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## ABSTRACT

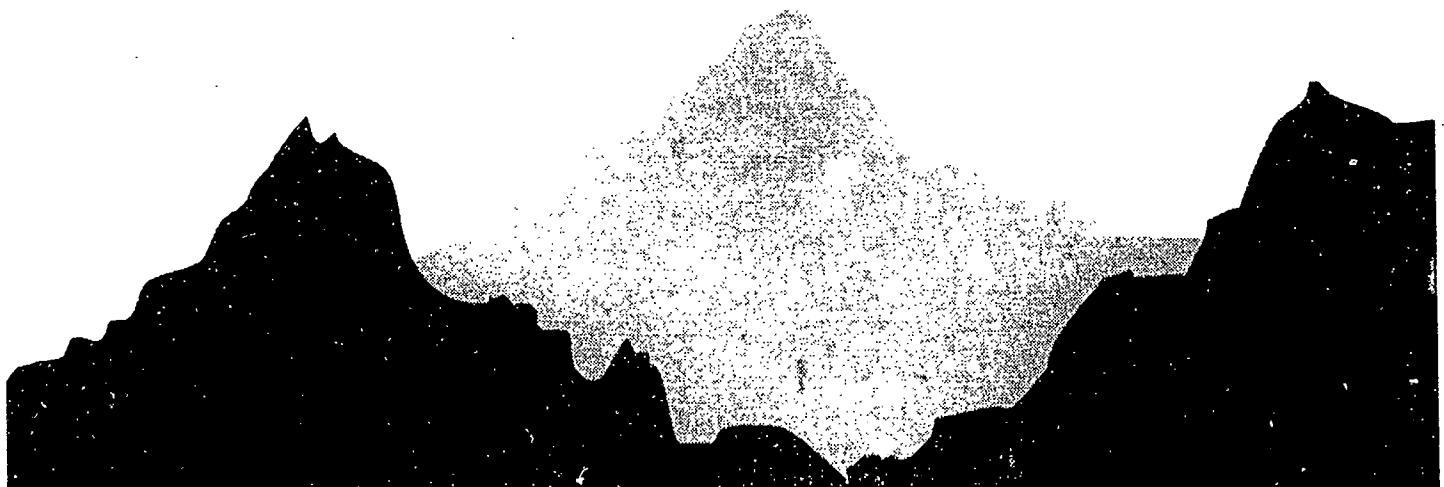
This report describes the results of a survey conducted in 1993. The report was written to stimulate useful discussions among educators, parents, and youth about ways to increase informed support for effective, school-based comprehensive health programs. The survey was designed by national experts to measure the extent to which adolescents engage in behaviors that result in unintentional and intentional injuries; tobacco use; alcohol, and other drug use; sexual behaviors; dietary behaviors that cause health problems; and physical inactivity. Each section includes a summary statement about the consequences of engaging in various health risk behaviors, state-specific statistics regarding the consequences of health risk behaviors, and data presented in graph- and bullet-statement form. Of the 1,585 students who voluntarily participated in the survey, 49.5 percent were female and 50.5 percent were male. Results indicated that students continue to exhibit behaviors that lead to the most serious health and social problems of adolescence and adulthood. These behaviors include not wearing seat belts, carrying guns and other weapons, and high-risk sex. Students' dietary and physical activity patterns also need improvement. Recommendations on establishing school health education programs are offered. (RJM)

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# Colorado Youth Risk Behavior Survey 1993

Conducted by:

Colorado Department of Education  
Prevention Initiatives Unit  
HIV Education Program



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**COLORADO**  
**RESULTS OF THE**  
**1993 COLORADO YOUTH RISK BEHAVIOR SURVEY**

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**December 16, 1993**

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Our gratitude is extended to Westat, Inc., Barbara Williams, Nancy Speicher, Annie Golden, Chuck Woltors, and Trace Searls for assisting in sampling procedures. We also thank Laura Kann, Beth Collins, and Kathy Douglas of the Division of Adolescent and School Health, U.S. Centers for Disease Control and Prevention, for providing the survey instrument and portions of the background information used in preparing this report.

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# Introduction

The health problems experienced by youth are caused by a few preventable behaviors, such as alcohol abuse and unprotected sexual intercourse, which are preventable other behaviors which are established during youth, such as tobacco use, dietary patterns that cause disease, and physical inactivity, lead to health problems later in life. The increasing costs of health care demand that we teach our youth to adopt and maintain healthy behaviors. School health programs are essential to attaining this goal.

Effective school health programs incorporate eight interdependent components:

- health education
- health services
- nurturing biophysical and psychosocial environments
- counseling, psychological, and social services
- integrated efforts of schools and communities to improve health
- food service
- physical education and physical activity
- health programs for faculty and staff.

Schools are one of the more effective and efficient means of providing accurate information and opportunities for youth to develop skills that will enable them to adopt healthy behaviors and avoid preventable health problems.

School-based health education is the cornerstone of successful school health programs. Planned, sequential, kindergarten through grade 12, comprehensive school health programs which integrate health education about several health risk behaviors can be more effective than school efforts to address single categorical topics (e.g., drugs, HIV).

This report was written to stimulate useful discussions among educators, parents, and youth across Colorado about ways to increase informed support for effective, school-based comprehensive health programs. This report also provides information to assist in the design of effective school health programs.

This report describes the results of the *1993 Colorado Youth Risk Behavior Survey*. Health education researchers at the University of Utah conducted the survey and prepared this report under a contract awarded by the Colorado Department of Education.

*Permission is granted to quote or reproduce with credit to the Colorado Department of Education and the University of Utah. For more information about the Colorado Youth Risk Behavior Survey, please contact the HIV Education Program, Colorado Department of Education, (303) 866-6664.*

# Survey Methods

The Youth Risk Behavior Survey was designed by national experts working with the Centers for Disease Control and Prevention to measure the extent to which adolescents engage in behaviors that result in unintentional and intentional injuries; tobacco use; alcohol, and other drug use; sexual behaviors; dietary behaviors that cause health problems; and physical inactivity.

The 1993 Colorado Youth Risk Behavior Survey was approved for use in Colorado schools by the Data Acquisition, Reporting, and Utilization (DARU) Advisory Committee of the Colorado Department of Education. The survey also enjoys the support of other state agencies and community organizations, educators across the state, the federal government, and many national organizations.

Students in 49 schools were randomly selected to participate in the survey. School district superintendents were contacted during November, 1992 to obtain approval to approach some of their principals of randomly selected schools about their participation in the survey. Sufficient time was allowed to gain school board and/or parent approval, and to answer any questions about the

survey. The sampling frame did not include schools from Colorado's largest city. Of the 49 randomly selected schools, 17 (35%) agreed to participate in the survey on which this report is based. *This rate of response was insufficient to allow results to be statistically representative of all Colorado students in grades 9 through 12. Nonetheless, the results provide important descriptions of the health risk behaviors of the survey participants.*

The two reasons most often cited for not participating were: 1) Other surveys or educational activities had taken precedence and time was not available, and 2) Concerns that some questions about adolescent sexual behaviors would lead to increased sexual behaviors among students or were otherwise locally inappropriate.

During March, 1993, students in randomly selected second-period classes were asked to complete the 84-item, multiple choice YRBS survey (Appendix). Locally identified contact persons were provided with all information and materials necessary to administer the survey and return the completed data sheets for processing.

Survey administrators were provided with detailed written instructions to ensure uniform survey administration across sites. To encourage accurate responses to sensitive questions, a strict protocol was followed to protect the privacy and confidentiality of all participating students.

Participation in the survey was voluntary. Students could decline to participate, turn in blank or incomplete survey forms, or stop completing the survey at any time. Nearly all students in participating classrooms participated fully in the survey.



# Survey Results

## Youth Risk Behavior Survey

Of the 1,585 students participating in the 1993 Colorado Youth Risk Behavior Survey, 49.5% (782) were female and 50.5% (798) were male. Five students did not identify their gender. Thirty-one percent of the students were enrolled in the 9th grade, 27.0% in the 10th grade, 21.5% in the 11th grade, and 20.1% in the 12th grade. Six students (0.4%) did not identify their grade.

Of the students responding to the survey, 75.0% described themselves as white, 4.5% as black, 11.2% as Hispanic, and 8.4% described themselves as other. Sixteen students (1.0%) did not specify group membership.

When asked "Compared to other students in your class, what kind of student would you say you are?" Nearly all students (93.1%) described themselves as at or above the middle.

