual intercourse for the first time?

62.1%	a) I have never had sexual intercourse
0.8%	b) 11 years old or younger
1.3%	c) 12 years old
2.6%	d) 13 years old
4.9%	e) 14 years old
10.9%	f) 15 years old
14.2%	g) 16 years old
3.2%	h) 17 years old or older

N=3,714

B21. During your life, with how many people have you had sexual intercourse?

62.2%	a) I have never had sexual intercourse
16.7%	b) 1 person
7.2%	c) 2 people
3.9%	d) 3 people
3.3%	e) 4 people
2.2%	f) 5 people
4.5%	g) 6 or more people

N=3,696

B22. During the past 3 months, with how many people did you have sexual intercourse?

62.4%	a) I have never had sexual intercourse
9.1%	b) I have had sexual intercourse, but not during the past 3 months
23.4%	c) 1 person
3.2%	d) 2 people
1.0%	e) 3 people
0.3%	f) 4 people
0.1%	g) 5 people
0.6%	h) 6 or more people

N=3,695

B23. Did you drink alcohol or use other drugs before you had sexual intercourse the last time?

62.1%	a) I have never had sexual intercourse
7.4%	b) Yes
30.5%	c) No

N=3,705

B24. The last time you had sexual intercourse, did you or your partner use a condom?

62.2%	a) I have never had sexual intercourse
24.9%	b) Yes
12.9%	c) No

N=3,696

B25. The last time you had sexual intercourse, what one method did you or your partner use to prevent pregnancy?

63.8%	a) I have never had sexual intercourse
2.0%	b) No method was used to prevent pregnancy
8.2%	c) Birth control pills
19.4%	d) Condoms
2.3%	e) Birth control shot (Depo Provera)
2.7%	f) Withdrawal
0.9%	g) Some other method
0.8%	h) Not sure

N=3,605

B26. How many times have you been pregnant or gotten someone pregnant?

96.1%	a) 0 times
2.4%	b) 1 time
0.4%	c) 2 or more times
1.1%	d) Not sure

N=3,645

F7. Have you ever been pressured into any sexual activity by someone you were going out with?

15.9%	a) Yes
84.1%	b) No

N=3,669

F8. Have you ever been forced to have sexual intercourse when you did not want to?

5.5%	a) Yes
94.5%	b) No

N=3,648

Students who first had sex before age 15 were 3 times as likely to report a pregnancy.

These three parental factors are certainly not independent of one another and each had a significant positive association with the other two. However, some of the risk behaviors were significantly associated with only one parental factor. Students whose parents knew where they were when away from home reported significantly lower incidences of being hit by a boyfriend or girlfriend, (3% compared to 9%). Students who reported that family rules were clear were not only significantly less likely to have had sex, but among sexually active students they were less likely to report three or more sexual partners in the previous three months (4% compared to 11%). Students reporting a high level of confidence in their ability to discuss problems with parents were significantly less likely to report having been pregnant or getting someone else pregnant (7% compared to 13%).

Students' perceptions of neighborhood and community also show a significant relationship with students' behaviors. Students who had never had sex were less likely to have high transitions, (moves to new schools or homes), or disorganized communities (fights in neighborhood, abandoned buildings, and other factors). (Table 3.)

Prosocial opportunities at school and in the community were also part of the OHT survey. Prosocial behavior is an act intended to benefit another person whether or not providing a personal benefit. Athletic teams and volunteer activities are examples of prosocial opportunities used in the survey, while rewards were generally recognition, both formal and informal. For all students, there was a substantial gap between perceived opportunities and perceived rewards for prosocial behavior. Although well over half of the students scored high on the scale for community opportunities for prosocial involvement, almost three in four (73.7%) scored low for community rewards for prosocial involvement. Students who scored high on community opportunity and community rewards for prosocial involvement scales were significantly less likely to have ever had sex.

Parental factors, perception of community and prosocial opportunities and rewards all had significant relationships with one another. For example, students who reported their parents didn't know where they were when they were away from home were significantly more likely to report a disorganized community and low rewards for prosocial behavior.

- **Students who first had sex before age 15**

A total of 393 students (9.6% of all students) reported first having sex before age 15. This included 173 females, 183 males and 37 students whose gender was not reported. Among students who were sexually active, students who first had sex before age 15 (early initiators) were significantly more likely to report risk behaviors than students who first had sex at age 15 or older.

