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Health-Related Behaviors of Colorado Adolescents: Results from the Youth Risk Behavior Survey, 2001

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Introduction

The No Child Left Behind Act of 2001 requires states to collect data on the frequency and incidence of violence and drug-related behaviors and to construct and monitor performance indicators for drug- and violence-prevention programs. Many of these data are available from the Youth Risk Behavior Survey.

The Youth Risk Behavior Survey (YRBS) is one component of the Youth Risk Behavior Surveillance System developed by the Centers for Disease Control and Prevention (CDC) in collaboration with representatives from multiple federal, state and local departments of education and health. The Youth Risk Behavior Survey was designed to focus the nation on behaviors among youth related to the leading causes of mortality and morbidity among both youth and adults and to assess how these risk behaviors change over time. The YRBS measures behaviors that are most predictive of these leading causes. They fall into six categories:

1. Behaviors that result in unintentional injuries and violence;
2. Tobacco use;
3. Alcohol and other drug use;
4. Sexual behaviors that result in HIV infection, other sexually transmitted diseases, and unintended pregnancies;
5. Dietary behaviors; and
6. Physical activity.

Because health-related behaviors are usually established in childhood, positive choices need to be promoted before detrimental behaviors are initiated or become ingrained. Monitoring the prevalence of health risk behaviors provides guidance for the development of prevention programs and a means to evaluate the effectiveness of these prevention efforts.

Methods

The YRBS is a self-administered, anonymous, 87-item questionnaire conducted every other year. Students in grades 9-12 who are attending public schools are eligible for participation. Public high schools in Colorado are randomly selected by CDC to participate in the survey process. The probability of being selected is proportional to school enrollment size. Once a school has agreed to participate, individual classrooms at each school are randomly selected to complete the survey. These classes are either a random selection of a required subject, such as English, or a required period (e.g., 2nd period). Survey procedures are designed to protect the privacy of students by allowing for anonymous and voluntary participation. Local parental permission procedures are followed before survey administration.

Results

During the spring of 2001, 999 students in 32 public high schools in Colorado completed the survey. The school response rate was 56 percent, the student response rate was 87 percent, and the overall response rate was 49 percent. Due to the low overall response rate, the results of the 2001 Colorado survey are representative of only those students who completed the questionnaire. The demographic characteristics of the sample can be seen in Table 1. The racial/ethnic makeup of students who took the YRBS is very similar to that of all Colorado students.

Table 1. Demographic characteristics of Colorado YRBS respondents, 2001

Gender	Grade	Race/Ethnicity
Female 47.5%	9th grade 36.0%	African American 4.5%
Male 52.5%	10th grade 35.4%	Hispanic/Latino 20.0%
	11th grade 18.0%	White 68.3%
	12th grade 10.6%	All other races 4.0%
		Multiple races 3.1%

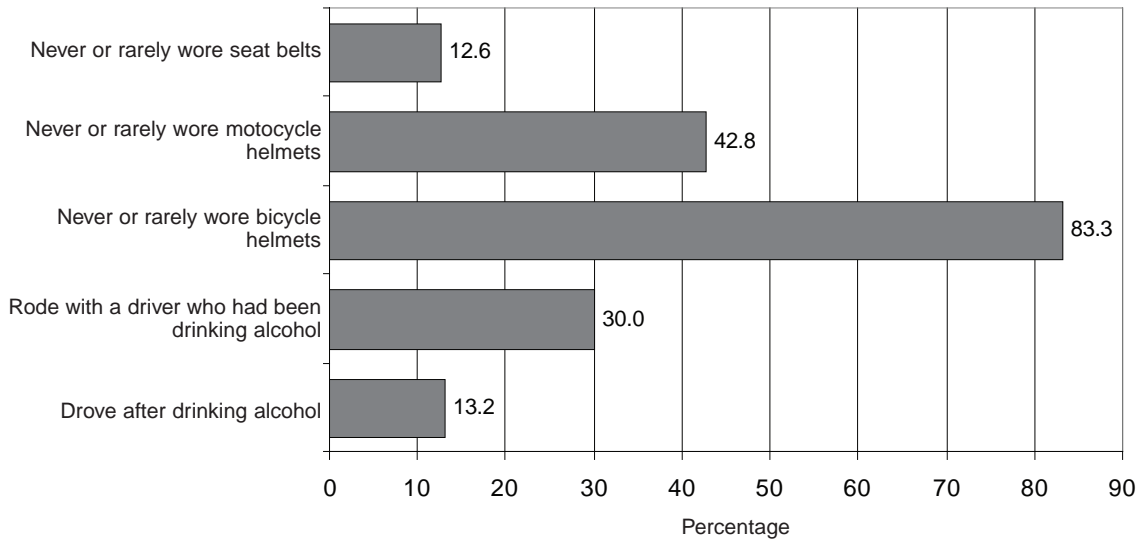
The results of the 2001 YRBS are presented below by topic area. Many of the areas also have Healthy People 2010 goals referenced. Healthy People 2010 is a national initiative, sponsored by the U.S. Department of Health and Human Services, that outlines a comprehensive, nationwide health promotion and disease prevention agenda. It is designed to serve as a roadmap for improving the health of all people in the United States by 2010.¹ Many of the health indicators have a benchmark or goal for progress by the year 2010. A commonly used abbreviation is HP 2010.¹