The remainder of this report is divided into sections for each priority health risk behavior. The following information is included in each section:

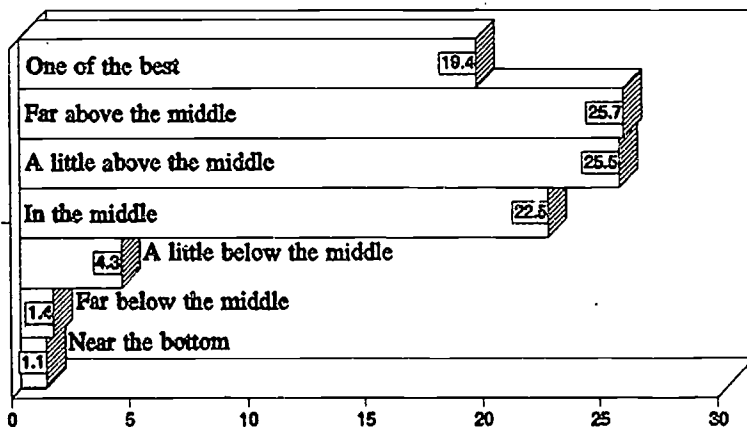
- Summary statements from the U.S. Centers for Disease Control and Prevention (CDC) about the consequences of engaging in various health risk behaviors
- Colorado-specific statistics regarding the consequences

of engaging in health risk behaviors

- Colorado Adolescent Health Objectives for the Year 2000 (Advisory Council on Adolescent Health with the Colorado Department of Health, 1992),
- 1993 Colorado YRBS results depicted in graph- and bullet-statement-form.

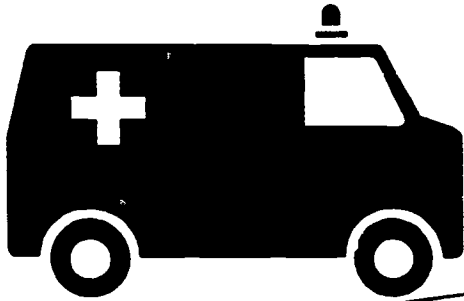
This presentation format was designed to allow the reader to draw conclusions about the importance of the priority health risk behaviors and the extent to which Colorado students who completed the survey engage in these behaviors.

Although direct comparisons to other survey results or to any individuals or to groups of students who did not complete the survey may be unwarranted, these results provide important information about the health risk behaviors of Colorado youth who completed the survey.



Students' Perceptions of the Kind of Students They Are

# UNINTENTIONAL AND INTENTIONAL INJURIES



Fort Collins Coloradoan September 19, 1993

## Double suicide only leaves questions

By Jana Miller

The Daily Sentinel August 24, 1993

## 2 killed in youth violence

The Rocky Mountain News, August 24, 1993

## Teen shot while sitting in his yard

Just minutes before, the  
and friends

The Fort Collins Coloradoan, August 21, 1993

## Motorcycle hits police cruiser at estimated 95 mph

The Daily Sentinel, August 31, 1993

## Student arrested

Fort Collins Coloradoan September 7, 1993

## Teen critically hurt after two-car crash

Two teen-agers from a local area suffered head injuries early Friday when the motorcycle they were riding struck a local police car at an estimated 95 miles an hour, authorities said.

His passenger, 16, was taken to another ambulance to another hospital where she was listed in critical condition Friday.

Investigators said neither rider was wearing a helmet. The driver, 19, was airlifted to a local hospital, where he was listed in critical condition Friday night.

While he sat in his front baby-sitting several young children, police said.

The 17-year-old was shot into the group to break it up but no one was hit, police said.

The 17-year-old was shot after several members got into an argument over a car parked in a neighboring vacant lot, police said.

The man with the gun fled before police arrived.

A local teen-ager is in the neurological intensive care unit in critical condition after an afternoon car accident on her way to work.

Both men were treated and released from a local hospital with minor scrapes and bruises. The mother was in fair condition with a broken hip and upper arm.

The victim, 17, suffered head and abdominal injuries in a two-car crash at a local intersection about 3 p.m. Monday.

Meanwhile, the victim remained hospitalized after undergoing exploratory abdominal surgery.

Police, who haven't issued any citations yet, say there is evidence that the victim may have been late to work and may have run a red light.

Everyone except the mother was wearing a seat belt, which lessened injuries, according to the police officer.

Local police officer said the victim was southbound in her Ford Mustang when she was broadsided by a Chevrolet Suburban driven eastbound by a 45 year-old local. The drivers parents were passengers in the Suburban.

"Both men walked away with essentially little or no injuries because of the seat belt," he said, "The victim probably would have been thrown from the car and probably would not have survived without a seat belt."



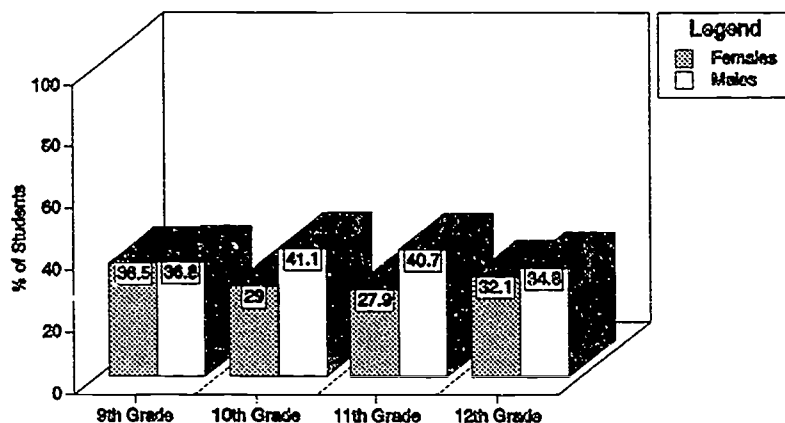
# Unintentional and Intentional Injuries

In Colorado, 52 percent of all adolescent deaths in 1990 were due to unintentional injuries (Colorado Department of Health, 1986-90). Unintentional injuries are the number one cause of death and disability among 10-19 year-olds, accounting for more than half of all adolescent deaths in the United States (American Medical Association, 1990). Unintentional injuries include motor vehicle crashes, burns, poisonings, drownings, sports injuries, and pedestrian and bicycle crashes (Advisory Council on Adolescent Health, 1992).

Intentional injuries include homicide, suicide or suicide attempts, and assault and child abuse (Advisory Council on Adolescent Health, 1992). In Colorado, 12.9% of fatalities in youth aged 15-24 in 1992 were due to homicide and 18.1% of deaths in that age group were due to suicide (Colorado Department of Health, 1993a).

## Seat Belt Use

In 1992, 520 people of all ages were killed in motor vehicle accidents in Colorado. Of the 326 motor vehicle accident fatalities investigated by the



Percentage of Participating Students Who Never, Rarely, or Only Sometimes Wear a Seatbelt When Riding in a Car Driven By Someone Else

Colorado State Patrol, 195 (59.8%) were not wearing a seat belt (Colorado Department of Public Safety, 1993). Nationally, seat belt use is estimated to reduce car accident fatalities by 40% to 50% and serious injuries by 45% to 55% (National Committee for Injury Prevention and Control, 1989). Increasing use of automobile safety restraint systems to 85% could save an estimated 10,000 American lives yearly (U.S. Department of Health and Human Services, 1990a).

## Colorado YRBS Results:

- ◆ 64.9% of all participating students "Most of the Time" or "Always" wore a seatbelt when riding in a car driven by someone else.
- ◆ A higher percentage of the 12th grade students surveyed "Always" wore seatbelts (42.0%) than 9th grade students (28.3%).
- ◆ 35.1% of all participating students "Never," "Rarely," or "Sometimes" wore a seatbelt when riding in a car driven by someone else.

**Colorado Year 2000 Objective: Increase the percent of high school students who report that they wear a seat belt most of the time or always to 65 percent.**

*Objective based on 1990 survey data and vital statistics.*



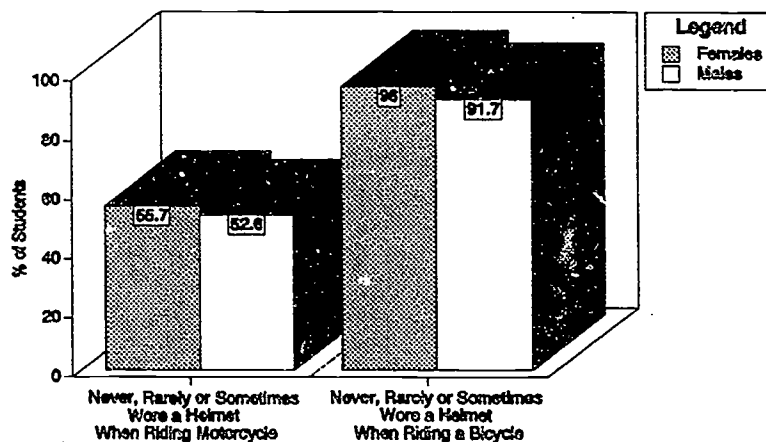
## Motorcycle and Bicycle Safety

Head injury is the leading cause of death in motorcycle and bicycle crashes (National Committee for Injury Prevention and Control, 1989). On average, six Colorado adolescents die each year from motorcycle-related injuries. Three adolescents die each year, on average, in bicycle-related motor vehicle crashes (Colorado Department of Health, 1986-1990) and another 325 adolescents are injured in bicycle-related motor vehicle crashes (Colorado Department of Revenue, 1986-1990).