Early initiators were a third less likely to use condoms than students who first had sex at age 15 or older. They were four times more likely to report three or more part-

Table 3. Oregon's 11th graders: Have you ever had sex?				
Characteristic or behavior		Yes Col %	No Col %	Relative Risk*
Didn't use condom last sex		34.1		
Number of partners last 3 months	Abstained	24.1		
	1 or 2	70.7		
	3 or more	5.2		
Ever pregnant or caused pregnancy		7.7		
SUBSTANCE USE				
Alcohol or drugs used before last sex		19.5		
Binge drank 30 days		**42.7**	**13.6**	**3.1**
Smoked marijuana 30 days		**38.8**	**10.9**	**3.6**
VIOLENCE/INTIMIDATION				
Missed school because afraid		6.3	4.8	1.3
Attempted suicide past year		**8.1**	**2.5**	**3.2**
Hit by boy/girlfriend past year		**11.1**	**1.6**	**7.1**
Ever forced to have sex		13.5		
Carried weapon on school property		7.1	5.1	1.4
Unwanted sexual attention		**23.7**	**10.1**	**2.3**
Harassed due to perceived sexual orientation		**7.4**	**3.2**	**2.3**
PARENTS AND COMMUNITY				
Parents don't know where child is away from home		**33.6**	**19.0**	**1.8**
Family rules not clear		**18.3**	**14.1**	**1.3**
Opportunities for community prosocial involvement are low		**47.7**	**36.8**	**1.3**
Rewards for community prosocial activities are low		**78.7**	**71.1**	**1.1**
Transitions and mobility are high		**38.7**	**28.7**	**1.4**
Community disorganization is high		**14.2**	**7.8**	**1.8**
* Relative risk ratios use students who have not had sex as reference group.				
Bold indicates statistically significant difference at P<.05.				

ners within the previous three months and three times more likely to report either being pregnant or getting someone else pregnant. (See Table 4.)

Early initiators were significantly more likely to report binge drinking, marijuana use, and using alcohol or drugs before the last time they had sex compared to students who first had sex at age 15 or older. They were twice as likely to report that parents didn't know where they were when away from home and three times as likely to report their community was disorganized.

Some of the differences in risk behaviors between early initiators and students who first had sex at age 15 or older are attributable to students who have been forced to

Table 4. Among sexually active students, how old were you the first time you had sexual intercourse?

Characteristic or behavior		Less than 15 Col %	Age 15 or older Col %	Relative Risk* Col %
Didn't use condom last sex		**41.3**	**31.7**	**1.3**
Number of partners last 3 months	**Abstained**	**20.1**	**25.5**	**0.8**
	1 or 2	**67.4**	**71.8**	**0.9**
	3 or more	**12.5**	**2.7**	**4.7**
Ever pregnant or caused pregnancy		**16.9**	**4.7**	**3.6**
SUBSTANCE USE				
Alcohol or drugs used before last sex		**26.8**	**17.1**	**1.6**
Binge drank 30 days		**47.4**	**22.2**	**2.1**
Smoked marijuana 30 days		**40.8**	**19.4**	**2.1**
VIOLENCE/INTIMIDATION				
Missed school because afraid		8.4	5.1	1.7
Attempted suicide past year		9.6	4.1	2.3
Hit by boy/girlfriend past year		**17.8**	**3.9**	**4.6**
Ever forced to have sex		**25.7**	**3.3**	**7.8**
Carried weapon on school property		**15.8**	**4.8**	**3.3**
Unwanted sexual attention		**24.9**	**14.2**	**1.8**
Harassed due to perceived sexual orientation		6.2	4.7	1.3
PARENTS AND COMMUNITY				
Parents don't know where child is away from home		**49.2**	**21.7**	**2.3**
Family rules not clear		**25.9**	**14.5**	**1.8**
Opportunities for community prosocial involvement are low		**59.7**	**38.9**	**1.5**
Rewards for community prosocial activities are low		83.7	72.9	1.1
Transitions and mobility are high		**51.5**	**30.4**	**1.7**
Community disorganization is high		**27.1**	**8.3**	**3.3**

* Relative risk ratios uses students who had sex age 15 or older as reference group.

Bold indicates statistically significant difference at P<.05.

have sexual intercourse. When looking only at students who have never been forced to have sex, students who first had sex before age 15 were not significantly more likely to binge drink or use marijuana than students who first had sex at age 15 or older. Other differences in risk behaviors reported remained significant.