Behaviors that contribute to unintentional injuries

Unintentional injuries account for almost 53 percent of all deaths to 15- to 19-year-olds in Colorado, rendering them the leading cause of death among this age group. Motor vehicle fatalities alone account for 43 percent of deaths among this age group. As shown in Figure 1:

- 12.6 percent of YRBS respondents had rarely or never worn seat belts when riding in a car driven by someone else. The HP 2010 goal is for 92 percent of the population to wear seat belts, which translates into 8 percent or less not wearing seat belts regularly;
- Among students who rode a motorcycle during the 12 months preceding the survey, 42.8 percent rarely or never wore motorcycle helmets (HP 2010 goal: 79 percent of motorcyclists to wear helmets, or 21 percent or fewer rarely or never wearing helmets);
- Of students who rode a bicycle during the 12 months preceding the survey, most students (83.3 percent) reported that they never or rarely wore a bicycle helmet;
- During the 30 days preceding the survey, 30.0 percent of students reported that they rode one or more times with a driver who had been drinking alcohol and 13.2 percent reported that they themselves drove after drinking alcohol. Youth in the YRBS sample have met the HP 2010 goal of 30 percent or fewer students driving with someone who has been drinking.

Figure 1. Prevalence of behaviors that contribute to unintentional injuries, Colorado YRBS, 2001

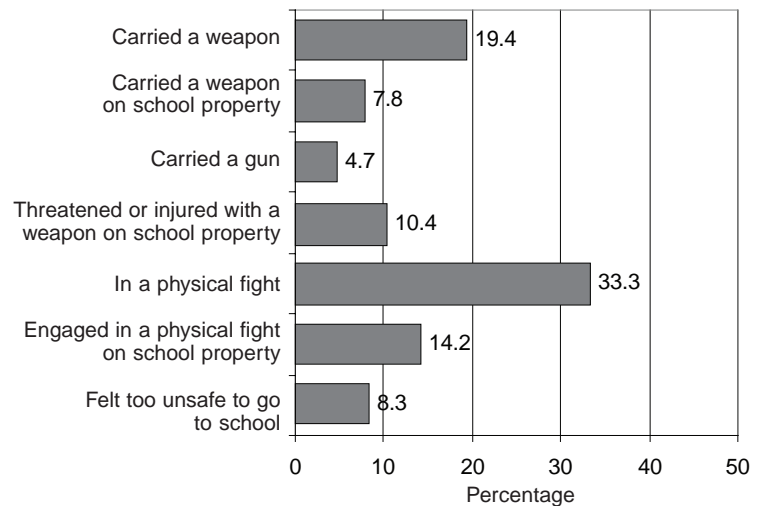


Behaviors that contribute to violence

Homicide and legal interventions account for 12 percent of all deaths among Colorado 15- to 19-year-olds, and suicide accounts for an additional 17 percent of deaths in this age group. As shown in Figure 2:

- 19.4 percent of YRBS respondents carried a weapon (knife, gun, or club) at least once in the 30 days preceding the survey. Males (30.5 percent) seem to be more likely to carry a weapon than females (7.2 percent). 7.8 percent of students carried a weapon on school property (12.2 percent of males and 2.6 percent of females) (HP 2010 goal: 4.9 percent or fewer students will carry weapons on school property);
- 4.7 percent of students carried a gun to school at least once during the 30 days preceding the survey;
- 10.4 percent of students had been threatened

Figure 2. Prevalence of behaviors that contribute to violence, Colorado YRBS, 2001



or injured with a weapon on school property one or more times during the 12 months preceding the survey;

- One third of students reported that they had been in a physical fight at least once during the 12 months preceding the survey. Males tended to be more likely (39.6 percent) to be in a fight than females (26.2 percent). (HP 2010 goal: 32 percent or fewer 9-12th graders will have engaged in a physical fight.)
- Approximately 14.2 percent of students engaged in a physical fight on school property.
- 8.3 percent of students had not gone to school on one or more days (of the 30 days preceding the survey) because they had felt unsafe at school or on their way to or from school.

Suicide

Suicide accounts for 17 percent of deaths for Colorado 15- to 19- year-olds and is the second leading cause of death among this age group. The strongest risk factors for attempted suicide in youth are depression, alcohol or other drug use disorder, and aggressive or disruptive behaviors.² As can be seen in Figure 3:

- 25.7 percent of students had felt so sad or hopeless almost every day for ≥ 2 weeks in a row that they stopped doing some of their usual activities.

During the 12 months preceding the survey:

- 19.3 percent had seriously considered attempting suicide;
- 13.8 percent had made a suicide plan;
- 10.7 percent had attempted suicide (HP 2010 goal: 1 percent);
- 3.5 percent had made a suicide attempt that required medical attention.

Tobacco, Alcohol and Drug Use

Substance use among youth is a major predictor of continued use or abuse as an adult, which can often lead to physical and/or mental health problems. The use of drugs and/or alcohol can lead to dangerous behaviors, including unprotected or unwanted sex, driving under the influence, and more serious criminal behaviors.

Tobacco

Tobacco use has been shown to cause cancer and heart disease. Youth who smoke are more likely to be adult smokers. The Healthy People 2010 goal for reduction in tobacco use among 9th- through 12th-graders is for 21 percent or fewer to use tobacco products. As shown in Figure 4, the prevalence of tobacco use among the 2001 YRBS respondents was:

- 66.3 percent had ever tried cigarette smoking, even one or two puffs;
- 19.2 percent had ever smoked ≥ 1 cigarette every day for 30 days;
- 26.7 percent were currently smoking cigarettes (1 or more days of the 30 days preceding the survey);
- 9.2 percent were currently using smokeless tobacco, chew or snuff;
- 16.4 percent were currently smoking cigars, cigarillos, or little cigars;
- 33.5 percent were currently using some type of tobacco product (cigarettes, cigars, or smokeless tobacco).

Alcohol

The Healthy People 2010 goal is for 29 percent of high school seniors to have never tried alcoholic beverages and for 89 percent of 12- to 17-year-olds to have abstained from using alcohol during the past 30 days. Figure 5 shows that in Colorado:

- 79.7 percent of students had ever consumed one or more drinks of alcohol (20.3 percent had never tried alcohol);
- 50.9 percent currently use alcohol (≥ 1 drinks in the