Unhelmeted motorcyclists are two times more likely to incur a fatal head injury and three times more likely to incur a nonfatal head injury than helmeted riders (National Highway Traffic Safety Administration, 1980). In addition, the risk of head injury for unhelmeted bicyclists is more than 6 1/2 times greater than for helmeted riders (Thompson, Rivara, & Thompson, 1989).

### Colorado YRBS Results:

- ◆ Of the students surveyed who rode a motorcycle (33.4%) in the past 12 months, one out of three of these students (36.0%) "Always" wore a helmet.
- ◆ 59.4% of 11th grade males "Never," "Rarely," or "Sometimes" wore a helmet when riding on a motorcycle.
- ◆ Of the students who rode a bicycle in the past 12 months (78.8%), 6.2% "Most of the Time" or "Always" wore a helmet.



Percentages of Participating Students Who Reported Never, Rarely, or only Sometimes Wearing a Helmet When Riding a Motorcycle or Bicycle

### Motor Vehicle Safety

Car accidents accounted for 37% of the deaths of adolescents in Colorado (Colorado Department of Health, 1986-1990). About 2,000 adolescents aged 10 to 20 sustained non-fatal injuries as a result of motor vehicle crashes (Colorado Department of Revenue, 1986-1990). Motor vehicle crash injuries, more than half of which involve alcohol (U.S. Department of Health and Human Services, 1990b), are the leading cause of death among

youth aged 15-24 in the U.S. (National Highway Traffic Safety Administration, 1988). Alcohol-related traffic crashes cause serious injury and disability and rank as the leading cause of spinal cord injury among adolescents and young adults (National Highway Traffic Safety Administration, 1987). Adolescents account for 20% of all alcohol-related fatal crashes in Colorado (Advisory Council on Adolescent Health 1992).

#### Colorado Year 2000 Objectives:

*Reduce motor vehicle deaths among adolescents ages 15-19 to no more than 25 per 100,000.*

*Reduce alcohol-related motor vehicle crashes of drivers ages 16-20 to no more than 12 per 100,000.*

*Reduce the motor vehicle injury rate for adolescents 16-20 to 2,300 per 100,000.*

*Objectives based on 1990 survey data and vital statistics.*



## Carrying of Weapons

### Colorado YRBS Results:

During the previous 30 days:

- ◆ One in three (34.2%) of participating students rode in a car driven by someone who had been drinking alcohol; 30.4% of these students did so four or more times.
- ◆ More than one in four (28.3%) of participating 12th grade males drove while drinking alcohol; 33.2% of these students did so four or more times.
- ◆ 6.8% of participating male students under age 16 drove when they had been drinking alcohol.

### Water Safety

Drowning is the third leading cause of injury deaths, with drowning rates highest for children less than 5 years of age and young adults aged 15-24 (Gulaid & Sattin, 1988). In 1990, seven adolescents between age 10 and 19 drowned in Colorado (Colorado Department of Health, 1986-1990).

- ◆ Of those survey participants who went swimming in the past 12 months (86.4%), 35.0% "Never" or "Rarely" swam where an adult or lifeguard was watching them.

Homicide claimed the lives of 17 adolescents in Colorado in 1990; firearms claimed the lives of 50 adolescents (Colorado Department of Health, 1986-1990).

More than one in five Colorado adolescent deaths is due to firearms (Advisory Council on Adolescent Health, 1992). Approximately nine out of ten homicide victims in the United States are killed with a weapon of some type, such as a gun, knife, or club. Homicide is the leading killer of black adolescents and young adults (U.S. Department of Health and Human Services, 1990b).

The immediate accessibility of a firearm or other lethal weapon often is the factor that turns a violent altercation into a lethal event (Rivara, 1985). Firearm-related suicides, which tripled between 1950 and 1980, account for 60% of adolescent and young adult suicides (U.S. Department of Health and Human Services, 1990b). Unintentional firearm-related fatalities also are a critical problem among children and young adults in the United States (Wood & Mercy, 1988).

### Colorado YRBS Results:

- ◆ 36.5% of all males surveyed carried a weapon in the past month. More than one-third (38.6%) of these students carried a gun.

- ◆ 12th grade males were much less likely to carry a weapon (20.8%) than male students in Grades 10 and 11 (40.3%)
- ◆ Fewer than seven percent (6.7%) of all females surveyed reported having carried a weapon in the past 30 days.
- ◆ More than one-half (54.3%) of the males who carried a weapon during the previous 30 days did so on more than five days.
- ◆ 21.6% of all males surveyed carried a weapon on school property during the previous 30 days.

### Violence In Schools

The violence of the streets does not stop at the school door. School yard altercations are increasingly settled with guns and knives. In the 1990-1991 academic year, more than 7,000 Denver Public School students received out-of-school suspensions, most due to aggressive or even violent acts (Gould, 1992).

### Colorado YRBS Results:

- ◆ 12.5% of all participating males and 4.9% of all participating females were threatened or injured with a weapon on school property during the past 12 months.

*Colorado Year 2000 Objective: Reduce by 20 percent of male high school students reporting that they had carried a weapon within the prior 30-day period to no more than 27.5 percent.*

*Objective based on 1990 survey data and vital statistics.*





- ◆ 4.2% of all students surveyed did not go to school at least once in the previous 30 days because they felt they would be unsafe at school or on their way to or from school.
- ◆ 37.4% of all students surveyed had property, such as a car, clothing, or books, stolen or deliberately damaged on school property in the past year.

### Physical Fighting

Homicide is the second leading cause of death among all adolescents and young adults and is the leading cause of death among black youth (National Center for Health Statistics, 1990a). Fighting is the most important antecedent behavior for a great proportion of homicides among adolescents (U.S. Department of Health and Human Services, 1990a). While adolescents under age 18 comprise only eight percent of Colorado's total population, they commit 18 percent of all crimes (U.S. Department of Justice, 1990).

**Colorado Year 2000 Objective: Reduce the five-year average suicide rate for teens 15-19 in Colorado to 15.0 per 100,000.**

*Objective based on 1990 survey data and vital statistics.*

### Colorado YRBS Results:

- ◆ 47.6% of participating males and 29.4% of participating females were in a physical fight during the previous 12 months. 60.4% of all students have been in a physical fight. Two out of three of these fights (62.9%) were with a family member or a friend.
- ◆ 32.0% of participating 9th grade males and 24.3% of all participating males were in a physical fight on school property in the past year.

### Suicide

During 1992, 55 youth aged 13-19 committed suicide in Colorado. This was the second leading cause of death in this age

range (Colorado Department of Health, 1993b). Nationally, suicide is the third leading cause of death among youth aged 15-24 and the second leading cause of death among white males aged 15-24 (National Center for Health Statistics, 1990b). The suicide rate for persons aged 15-24 has tripled since 1950 (U.S. Department of Health and Human Services, 1990b).

### Colorado YRBS Results:

- ◆ 27.7% of all participating female students and 15.9% of participating males seriously considered attempting suicide during the previous 12 months. Of these students, more than four out of five (88.5%) had made a plan about how they would attempt suicide.
- ◆ 36.2% of participating 9th grade females students reported that they had seriously considered suicide, as compared to 12th grade females (19.2%) and all male students (15.9%).
- ◆ Of the students who seriously considered and made a plan for attempting suicide, 47.1% actually made an attempt. Nearly one-half (48.4%) of these students made more than one attempt to commit suicide.

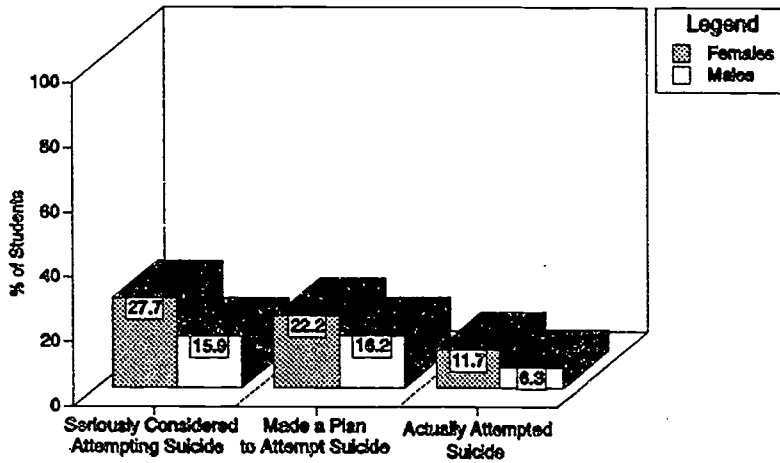
**Colorado Year 2000 Objectives:**

**Reduce the death rate from homicide among adolescents 15-19 to below 5.5 per 100,000.**

**Reduce by 25 percent the homicides committed by juveniles ages 11 through 19 to no more than 19 percent.**

**Reduce by 50 percent the confirmed reports of child abuse perpetrated by adolescents ages 13 through 17 to 3.3 percent and reduce by 25 percent child abuse perpetrated by young adults ages 18 through 25 to 21 percent.**

*Objectives based on 1990 survey data and vital statistics.*



Percentages by Gender of Students who Reported Seriously Considering Suicide, Making a Plan for Suicide and/or Actually Attempting Suicide in the Previous 12 Months.