- **Students who have been forced to have sex**

Early initiators were seven times more likely to report being forced to have sex as students who first had sex after age 15. Overall, 5.5 percent of students reported ever being forced to have sexual intercourse. Among 11th grade students, 25.7 percent of

Table 5. Among sexually active students by gender				
Characteristic or behavior		Female Col %	Male Col %	Relative Risk*
Didn't use condom last sex		**38.4**	**29.0**	**1.3**
Number of partners last 3 months	**Abstained**	**18.9**	**27.6**	**0.7**
	1 or 2	**77.5**	**66.1**	**1.2**
	3 or more	**3.6**	**6.3**	**0.6**
Ever pregnant or caused pregnancy		**10.8**	**4.4**	**2.4**
SUBSTANCE USE				
Alcohol or drugs used before last sex		**15.8**	**22.8**	**0.7**
Binge drank 30 days		**38.5**	**47.2**	**0.8**
Smoked marijuana 30 days		**31.9**	**43.6**	**0.7**
VIOLENCE/INTIMIDATION				
Missed school because afraid		6.9	6.2	1.1
Attempted suicide past year		8.0	7.3	1.1
Hit by boy/girlfriend past year		**8.3**	**14.6**	**0.6**
Ever forced to have sex		**22.5**	**2.2**	**10.3**
Carried weapon on school property		**4.5**	**11.4**	**0.4**
Unwanted sexual attention		**36.4**	**6.4**	**5.7**
Harassed due to perceived sexual orientation		6.7	8.8	0.8
PARENTS AND COMMUNITY				
Parents don't know where child is away from home		**25.5**	**42.2**	**0.6**
Family rules not clear		20.1	15.1	1.3
Opportunities for community prosocial involvement are low		46.4	47.6	1.0
Rewards for community prosocial activities are low		81.1	74.7	1.1
Transitions and mobility are high		41.3	34.3	1.2
Community disorganization is high		13.6	13.7	1.0
* Relative risk ratios uses male students as reference group.				
Bold indicates statistically significant difference at P<.05.				

Ever forced to have sex? (Percents)		
	Yes	No
Binge drank	44.7	27.5
Hit by boy/girlfriend	22.1	3.7
Used condom	49.0	66.7

the early initiators had been forced to have sex while only 3.3 percent of students who had sex at age 15 or older had been forced. Among early initiator females, 41.5 percent reported being forced to have sex compared to 5.5 percent of males. (Table 4.)

Students who reported ever having been forced to have sexual intercourse were significantly more likely to binge drink, attempt suicide, carry a weapon on school property, and to have been hit by a boyfriend or girlfriend in the past year than students who had never been forced to have sex regardless of the age of sexual initiation. Students ever forced to have sex were significantly less likely to use condoms and had lower protective factors including parents' knowledge of activities and connections to school and community.

- **Teens who abstained the previous three months**

Teens who reported not having sex in the previous three months were significantly more likely to have used condoms the last time they had sex (82.6% compared to 62.4%). Other risk behaviors (use of alcohol or drugs before last time had sex, binge drinking, marijuana use) and protective factors (parents knowledge of where child is when away from home, clear family rules and ability to talk to parents) did not show significant differences based on abstention.

- **Gender differences in risk behaviors**

Although there was no difference between males and females in whether the student had ever had sex or at what age they first had sex, there were significant differences in the prevalence of other risk behaviors. (See Table 5.) Females were one third less likely to report condom use and twice as likely to report a pregnancy. Females were less likely to have abstained from sex and less likely to have three or more partners in the previous three months.

Males were significantly more likely to report substance use including alcohol and marijuana, and to have used drugs before sex. Injury related issues were divided with females ten times more likely to have been forced to have sex and five times more likely to report unwanted sexual attention, while males were twice as likely to have carried a weapon on school grounds and almost twice as likely to have been hit by a boyfriend or girlfriend.

Males were almost twice as likely to report that parents don't know where they are when away from home. There were no other significant differences for interactions with parents, school or community.

DISCUSSION

Although more progress needs to be made, more Oregon adolescents are acting responsibly, reporting abstinence or, if currently sexually active, using condoms and hormonal contraceptives.