Figure 3. Sadness, suicide ideation and attempts, Colorado YRBS, 2001

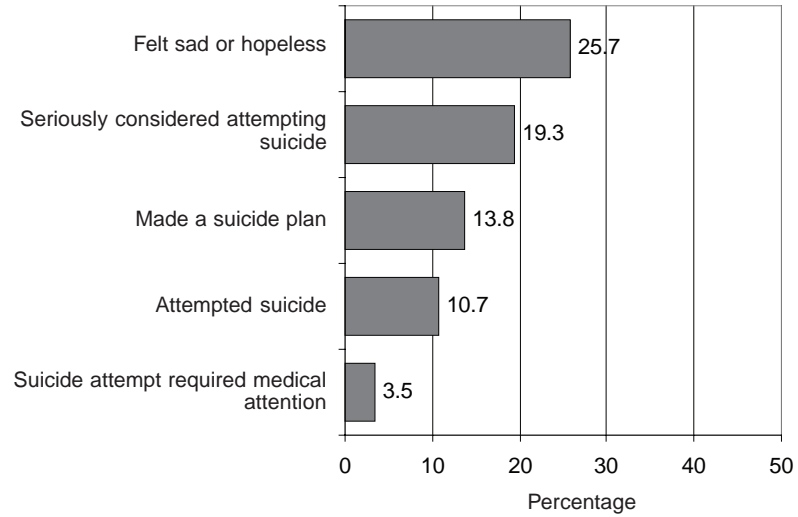


Figure 4. Tobacco use, Colorado YRBS, 2001

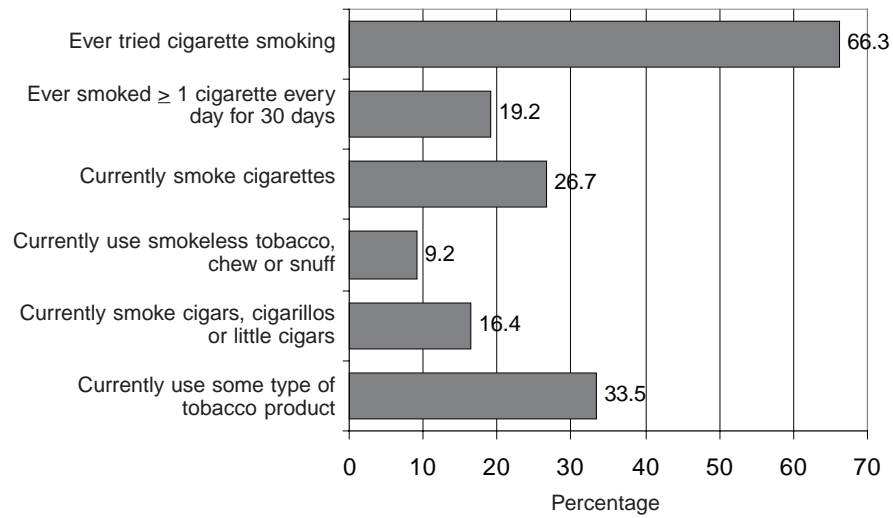
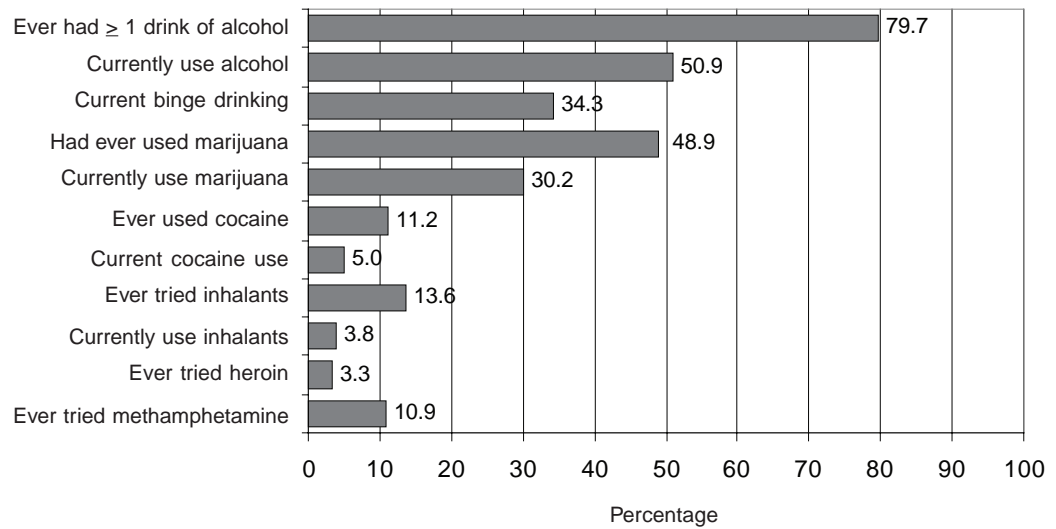


Figure 5. Alcohol and drug use, Colorado YRBS, 2001



- 30 days preceding the survey);
- 34.3 percent of students report binge drinking (5 or more alcoholic drinks on one or more occasions during one or more days during the 30 days preceding the survey).