- ◆ Of those students surveyed who reported actually attempting suicide (9.1%), 29.7% reported that the attempt resulted in injury, poisoning, or overdose that had to be treated by a doctor or nurse.

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# TOBACCO, ALCOHOL, AND OTHER DRUG USE



The Daily Sentinel August 28, 1993.

## Local teen-ager faces alcohol misdemeanor charges

Fort Collins Coloradoan September

## Campaign targets inhalant abuse

Drug counselors and educators will launch a nationwide campaign this fall, including a major media blitz, to alert the public about inhalant abuse — the "epidemic" experts say the drug war has long ignored.

About 17 percent U.S. teens have to get high by sniffing products ranging from aerosol deodorant to gasoline, an "unacceptably high" number of teens, according to the government's National Institute on Drug

The Daily Sentinel, September 13, 1993

## Police arrest area sophomores on suspicion of marijuana possession

By Greg Grant

Three sophomores were arrested Thursday at a local school on suspicion of drug possession.

Area police said the students were arrested at 8:30 a.m. on the campus.

The students were released to the custody of their parents and their names were not released.

Two of the students could be charged with possession of marijuana. The other student could be charged with possession of marijuana with the intent to distribute.

The police officer said that each year area officers write about six tickets to high school students for possession of drugs. The officer said it's a trend he would like to see decrease. His officers will crack down on all juvenile crimes, not just crimes of violence.

Expelling them from school might seem harsh, but principal said it is something he will do consistently.

"This is just something that is automatic at school," principal said. "We just won't tolerate this kind of activity."

The bottom line is that students need to be treated in school in the same manner they would anywhere else.

"If two kids were fighting at a McDonald's, the manager isn't going to take them outside and say, 'Don't do it anymore,'" the principal said. "If there's a problem, they're going to call the police. That's what we're going to consistently do all year."

By taking a strong stance, students are provided with a better learning environment and the community can see that an effort is being made to stop a problem before it gets out of hand.

"I think the public needs to know our schools are safe," the principal said. "We have students and teachers working together to keep an eye on things. So far it's been very successful."





# Tobacco, Alcohol, and Other Drug Use

## Tobacco Use

In 1991, smoking-related illnesses, including cardiovascular disease, chronic obstructive pulmonary diseases, and cancer of the mouth, lungs, and bladder, accounted for 4,582 deaths in Colorado (Colorado Department of Health, 1993a). The annual estimated health-care cost of smoking in Colorado is \$1.1 billion (USA Today, 1990).

Tobacco use is the single most important preventable cause of death in the United States, accounting for one of every six deaths. Smoking is a major risk factor for heart disease; chronic bronchitis; emphysema; and cancers of the lung, larynx, pharynx, mouth, esophagus, pancreas, and bladder. If 29% of the 70 million children now living in the United States smoke cigarettes as adults, then at least

five million of them will die of smoking-related diseases (Office on Smoking and Health, 1989).

In addition, smoking is related to poor academic performance and the use of illicit drugs and alcohol (Johnston, O'Malley, & Bachman, 1987). Over one million teenagers begin smoking each year (U.S. Department of Health and Human Services, 1990b).

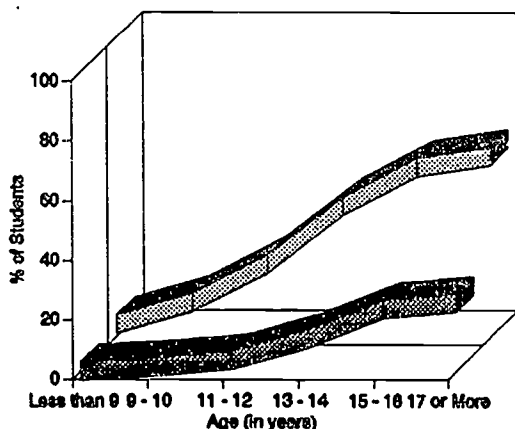
Oral cancer occurs more frequently among smokeless tobacco users than nonusers and may be 50 times as frequent among long-term snuff users. Smokeless tobacco use can lead to the development of oral leukoplakia and gingival recession and can cause addiction to nicotine (Public Health Service, 1986). Between 1970 and 1986, the prevalence of snuff use increased 15 times and chewing tobacco use increased four times among men age 17-19 (Office on Smoking and Health, 1989).

### Colorado Year 2000 Objectives:

*Reduce by 50 percent the number of male adolescents who smoke regularly (defined as more than 25 out of the previous 30 days) to 6.4 percent and the number of female adolescents who smoke regularly to 8.8 percent.*

*Reduce by 50 percent the number of male high school students who report having used chewing tobacco or snuff in the past 30 days to 11 percent.*

*Objectives based on 1990 survey data and vital statistics.*



Age When 12th Grade Students Reported Smoking a Whole Cigarette for the First Time and/or Age When 12th Grade Students Reported They Began Smoking Regularly

**Legend**  
■ First Time Smoked  
■ Start Reg. Smoking

### Colorado YRBS Results:

- ◆ 67.4% of all students surveyed had tried cigarette smoking.
- ◆ 18.1% of all students surveyed tried to quit smoking cigarettes during the previous six months.
- ◆ 25.0% of all students had smoked regularly, that is, at least one cigarette every day for 30 days.
- ◆ 30.4% of all students smoked cigarettes during the previous 30 days.



- ◆ 10.0% of all male students surveyed smoked cigarettes all 30 of the previous 30 days.
- ◆ 12.7% of all students surveyed smoked cigarettes on school property during the preceding 30 days.
- ◆ 27.2% of all males surveyed used chewing tobacco or snuff during the prior 30 days as compared to 4.2% of the females.
- ◆ 18.8% of all males surveyed had used chewing tobacco or snuff on school property during the former 30 days.

### Alcohol Use

Alcohol is a major factor in approximately half of all homicides, suicides, and motor vehicle crashes (Perrine, Peck, & Fell, 1988), which are the leading causes of death and disability among young people (U.S. Department of Health and Human Services, 1990b). Heavy drinking among youth has been linked conclusively to physical fights, destroyed property, academic and job problems, and trouble with law enforcement authorities (Dryfoos, 1987). Approximately 100,000 American deaths per year are attributable to misuse of alcohol (U.S. Department of Health and Human Services, 1990b). In the 1990-1991 academic year, 198 Denver Public Schools' students were suspended for either being drunk or for drinking in school (Gould, 1992).

### Colorado Year 2000 Objectives:

*Reduce the percentage of high school students who report having drunk alcohol in the past month to no more than 40 percent.*

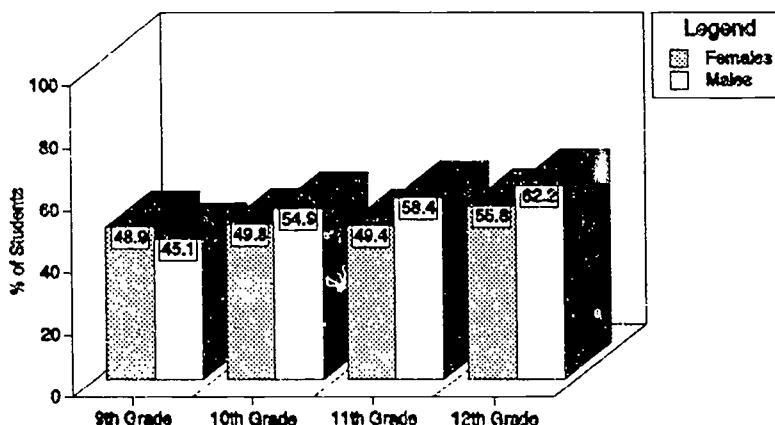
*Reduce the percentage of high school students who report having drunk five drinks in a row in the past month to no more than 30 percent.*

*Reduce the percentage of high school students who report that they had their first full drink of alcohol before the age of 15 to no more than 55 percent.*

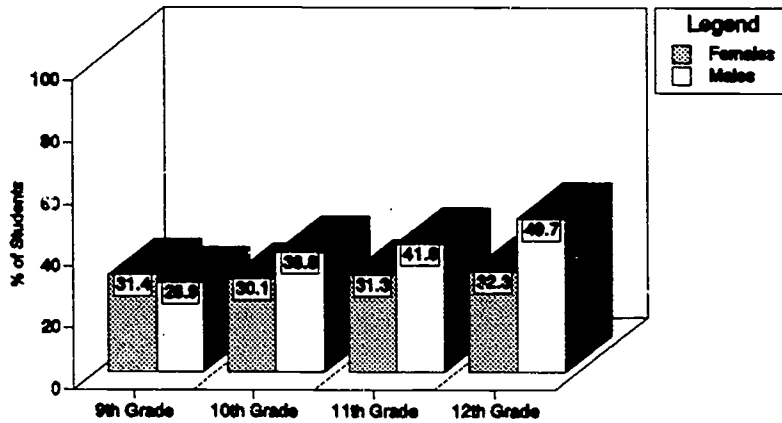
*Objectives based on 1990 survey data and vital statistics.*

### Colorado YRBS Results:

- ◆ 81.5% of all students surveyed had tried drinking alcohol. Nearly one-half (47.5%) of these students had their first drink before age 13.
- ◆ 52.5% of all students surveyed drank alcohol during the previous 30 days.
- ◆ 43.1% of students surveyed estimated they had had at least one drink of alcohol on at least 20 days in their life.
- ◆ 31.6% of participating 12th grade males and 14.9% of participating 12th grade females estimated they had had at least one drink of alcohol 100 or more days in their life.