According to survey results, Oregon has made progress towards the Healthy People 2010 Objectives concerning initial sexual activity, use of birth control and protection against sexually transmitted diseases. The age of first sexual intercourse has been delayed and is close to meeting the Healthy People 2010 Objective 9-8 of 90 percent of adolescents aged 15 to 19 never having sex before age 15. The proportion of students who have never had sex (abstinent) continues to increase. The proportion of students who have had sexual intercourse but are currently abstinent continues to decrease.

Forced sexual contact and sexual intercourse should continue to be of grave concern to educators, clinicians, service providers and law enforcement. Although the number of students reporting that they had ever been forced to have sex was small, the potential costs to the child, family and community are high.[5] These students had significantly increased risk behaviors and significantly lower protective behaviors.

The full spectrum of parental influence cannot be realistically captured in discrete factors such as knowledge of child's activities or clarity of rules, but these individual questions do suggest that parental relationships affect teens. Parents' knowledge of the child's activities appears the most protective for risk behaviors among the three parental factors reported. Clarity of rules (expected behaviors) and the ability to discuss personal problems showed less influence on the wide range of risk behaviors surveyed.

Research supports the need for community, family and individual involvement in effectively understanding and modifying the dynamic relationships among risk behaviors.[6] The significant associations among several risk behaviors (including age at sexual initiation, substance use and involvement in violence) found in the OHT survey support this approach. The Oregon Healthy Teen survey was designed to collect and measure students' actions, beliefs and expectations at a point in time and cannot be used to determine or even hypothesize causal relationships. Notwithstanding this limitation, students' risk behaviors are clearly interactive; students who engage in one risk behavior are highly likely to engage in others. Students who engage in risky behaviors are also more likely to report lower protective family and community factors.

Communities and neighborhoods may be more influential on teen sexual activity than sex education, government policies or perceived risks including pregnancy and disease.[7] It is essential for communities, schools, families, and public health associations to work together with teens if Oregon is to have further decreases in the proportion of teens reporting sexual activity and other risk behaviors, and accompanying decreases in teenage pregnancies and sexually transmitted diseases.

Endnotes

1 Biglan A, Metzler C, Wirt R, et al. Social and behavioral factors associated with high-risk sexual behavior among adolescents. Journal of Behavioral Medicine. 1990; 13:245-261.

2 Department of Health and Human Services. Healthy People 2010. 2nd edition Washington: U.S. Government Printing Office. November 2000. and at www.health.gov/healthypeople.

3 DHHS. Healthy People 2010. 2nd edition, page 9-25.

4 NCHS, MMWR Vol. 51:SS-4, June 28, 2002.

5 Boyer D, Fine D. Sexual abuse as a factor in adolescent pregnancy and child maltreatment. Family Planning Perspectives. 1992; 24:4-11, 19.

6 Jessor S, Jessor R. Problem behavior and psychological development: A longitudinal study of youth. New York: Academic Press. 1977.

7 Averett, S, Rees, D, Argys, L. The Impact of Government Policies and Neighborhood Characteristics on Teenage Sexual Activity and Contraceptive Use. American Journal of Public Health. 2002; 92:1773-1778.

Our thanks to the many schools and students who participated in the Oregon Healthy Teen Survey.

The Oregon Healthy Teen Survey is a valuable resource to agencies, administrators, educators, and communities on many subjects including tobacco use, nutrition and safety as well as sexual activity. Schools that participate must weigh the cost of class and administrative time against the benefit of planning tools and key evaluation information for grants and other funding. Participation becomes more difficult in times of severely limited resources, while the information available from the survey becomes even more important in allocating those limited resources. We thank schools for their participation, which provides essential information used to measure progress by community groups, local health departments, Commissions on Children and Families, juvenile crime prevention and teen pregnancy prevention coordinators, and others who are working to ensure that youth arrive at adulthood with the skills, interests, assets, and health habits that allow them to live long, happy, and productive lives.

About Oregon Healthy Teens

Oregon Healthy Teens (OHT) survey is Oregon's method of monitoring the health and well-being of adolescents. An anonymous and voluntary research-based survey, OHT is conducted annually among 8th and 11th graders statewide, and every other year among a smaller 9th-12th grade sample.

In 2001, the Oregon Department of Human Services, the Department of Education, and other state agencies collaborated with the Oregon Research Institute to produce a single student survey (the OHT), as part of a 3-year National Cancer Institute grant. The OHT survey incorporates two youth surveys that preceded it, the YRBS and the Student Drug Use Survey. The questionnaire was comprised of six modules, and any one student randomly received three of these modules; each question was therefore answered by roughly half of the students.

