

Oregon's 1997 Youth Risk Behavior Survey (YRBS) Summary Report: METHODOLOGY

The Health Services and the Department of Education had two operational goals for the 1997 YRBS: 1) to obtain a statistically valid statewide sample of approximately 50 high schools, and 2) to give all Oregon public high schools the opportunity to participate as volunteers and obtain their own site-specific data.

Participation in the Youth Risk Behavior Survey was *voluntary* at every level. District school superintendents for each of Oregon's 233 public schools having grades 9, 10, 11, or 12 were initially contacted in Fall of 1996, to invite their participation and request permission to contact their school principals. A copy of the 1997 questionnaire and a description of the survey's methodology were enclosed. If district approval was obtained, the school's principal was contacted to obtain approval and the name of a survey contact.

Fliers or letters announcing the survey were prepared to provide notification of the survey two weeks before the survey date at each school. Distribution of the notification was up to each school--some sent it home with students, while others mailed it directly to parents with grade reports. If parents did **NOT** wish their student to participate in the survey, they were to return the letter or contact the school. Copies of the survey were available at the school office if parents wanted to read the survey. Oregon SafeNet provided a toll-free number to call for information about the survey. When contacted, the Health Services sent copies of the survey to parents who were unable to go to their school's office to look at the survey. Finally, students could choose not to participate or skip any question they did not wish to answer.

Of the 50 schools randomly selected by Westat, a statistical consulting firm working with the CDC, only 24 chose to participate; a participation rate of 48 percent. The first goal, to obtain a random sample of schools, was not achieved.

Districts and schools declined to participate for various reasons, including a feeling of being over-surveyed by outside groups and competition for use of classroom time. Some did not wish to take the project to their school board because of anticipated controversies over questions concerning sexual activity and because of scheduling, education budgeting, and other local school board issues.

Because of low school participation, the stratified cluster sampling procedure recommended by the CDC and Westat, their technical consultant, was not used for this year's Oregon YRBS. The 22 schools participating from the random sample were considered volunteers and combined with 78 other schools that volunteered. Consequently, the 1997 YRBS data is comprised of 100 *volunteer* Oregon public high schools. Subsequent references to "the sample" or sampled schools refer to the 100 participating volunteer schools, rather than the randomly sampled schools.

The Health Services recommended that schools draw a random number of classes in which every student had an equal chance of being selected to participate. However, participating schools ultimately chose their own sample. In order to obtain meaningful data, some schools chose to do a census or survey their entire enrollment. Not all the schools that participated had a representative sample for doing site-specific analysis.

The YRBS was administered by classroom teachers who were asked to use procedures designed to assure students' privacy and anonymity while taking the survey.

After adjustments for absences and non-participation a total of 34,933 surveys were returned, a response rate of about 80 percent of the students in the volunteer sample.

Did Oregon Teens Tell the Truth?

Perhaps some YRBS participants did misrepresent their true behavior, but they are not included in these data. To verify the validity of responses, surveys were checked visually and then by computer for consistency between questions--32,378 were considered usable surveys. From the original total of 34,933, three percent (1,100 surveys) were not counted because of their answer to a drug-use verification

question. Five percent (1,739 surveys) were removed for having eleven or more inconsistencies to related questions (drank more alcohol in the last month than they had drunk in their life), out of range answers (answered H on a question with A to D responses allowed), and/or multiple answers (where only one answer was allowed). Another 434 surveys were not usable because gender and/or grade was missing. Some surveys were rejected for more than one reason. A combined total of seven percent of the surveys (2,555) were eliminated by these methods. The seven percent of surveys eliminated in the YRBS is slightly more than the 5.5 percent eliminated in another statewide survey used in alternate years by the Office of Alcohol and Drug Abuse Programs, Department of Human Resources.

Surveys which had fewer than eleven inconsistencies, out of range answers, or multiple answers, were included in the data set, but answers that contained inconsistent pairs, out of range answers, and multiple answers were counted as missing data for those questions. In addition, if a student reported never using marijuana or cocaine but reported injecting illegal drugs, the response for injection drugs was counted as missing (with the presumption that the report of injection drug use was false).

Although the sample obtained for the 1997 Oregon YRBS is not a statistically valid random sample, it is highly representative of the population of Oregon high school students. The graphs below compare the characteristics of the 100 schools that participated in the survey with those that were selected to participate but declined, and with those of the total Oregon high school enrollment as of October 1, 1997.

The demographic characteristics of the surveyed population were found to be very similar to the statewide public school enrollment for grade and race. Additionally, the school size and socioeconomic level surveyed schools was fairly similar to that of all Oregon public schools. In terms of geographic distribution, however, Clackamas, Washington, and Marion counties' school enrollments were under represented. No students of Gilliam, Malheur, Polk, Sherman and Wallowa counties (3,850 high school students) participated in the survey.

For tabulations, the survey data were weighted to more accurately represent Oregon's high school students. Each student's survey was assigned a weight based on their school's enrollment and socioeconomic ranking. School socioeconomic status was based on the SES score from the Oregon Department of Education's Statewide Assessment. The school SES score is a rank on a composite index consisting of: the percent of students eligible for free or reduced price lunch, student mobility rate, student attendance rate, and the level of education of the most educated parent (DOE Statewide Assessment).

More than twenty percent of Oregon's 1997 public high school enrollment participated in the YRBS survey. The results are useful in tracking trends and changes in the health risk behaviors of youth in our state. This survey may not be representative of those who dropped out of school or declined to participate in the survey.

The number of participating students is high enough that many survey findings can be said to be valid at the 99 percent confidence level. In other words, if the differences found in the survey are correct and the survey were repeated 100 times, the results would show the correct difference 99 times. When comparing groups in this summary report, if the 99% confidence intervals (or margins of error) for the groups being compared do not overlap, then the percentage difference is considered *statistically significant*, meaning that there is a true difference between the groups being compared. Differences between grades were determined using the Mantel-Haenszel chi-square test. In addition, a distinction must be made between a statistically significant result and a meaningful difference. For example, response differences of two percent or more between genders usually turned out to be statistically significant due to the large number of respondents. However, a behavior engaged in at a rate of two percent more by one gender may or may not represent an important increase in risk for that gender.

For the first time this year the YRBS summary report contains representative comments of the students who took the survey. Over ten thousand comments were collected from students. These comments were then categorized according to the general topic to which they most related. Staff members in the Center for Health Statistics, Health Promotion and Chronic Disease Prevention Program and the Center for Child and Family Health read the comments and selected those that they felt best represented the opinions of the students. Misspellings were corrected and expletives deleted, and the comments have been edited for

readability, but not altered in content. Students commented on some sections of the survey more than others, so the length of the comments portion of each section varies.

Risk behaviors are summarized for grade, gender, and race/ethnicity. Since over 80 percent of the respondents identified themselves as non-Hispanic whites, their answers are the referent group for comparisons of racial and ethnic groups. When a particular ethnic or racial group is referred to as being *significantly* different on a particular question, this means that group was significantly different from non-Hispanic whites. For brevity in the graphs of the report, non-Hispanic whites are referred to as White and African-Americans are referred to as Black.

Goals for the Year 2000 from the *Oregon Benchmarks*,¹ *U.S. Healthy People 2000*,² and the National Education Action Guide for Safe and Drug-Free Schools³ are included at the beginning of each section. When available, telephone survey data from adults responding to the 1995 and 1996 Oregon Behavior Risk Factor Surveys are included for comparison.^{4,5} When available, survey data from the 1995 national YRBS is included for comparison.⁶