Percentages of All Students Who Drank Alcohol On At Least One Day During the Previous 30 Days.



**Percentages of All Students Who Had Five or More Drinks in a Row on at Least One Day During the Previous 30 Days**

- ◆ 42.3% of 12th grade males surveyed had had a drink on at least three days of the preceding 30.
- ◆ 49.7% of 12th grade males, and 28.9% of 9th grade males surveyed had had five or more drinks in a row on at least one day during the previous month.
- ◆ 7.7% of all students had had at least one drink of alcohol on school property during the previous 30 days.

Department of Health and Human Services, 1990a). Between 1985 and 1988, adolescents under 20 years of age accounted for 24-27

percent of all drug-only-related emergency room admissions (Gould, 1992). Despite improvements in recent years, illicit drug use is greater among high school students and other young adults in America than in any other industrialized nation in the world (Johnston, O'Malley, & Bachman, 1989).

**Colorado YRBS Results:**

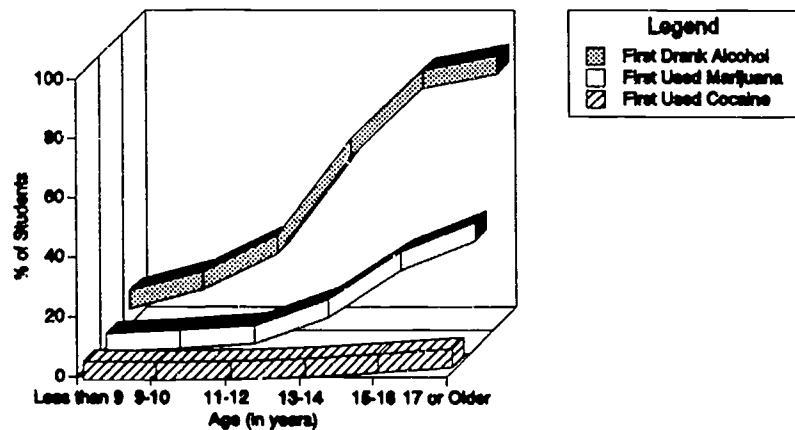
- ◆ 35.6% of all students have used marijuana. Nearly one-half (48.9%) of these students have used marijuana ten or more times and 17.7% reported they have used marijuana 100 or more times.
- ◆ 20.6% of all students surveyed used marijuana during the previous 30 days.

*Colorado Year 2000 Objective: Reduce the percentage of high school students who have used marijuana in the past month to no more than 10 percent.*

*Objective based on 1990 survey data and vital statistics.*

**Other Drug Use**

One in four American adolescents is estimated to be at very high risk for the consequences of alcohol and other drug problems (Dryfoos, 1987). Drug abuse is related to morbidity and mortality due to injury, early unwanted pregnancy, school failure, delinquency, and transmission of sexually transmitted diseases, including HIV infection (U.S.



**Age When 12th Grade Students First Tried Drinking Alcohol, Using Marijuana and Using Cocaine**

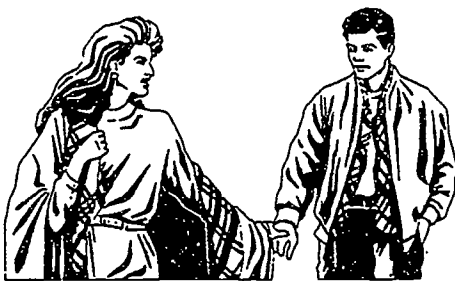


- ◆ 25.2% of males surveyed and 15.9% of females surveyed used marijuana during the previous 30 days; 29.6% of those students had used marijuana on school property.
- ◆ Nearly two-thirds (62.5%) of those students surveyed who had tried cocaine (5.6%) had used the crack or freebase form of cocaine.
- ◆ One-third (35.7%) of those students surveyed who had tried cocaine had used it during the previous 30 days.
- ◆ 20.7% of all males surveyed and 16.6% of all females surveyed had ever used other drugs, such as pills without a doctor's prescription, LSD, PCP, ecstasy, mushrooms, speed, ice, or heroin.
- ◆ 4.9% of all males surveyed had taken steroid pills or shots without a doctor's prescription.
- ◆ 3.4% of all males surveyed reported that they had injected illegal drugs.
- ◆ 29.7% of all males surveyed and 20.3% of all females surveyed reported they had been offered, sold, or given illegal drugs on school property during the previous 12 months.

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# SEXUAL BEHAVIORS THAT RESULT IN HIV INFECTION, OTHER SEXUALLY TRANSMITTED DISEASES, AND UNINTENDED PREGNANCY



The Daily Sentinel, August 31, 1993

## So many people still see it as a gay disease

The bond between companion and client is very strong. A companion advocate is first, and foremost, a best friend. We're sharing what is probably the most profound time in a person's life. It's a very introspective time when all of us think more ab

A lot of people are just scared to death when they find out they have the disease. A typical scenario for us is someone who was born and raised near us or in an outlying communities moves away, to New Mexico or Florida or New York or California or

The Daily Sentinel,

## AIDS Facts

The human immunodeficiency virus (HIV) is spread by sexual contact with an infected person, by needle-sharing among injecting drug users or through transfusions of infected blood.

In the United States needle-sharing and sexual encounters cause 87 percent of AIDS cases in adults over 24, and 75 percent in cases among 13- to 24-year-olds.

The Centers for Disease Control and Prevention estimate that 1 million Americans — 250 people — are infected.

Although teen-age cases currently account for 10 percent of the nation's total, the rate of new cases doubles every five years.

Nearly one-fifth of AIDS cases are in their 20s, and the rate is as long as 10 years between infection and the onset of symptoms.

The Rocky Mountain News, August 20, 1993

## Girls' gonorrhea rate high

Teen-age girls have the country's highest rate of gonorrhea infection — a startling 22 times higher than women 30 and older, federal health officials reported.

They warned that gonorrhea, which could signal possible AIDS infection, also could make teen-agers more vulnerable to AIDS.

Gonorrhea is one of the nation's most prevalent sexually transmitted diseases. About 544,000 cases were diagnosed in 1991, a third of them in teenagers. It is curable but can cause infertility, heart and joint problems if not caught early.

For every 100,000 girls ages 15 to 19, 1,043 cases of gonorrhea were reported in 1991, the latest data available. The rate was 595 for women in their 20s and 47.5 for those age 30 and older. Boys ages 15 to 19 recorded the second-highest rate of infection: 882. For men in their 20s the rate was 779 and for men 30 and older it was 145.

In younger girls — ages 10 to 14 — there were 99 cases per 100,000 in 1991, up from 65 in 1981, but down from 102.3 in 1990.



# Sexual Behaviors

## HIV/AIDS Risk and Prevention Education

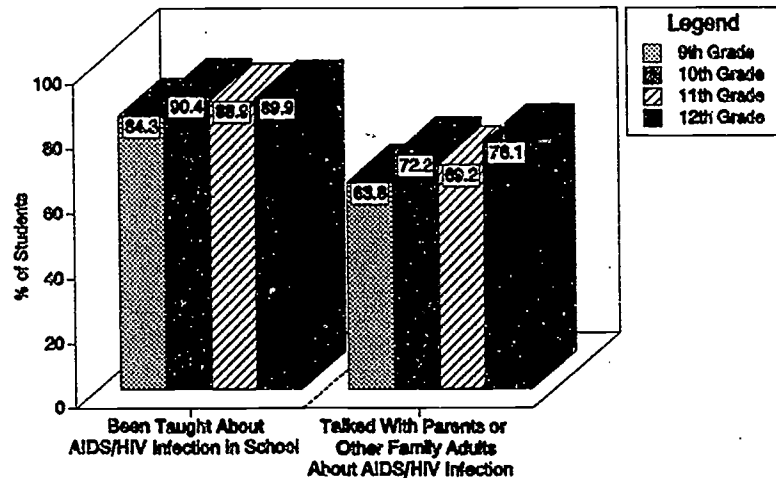
By May 31, 1993, 3,324 cases of AIDS and 1,977 deaths attributed to AIDS were reported in Colorado. Another 3,790 people are reported to be infected with HIV (Colorado Department of Health, 1993c).