In the 2000-2001 school year, the OHT survey was conducted in about 1/3 of all schools—79 high schools and 102 feeder middle schools, spread over 33 counties in Oregon. Over 7,500 11th and 11,000 8th graders participated. The 9-12th grade sample included over 7,700 students from 29 High schools in 15 counties.

The information gathered in this survey enables schools and communities to know what proportion of their young people are developing successfully and what proportion is having problems. It allows them to assess whether the things they are doing are improving outcomes for young people. OHT data are used to help evaluate the effectiveness of a variety of projects and programs that promote healthy adolescence in Oregon. They are a key source of state and national leading health indicators, such as those included in the Oregon Benchmarks and Senate Bill 555 which created the Commission for Children and Families to guide the planning and coordination of services for children and youth.

Agencies, non-profit organizations, and community groups use the data in community health assessments, and to provide base-line and evaluation information required for grants and other funding sources. OHT provides measures that are used by schools, local organizations and state agencies in projects designed to enhance local prevention and health promotion resources. Examples of programs and grants using the OHT include Teen Pregnancy Prevention, Youth Suicide Prevention, and Tobacco Prevention and Education, Safe and Drug Free Schools, and Healthy Kids Learn Better- A Coordinated School Health Approach. Obtaining this funding relies on the proven strategy of being able to demonstrate need and provide accountability by measuring outcomes.

GLOSSARY

Statistical Significance - The likelihood that the difference found between groups could have occurred by chance alone. Normally a result is statistically significant if the difference between groups could have occurred by chance alone in less than 1 time in 20. This is expressed as a p value<.05.

Percentage change -

$$\frac{\text{(Most recent number - previous number)}}{\text{Previous number}} \times 100 = \text{percentage change}$$

Example: To find the percentage change in Oregon's population from 1990-1998

1990 population = 2,842,321
1998 population = 3,267,550

$$\frac{(3{,}267{,}550 - 2{,}842{,}321)}{2{,}842{,}321} \times 100 = 15\%$$

Rate - Measures the frequency of an occurrence of an event in a population in a specified period of time for a standardized population number.

$$\frac{\text{Occurrence}}{\text{Population at risk}} \times 1{,}000 \text{ (or } 100{,}000 \text{ as specified)} = \text{rate}$$

Relative Risk - A comparison of the risk of some health-related event such as disease or death in two groups.

Scale - A scale is a measure by which something can be evaluated or compared, and is often used as a composite of individual questions to provide a single answer for a broad topic.

Teen pregnancy rate - The number of births and induced abortions among Oregon resident females in a specified age group during a specified time period, divided by the population and standardized by 1,000.

$$\frac{\text{Births + Abortions of age group during year}}{\text{Female population of same age group during year}} \times 1{,}000 = \text{rate per } 1{,}000$$

Trend - A general tendency or direction of movement.

Scales combine several questions to create a composite measure of a broad and/or complex area.

The Community opportunity for involvement scale used question c14o and questions c20a-c20e. The Community rewards for involvement scale used questions c14j, c14l, and c14m. Students with a score of less than 2.5 (with the most affirmative response equal to 4 and most negative equal to 1) were considered to have a low degree of protection.

The community disorganization scale used questions c14a, c14b, c14c, c14d and c14f to measure neighborhood safety. The transitions/mobility scale used questions c16, c17, c18 and c19 to determine frequency of changing schools both since kindergarten and in the past year. Students with a score of 2.5 or higher were considered to have a high degree of risk.

Questions can be viewed on the web site. Additional Information on back page.

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Send comments, questions and address changes ATTN CDP&E or phone (503) 731-4354. Alternate formats available upon request.

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ADDITIONAL INFORMATION:

On Oregon Healthy Teens and Youth Risk Behavior surveys about the questionnaires and survey results
www.dhs.state.or.us/publichealth/chs/yrbsdata.cfm

On national results for the Youth Risk Behavior Survey
www.cdc.gov/nccdphp/dash/yrbs/index.htm

On Healthy People 2010 **www.healthypeople.gov/**

On survey partners
- Oregon Commission on Children and Families **www.ccf.state.or.us**
- Department of Education **www.ode.state.or.us/**
- Department of Human Services **www.dhs.state.or.us/index.html**

The full text of the survey can be viewed at the 2001 Oregon Healthy Teen home page at **www.ori.org/oht/studentquestionold.html.**