Drugs

The Healthy People 2010 goal is for 56 percent of high school seniors to have never tried illicit drugs and for 89 percent of 12- to 17-year-olds to have not used illicit drugs during the past 30 days. Figure 5 shows the following Colorado student behaviors:

- 48.9 percent had ever used marijuana;
- 30.2 percent were currently using marijuana (≥ 1 time in the 30 days preceding the survey);
- 11.2 percent ever used cocaine;
- 5.0 percent were currently using cocaine (≥ 1 time in the 30 days preceding the survey);
- 13.6 percent had ever tried inhalants, such as sniffing glue, breathing aerosol fumes or paint fumes;
- 3.8 percent were currently using inhalants (≥ 1 time in the 30 days preceding the survey);
- 3.3 percent had ever tried heroin;
- 10.9 percent had ever tried methamphetamines.

Abstinence and sexual behaviors

Early sexual behavior increases the risk for unintended pregnancy and sexually transmitted infections. The Healthy People 2010 goal is for 75 percent of 15- to 17-year-olds to remain abstinent. As can be seen in Figure 6:

- 57.7 percent of students had remained abstinent or had never had sexual intercourse. More females are abstinent (60.1 percent) than males (55.7 percent);
- 29.1 percent of students were currently sexually active (had had sex within the 3 months preceding the survey);
- 90.4 percent of students were practicing “responsible

sexual behavior”³ (students who never had sexual intercourse, had sexual intercourse, but not in the 3 months preceding the survey, or had used a condom the last time they had sexual intercourse during the 3 months preceding the survey).

Diet and physical activity

Diet and physical activity are an important part of healthy behaviors and physical fitness. Both nutrition and physical activity impact weight and risks for many chronic illnesses. As shown in figure 7:

- 8.6 percent of students were at risk* for becoming overweight (7.6 percent of females and 9.5 percent of males). **Their weight for their height was nearing overweight;*
- 7.1 percent of students were actually overweight (2.5 percent of females and 11.1 percent of males) (HP2010 goal: 5 percent);
- 26.9 percent thought they were overweight (34.4 percent of females and 20.2 percent of males);
- 40.6 percent were currently trying to lose weight (59.7 percent of females and 23.4 percent of males);
- Only 22.0 percent of students had eaten ≥ 5 servings of fruits and vegetables per day during the 7 days preceding the survey (HP 2010 goals: 75 percent consuming ≥ 2 servings of fruit, 50 percent consuming ≥ 3 servings of vegetables);
- 26.4 percent participated in an insufficient amount of physical activity;
- 50.9 percent were enrolled in a physical education class and 24.4 percent attended a physical education class daily (HP 2010 goal: 50 percent daily PE class attendance);
- 29.2 percent watched 3 or more hours of TV per day on an average school day (HP 2010 goal: 75 percent watch 2 or fewer hours per day).