Acquired immunodeficiency syndrome (AIDS) is the only major disease in the U.S. for which mortality is increasing (U.S. Department of Health and Human Services, 1990b). AIDS is the seventh leading cause of years of life lost before age 65 (Centers for Disease Control, 1989a) and is the seventh leading cause of death for youth aged 15-24 (National Center for Health Statistics, 1989).

In a 1986 national survey, teens said they would like to communicate more about sex and HIV infection with their parents. Half of the teens in a 1988 survey said their parents had not provided enough or any information about sex and AIDS that they wanted to talk more about it with their parents (Miller & Laing, 1989).

## Sexual Behaviors

Major risks of early sexual activity include unwanted pregnancy and sexually transmitted diseases (STDs), including HIV. Number of partners and age at first intercourse are associated with STDs. Alcohol and drug use may be predisposing factors for initiation of sexual activity and



Percentage of Students Surveyed Who Had Been Taught in School and/or Had Talked With Parents or Other Family Adults About HIV Infection and AIDS

unprotected intercourse (Hofferth & Hayes, 1987). Nationally, the average age of first sexual intercourse is 16.2 for girls and 15.7 for boys (Hayes, 1987). About one fourth of girls and one third of boys have had intercourse by age 15 (Baldwin, 1990; Sonenstein, Pleck, & Ku, 1989). Among all teens, 77% of females and 86% of males are sexually active by age 20 (National Center for Health Statistics, 1988).

## Colorado YRBS Results:

- ◆ 48.2% of all students surveyed had had sexual intercourse.
- ◆ 25.8% of 12th grade females surveyed and 22.2% of 12th grade males surveyed had had sexual intercourse with four or more partners.

### Colorado Year 2000 Objectives:

*Double the percentage of teens reporting the use of reliable contraception during last intercourse, increasing the use of birth control pills (or progesterone implants) to 25 percent and condoms to 50 percent.*

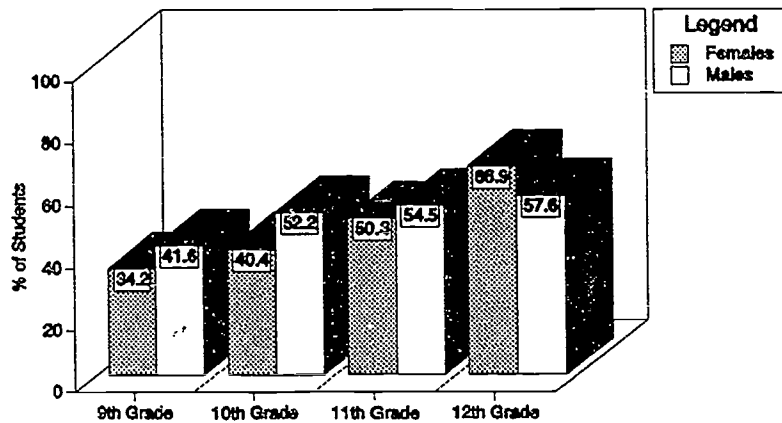
*Reduce the fertility rate for teens 15-17 by 10 percent to 29.5 per 1,000.*

*Objectives based on 1990 survey data and vital statistics.*





- ◆ One-third (35.5%) of students who had had sexual intercourse reported they did not have sexual intercourse during the previous three months.
- ◆ Of those students surveyed who had had sexual intercourse during the previous three months (31.1%), three out of four (75.9%) students had sex with only one partner.
- ◆ Of those students surveyed who had ever had sexual intercourse (48.2%), one in four (23.7%) drank alcohol or used drugs before they had sexual intercourse the most recent time.
- ◆ Of those students surveyed who had had sexual intercourse during the previous three months, 60.5% of males and 49.6% of females reported that a condom was used during last sexual intercourse.



Percentages of Students Surveyed Who Have Had Sexual Intercourse

### Unintended Pregnancies

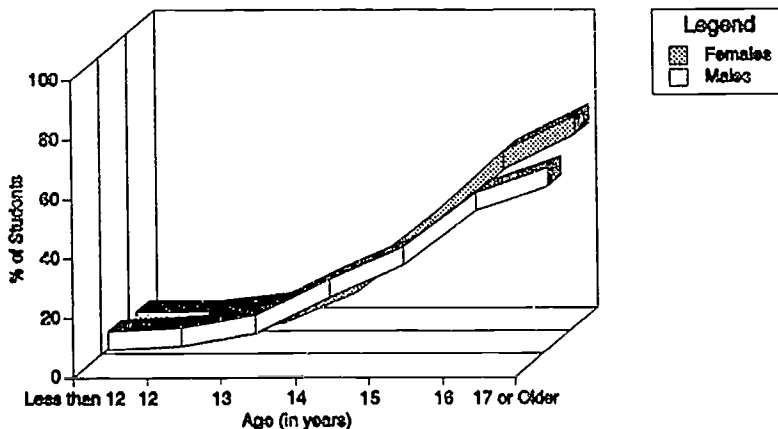
One of ten teenage girls in the U.S. becomes pregnant each year, over 400,000 teens have abortions, and nearly 470,000 give birth (Henshaw & Van Vort, 1989; Hofferth & Hayes, 1987).

In Colorado during 1990, mothers under the age of 19 gave birth to 6,066 babies. Additionally,

3,072 abortions were induced for girls aged 13-19 in Colorado during 1990. (Colorado Department of Health, 1993a). Nationally, teens account for one-third of all unintended pregnancies, with 75% of teenage pregnancies occurring among teens who did not practice contraception (Westoff, 1988). The U.S. leads all other developed countries in adolescent pregnancy, abortion, and childbearing (Hofferth & Hayes, 1987).

### Colorado YRBS Results:

- ◆ 12.9% of 12th grade females surveyed and 6.9% of 12th grade males surveyed reported having been pregnant or gotten someone pregnant. No female had been pregnant more than once.
- ◆ 33.1% of 12th grade students surveyed and 15.4% of 10th grade students surveyed who had sexual intercourse during the previous three months reported that birth control pills were used to prevent pregnancy.

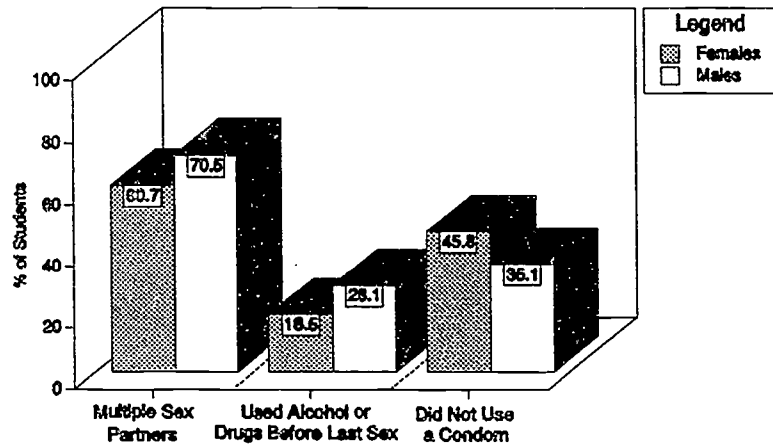


Age of First Sexual Intercourse Reported by 12th Grade Students



## Sexually Transmitted Diseases

Every year, 2.5 million U.S. teenagers are infected with an STD; this number represents approximately one out of every six sexually active teens and one-fifth of the national STD cases (Centers for Disease Control, 1989b). Of the 12 million new cases of STD per year, 86% are among people aged 15-29 (Division of Sexually Transmitted Diseases, 1990). STD may result in infertility, adverse effects on pregnancy outcome and maternal and child health, and facilitation of HIV transmission (U.S. Department of Health and Human Services, 1990b). During 1992, 1,513 Colorado teenagers aged 13-19 were diagnosed with gonorrhea and 17 were diagnosed with syphilis (Colorado Department of Health, 1993a).



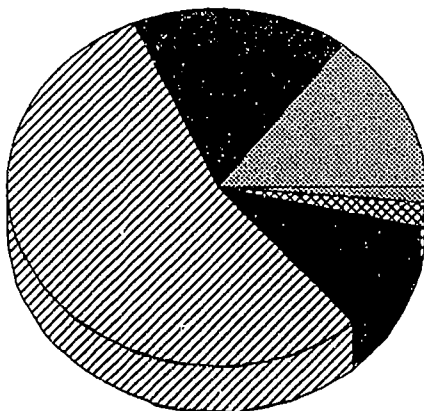
Percentages of Those Students Who Have Had Sexual Intercourse (48.2%) Who Have Had Multiple Sex Partners or Engaged in Other High-Risk Sexual Behaviors During Last Intercourse

### Colorado Year 2000 Objectives:

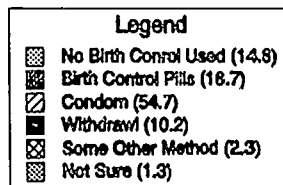
*Increase the use of condoms at most recent intercourse by sexually active teenagers to 10 percent.*

*Reduce the rate of gonorrhea in adolescents ages 15-19 to no more than 400 per 100,000.*

*Objectives based on 1990 survey data and vital statistics.*



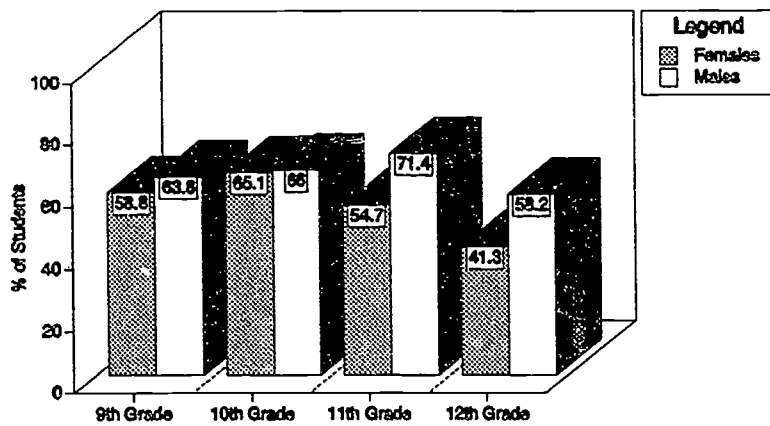
Kinds of Birth Control Used by Students the Last Time They Had Intercourse



### Colorado YRBS Results:

- 4.8% of those students surveyed who had had sexual intercourse had been told by a doctor or nurse that they had a sexually transmitted disease.





Percentage of Students Who Have Had Sexual Intercourse Who Reported That a Condom Was Used the last Time They Had Intercourse

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# DIETARY BEHAVIORS



Colorado Springs Gazette Telegraph September 6, 1993

## The Yum & the Yuck: Sweet desires stretch candymakers imaginations

By Robin Rivers

America's sweet tooth just

The search for the new and exciting belongs to the kids.

A typical kid will walk right past a gourmet-candy store and into a convenience store, where the adult-gagging sweets lurk.

Kid candy has turned from fun to gross, the grosser the better.

Kids of all ages are bringing home SNOT, Mad Dawn Gum and Jurassic Park jawbreakers, to their parents' dismay.

Today, mouth-coloring candy is a requirement. StainCo's Paint Your Mouth gum even comes in create-a-shade combinable colors that let you create your own palette.

In the competitive world of candy, it's not easy being traditional. That's why longtime chocolate bunny-makers at Philadelphia Candies of Sharon, Pa., are making chocolate dinosaurs this year.

The Daily Sentinel August 28, 1993

## Calcium in teen years key to strong bones

By Kim Painter

Girls who get a little extra calcium in early adolescence could go a long way toward strengthening their bones for life, a new student suggests.

The study, in the Aug. 18 *Journal of the American Medical Association*, adds to growing evidence that kids and teens, rather than adults, have the most to gain from calcium-rich diets.

By puberty, a girl has about half her adult bone mass, by 18 she has 90 percent and "by 20 it's pretty much over," says Tom Lloyd of Pennsylvania State University, Hershey.

People who don't build enough bone end up at high risk for brittle, easily broken bones — osteoporosis, it's most common in older women.

So Lloyd set out to see if he could increase bone building during one crucial period.

In his student, 94 girls around 12 years old were divided into two groups: Half got 500 milligram calcium supplements each day and half got placebos.

Girls in each group averaged about 960 mg. a day from food.

The recommended daily allowance: 1,200 mg.

The girls taking supplements skipped some doses, but still got nearly 1,400 mg. a day.

Results: These girls gained 1.3 percent more bone in a year than the girls getting less calcium.

The difference could be significant if sustain for several years, Lloyd says.

If girls in the higher-calcium group had 6 percent more bone at 18, they'd cut their osteoporosis risk in half.

Women may continue to gain small amounts of bone through their 20s, then start to lose it after 35.

The loss accelerates after menopause. Calcium remains important for healthy bones at all of those stages.

The RDA for women 25 and over is 800 mg. But pregnant and breastfeeding women need 1,200 mg.

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# Dietary Behaviors

## Dietary Behaviors

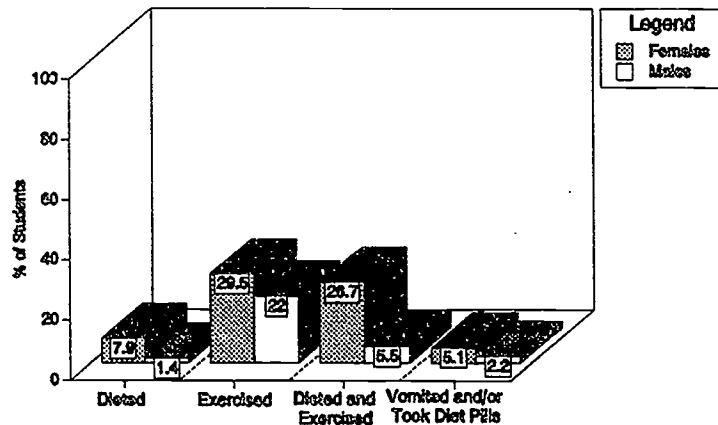
Obesity appears to be increasing by as much as 39%, and extreme obesity appears to be increasing by as much as 64% among youth age 12-17 (Gortmaker, Dietz, Sobol & Wehler, 1987). Obesity acquired during adolescence may persist into adulthood, increasing later risk for chronic conditions such as diabetes, heart disease, high blood pressure, stroke, some cancer, and gall bladder disease (Public Health Service, 1988). Also, adolescents often experience social and psychological stress related to obesity (Rotatori & Fox, 1989). Overemphasis on thinness can contribute to eating disorders (Public Health Service, 1988).

### Colorado Year 2000 Objectives:

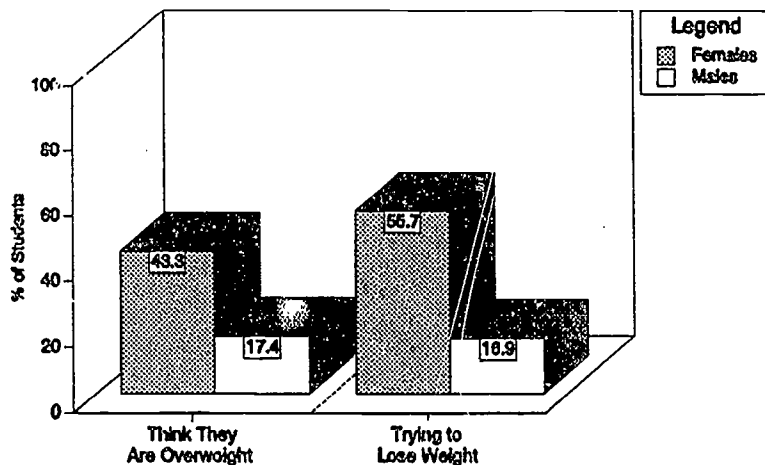
Increase the percentage of students who report eating fruit and vegetables on the previous day to 85 percent.

Decrease the percentage of students who report eating fried foods on the previous day to 40 percent.

Objectives based on 1990 survey data and vital statistics.



Methods of Weight Control Used During the Previous Week



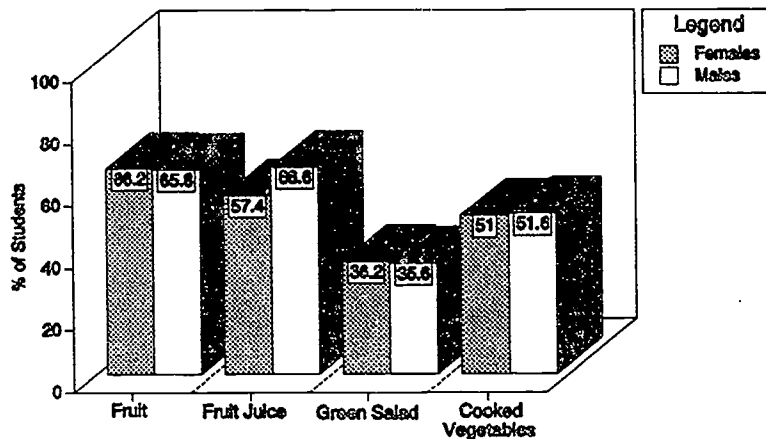
Percentages of Students Who Thought They Were Overweight, and Percentage Who Were Trying to Lose Weight