Figure 6. Abstinence and sexual behaviors, Colorado YRBS, 2001

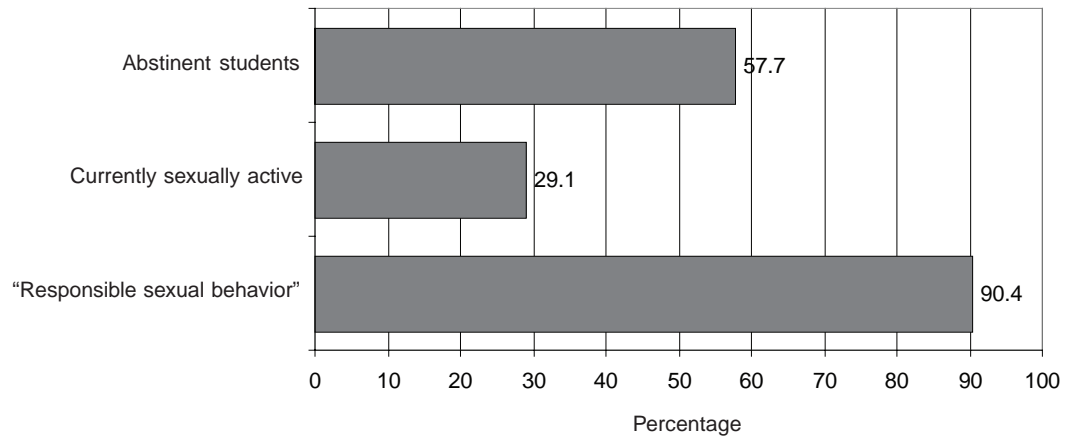
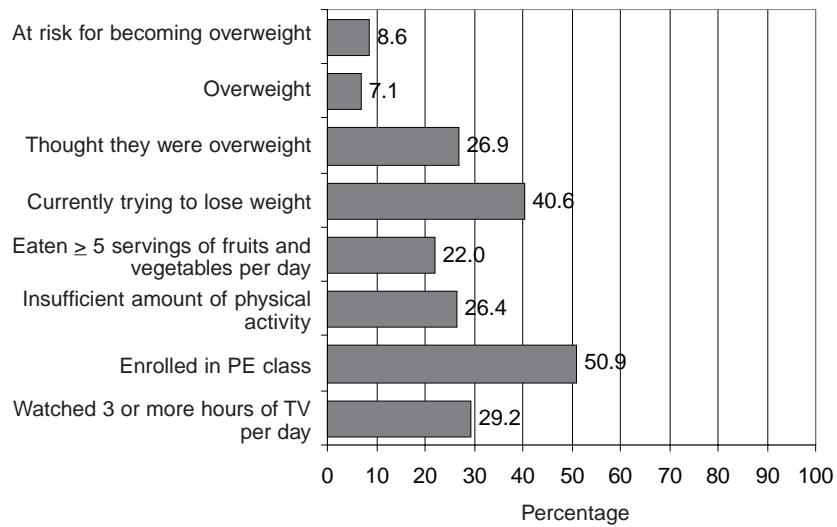


Figure 7. Diet and physical activity, Colorado YRBS, 2001



Conclusion

The Youth Risk Behavior Survey provides a wealth of information about Colorado's youth. Many programs and policies can be implemented and/or monitored with the data available from the YRBS. Additionally, Colorado can track progress against the national statistics and goals for the Nation. These data can also be used to monitor requirements for the No Child Left Behind Act. Moreover, these data can be very useful for communities, schools and programs to prioritize health education and health promotion goals for youth, to monitor progress towards measurable outcomes and to help safeguard the health of youth in Colorado.



Additional Information

The Colorado Department of Education (CDE) receives funding from the Centers for Disease Control and Prevention (CDC) every two years to carry out the Youth Risk Behavior Survey (YRBS) in Colorado. CDE has contracted with the Colorado Department of Public Health and Environment, Health Statistics Section to implement the survey and house the data. The YRBS is administered in randomly selected schools and classrooms every odd-numbered year. The next YRBS will be administered in the fall of 2003. Unlike previous years, the Fall 2003 YRBS will be partnering with the Youth Tobacco Survey (YTS) and the Colorado Youth Survey (CYS) to lessen the impact on school administrators who may receive multiple requests to survey their students. This step towards a coordinated survey effort is unprecedented in Colorado. The Colorado Department of Education, along with other state departments, have been very supportive of this effort to maximize the chance of getting good, reliable data and minimize the amount of requests that schools receive. For more information, call Jodi Drisko at 303-692-2171 or email jodi.drisko@state.co.us

Complete results for the 2001 YRBS are available at <http://www.cdph.state.co.us/hs/coyrbs.html>

References

- 1 U.S. Department of Health and Human Services. *Healthy People 2010*. <http://www.health.gov/healthypeople>
- 2 Suicide Facts, National Institute of Mental Health. <http://www.nimh.nih.gov/research/suifact.htm>
- 3 As defined by the Centers for Disease Control and Prevention, Division of Adolescent and School Health, Youth Risk Behavior Survey.