### Colorado YRBS Results:

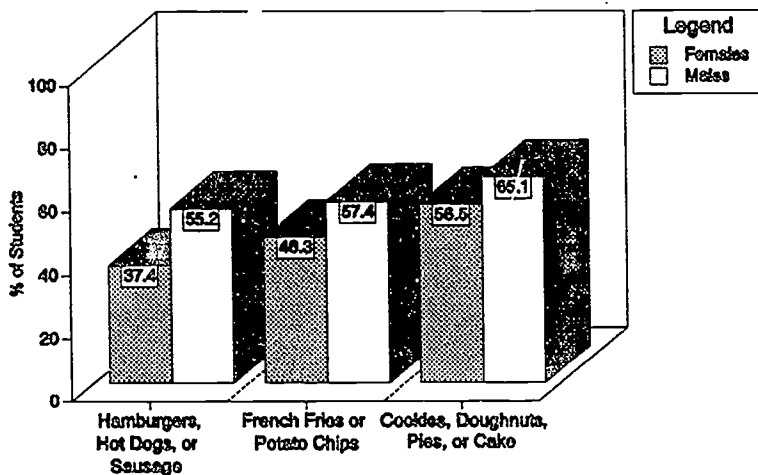
- ◆ 64.0% of females surveyed and 29.0% of males surveyed had dieted, exercised, or exercised and dieted in the previous week to keep from gaining weight.
- ◆ 45.0% of females surveyed and 53.7% of males surveyed thought they were about the right weight.



Americans currently consume more than 36% of their total calories from fat. High fat diets, which are associated with increased risk of obesity, heart disease, some types of cancer, and other chronic conditions, often are consumed at the expense of food high in complex carbohydrates and dietary fiber, considered more conducive to health (Public Health Service, 1988). Because lifetime dietary patterns are established during youth, adolescents should be encouraged to choose nutritious foods and to develop healthy eating habits (Select Panel for the Promotion of Child Health, 1981).



What Students Ate The Previous Day



What Students Ate The Previous Day

- ◆ 51.2% of all students surveyed ate cooked vegetables. 35.9% ate green salad on that day.
- ◆ 46.4% of all the students surveyed ate hamburger, hot dogs, or sausage the day before the survey.
- ◆ 52.1% of all students surveyed ate french fries or potato chips.
- ◆ 60.7% of all students surveyed ate cookies, doughnuts, pies or cake.

**Colorado YRBS Results:**

On the day before the survey:

- ◆ 66.0% of all students surveyed ate fruit. One-half (48.6%) of those students had more than one serving of fruit on that day.

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# PHYSICAL INACTIVITY



Fort Collins Coloradoan August 29, 1993

## Northside story: Basketball program to keep kids off streets draws youths from across region to Azlan

By Chrissy Cada

It started out as a summer basketball program for junior high school boys from a local area.

The idea was to get kids off the streets and into the gym, where they would be away from trouble and the growing influence of gangs.

Then the older guys found out about it. Then the younger crowd started hanging around practice and wanting to join in. Then the girls got interested. Then word spread to other communities.

By the time the summer youth basketball program had its final all-day tournament Saturday, it was a coed, all-ages, regional event.

For organizers, that spells success.

"You know you've got something good going when kids start to tell each other about it," said director of a local community center, where the program holds its practices and games. "It just keeps growing and growing."

Organizers estimate that between 250 and 300 youths of all ages and

socioeconomic backgrounds participated in the summer program, which began in June.

Local businessman, the city's parks and recreation department and the local county sheriff's office created the program based on the belief that organized athletics can serve as an excellent distraction for children at a vulnerable age.

The teamwork that is a natural part of any sport is a by-product of the program.

During the tournament, teammates offered each other words of encouragement, high-fives and plenty of slaps on the back.

"If they're out there working as a team, they aren't as likely to think of each other as the enemy," said the director.

"They afford their teammates and even those on the other teams a certain amount of respect."

"There are no territories here."

Because summer basketball was so popular, the center is considering setting up a similar program in the winter months ahead.

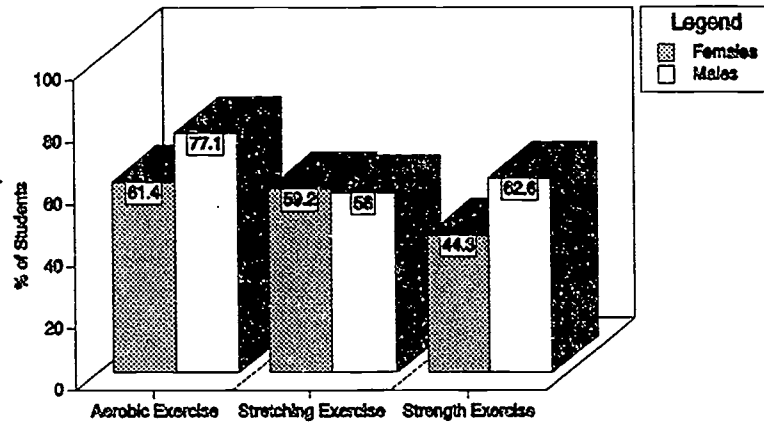
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# Physical Inactivity

## Physical Inactivity

Regular physical activity increases life expectancy (Paffenbarger, Hyde, Wing, & Hsieh, 1986). Additionally, regular physical activity can assist in the prevention and management of coronary heart disease, hypertension, diabetes, osteoporosis, obesity, and mental health problems (Harris, Caspersen, DeFries, & Estes, 1989). The quantity and quality of school physical education programs have a significant positive effect on the health-related fitness of children (U.S. Department of Health and Human Services, 1985, 1987).



Percentages of Students Who Exercised on Three or More Days of the Past Seven Days

**Colorado Year 2060 Objective:** Increase the percentage of students who report participating in six or more days of vigorous activity lasting at least 20 minutes during the previous two weeks to 60 percent.

*Objective based on 1990 survey data and vital statistics.*

### Colorado YRBS Results:

- ◆ 69.4% of students surveyed participated in activities that made them sweat or breathe hard on three or more of the previous seven days.
- ◆ 38.0% of all 9th grade students surveyed and 19.5% of all 12th grade students surveyed were participating in a physical education class on a daily basis.
- ◆ Of those students surveyed who were enrolled in a P.E. class, 84.3% spent more than 20 minutes actually exercising or playing sports during an average class period.

- ◆ 61.0% of males surveyed and 52.4% of females participated on one or more sports teams provided by their school during the prior 12 months.

- ◆ 47.2% of males surveyed and 34.7% of females played on one or more sports teams run by organizations outside their school during the preceding 12 months.

- ◆ 52.6% of all 9th grade students surveyed and 35.3% of all 12th grade students surveyed walked or bicycled for at least 30 minutes on three or more of the previous seven days.

### FOR MORE INFORMATION ON THIS TOPIC CONTACT:

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# Summary and Conclusions

**R**esults of the 1993 Colorado Youth Risk Behavior Survey indicate that students who participated in the survey continue to engage in the behaviors that lead to the most serious health and social problems of adolescence and adulthood. Too few of the students wear seatbelts when riding in a car or helmets when riding on motorcycles and bicycles. Too many students carry guns and other weapons, and violence in Colorado schools is on the rise. A significant number of students have seriously considered attempting suicide, and many students use alcohol, tobacco, and other drugs. Students are participating in sexual behaviors that lead to HIV infection, other sexually transmitted diseases, and unintended pregnancy. And, students' dietary and physical activity patterns could be improved.

The social and financial costs of these risk behaviors to individuals, families, and society are substantial, and precious resources are diverted from more productive pursuits to address them. Many of the health and social problems experienced by young and old alike are preventable.

School health education programs can assist parents and communities in encouraging youth to adopt healthy behaviors. Successful programs incorporate a planned sequential K-12 curriculum that addresses each of the priority health risk behaviors emphasizes behavior change and the development of risk-reduction skills.

Successful programs provide for adequate instructional time and repeated exposures throughout all grades in school. Such programs are coordinated school-wide, and teach through persons who are adequately trained and interested in teaching about a variety of health topics.

Emphasis on the development of skills and self-esteem, providing recognition and reinforcement for newly acquired skills and positive health behaviors are important elements of successful programs.

Effective school health education programs address:

- Injury prevention
- Tobacco use
- Alcohol and other drug use
- Sexual Behaviors
- HIV and other STD prevention
- Nutrition
- Physical fitness
- Emotional and mental health
- Personal hygiene
- Social and environmental health

Results of the 1992 Colorado HIV Education Survey (Gray, 1993) of secondary schools indicate that Colorado schools are still developing the capacity to provide effective comprehensive health education to students. Hopefully, this report will stimulate productive discussions among educators, parents, and youth across Colorado and result in increased efforts to provide youth with the kinds of educational programs that will enable them to adopt healthy behaviors and avoid preventable diseases.

**For more information about the Youth Risk Behavior Survey, effective health education programs and assistance in developing such programs in your school please contact the Colorado HIV Education Program.**

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