

### **TABLE OF CONTENTS**

EXECUTIVE SUMMARY	1
PERSONAL SAFETY AND VIOLENCE-RELATED BEHAVIORS	4
SAD FEELINGS AND SUICIDE	10
TOBACCO USE	12
ALCOHOL AND ILLICIT DRUG USE	15
SEXUAL BEHAVIOR	22
NUTRITION AND PHYSICAL ACTIVITY	25
APPENDICES	
Sampling Design	A-1
Race/Ethnicity Categories	
Question Rationales	
1999 NM Youth Risk Behavior Survey	

#### **EXECUTIVE SUMMARY**

In the spring of 1999, New Mexico participated in the Youth Risk Behavior Survey (YRBS) for high school students. The YRBS was developed by the Centers for Disease Control and Prevention to 1) focus attention on specific behaviors among youth that cause the most prevalent health problems, 2) measure the changes in those behaviors over time, and 3) provide comparable state and national data. The survey focuses on health risk behaviors which relate most directly to health outcomes.

The YRBS measures six health risk behavior categories which are known to cause premature morbidity and mortality among youth:

#### Behaviors that result in intentional and unintentional injuries

New Mexico 1999 YRBS information:

- ♦ Almost ¾ of respondents said they had felt depressed or worried, tense or anxious at least one day out of the past 30.
- 76% of respondents reported wearing seatbelts all or most of the time.

#### Tobacco use

New Mexico 1999 YRBS information:

- ♦ 35% of respondents reported they have never smoked a whole cigarette.
- ♦ 20% were 13 or 14 years old when they first smoked a cigarette.

#### Alcohol and other drug use

New Mexico 1999 YRBS information:

- ♦ 83% of respondents had their first drink of alcohol at age 14 or younger.
- ♦ 42% had tried marijuana for the first time at age 14 or younger.

## Sexual behaviors that result in and contribute to sexually transmitted diseases, including HIV infection and unintended pregnancies

New Mexico 1999 YRBS information:

- 52% of all respondents reported having had sexual intercourse.
- ♦ The average age of first sexual intercourse reported is approximately 14 years 5 months.

#### Inadequate dietary behaviors that result in health problems

New Mexico 1999 YRBS information:

- ♦ 18% of females and 10% of males reported going without eating for 24 hours or more.
- ♦ 12% of females and 8% of males reported taking diet pills, powders or liquids to lose weight without a doctor's advice.

#### Inadequate physical activity that result in illnesses

New Mexico 1999 YRBS information:

- ♦ 48% of respondents reported they do not take physical education class.
- ♦ 20% watch four or more hours of television on an average school day.

Information obtained through the New Mexico YRBS will be used by the state, counties, and local communities as they plan services, activities and programs for the youth in their communities. While this report is a summary of state-wide data, county-level data was also reported and is available through the Department of Health. In addition, forty-seven school districts requested and were provided district-specific data. District-specific data can only be released by the local school district.

#### **SURVEY**

The Youth Risk Behavior Survey (YRBS) was administered to New Mexico high schools in the spring of 1999 for the first time since 1995. The core questions of the survey were written by the Centers for Disease Control and Prevention (CDC) to find out about behaviors of young people in eight key areas of behavior that increase the risk of death and illness.

In 1999, 30 questions were added to the core 87 of the CDC's instrument--10 additional demographic questions and 20 questions about perceptions of norms regarding substance use.<sup>1</sup>

For the first time, school district superintendents were offered district-specific results from the administration of the survey. Of the 89 school districts in New Mexico, 47 districts participated to get district-specific data.

#### **SAMPLING DESIGN**

The frame consisted of all public high schools in New Mexico.

There were two levels of samples drawn. One level of sampling was drawn to meet the CDC's criteria at the state level. This sample was drawn using PCSample, a software package provided by Westat, which stratifies by school and classroom. The other level of sampling was at the district level for those districts that had requested district-specific results. The samples within the district were stratified by 2<sup>nd</sup> period classroom and drawn according to an equal probability sampling formula. Because the school districts self-selected and were not drawn according to a probability design, results from the district level cannot be aggregated and inferences made to the state level. (See appendix for a description of the sampling design.)

#### **RESPONSE RATE**

For the state-level sample, surveys were sent to 896 students in 56 schools, of which 37 schools responded with 568 surveys for an Overall Response Rate of 41.6%.

At the district level, 57 districts requested district-specific data, out of which 47 returned surveys of which only 32 had a response rate of 70% or better. Several large school districts did not participate or had a very low response rate.

The Overall Response Rate for all schools selected in the state-level sample and the district samples was 47.5%. Because of the lack of participation of large school districts and low Overall Response Rate, and the sampling design, these data do not meet the criteria for weighting. Generalizations about behaviors of young people cannot be made at the state level. The results in this report are for all respondents aggregated from state and district-level samples. The results pertain to respondents from participating districts and schools only, and inferences to all New Mexico public high school students should not be made.

#### **COMPARISONS**

The last weighted YRBS administered in New Mexico was 1991 (N=3,137). However, the questions asked in 1991 are sufficiently different from the 1999 questions that only one or two questions about safety could be compared. In 1993 the YRBS was administered again with unweighted results (N=1,714). However, some of the questions are sufficiently similar to

the 1999 questions that where possible, the 1993 results will be noted for purposes of comparison. The results from the 1995 YRBS are too small to note.

In 1997 Public Health Division of the New Mexico Department of Health constructed and administered the New Mexico School Survey (NMSS) (N=26,932). This survey, administered in place of the YRBS, was also unweighted. The questions were asked in a different format than the 1999 YRBS so comparisons for purposes of noting trends is possible in only a few selected instances. Where these questions match, the comparisons between the 1997 NMSS and the 1999 YRBS results will be noted.

#### **Demographic Information**

Gender. The ratio of males to females in the sample is equal. This is very close to the gender representation in the total school population. In the school year 1998-99, the percentage of males and females was 51.5% and 48.5% respectively.

Ethnicity/race. There are slightly more Hispanics and Whites and slightly fewer American Indians in the sample than in the total school population as reported in school year 1998-99, which was 48.8% Hispanic, 37.2% Anglo, and 10.8% American Indian.

1999 YRBS RESPONDEN'T DEMOGRAPHIC INFORMATION		
Gender	50.3% female, 49.7% male	
Ethnicity/race	50.8% Hispanic, 41.3% White, 8.6% American Indian, 2.7% Black, 1.9% Asian/Pacific Islander	
Age	148%, 1526.9%, 1626.7%, 1722.2%, 18 and older15.7%	
Grade	9th30.6%, 10th26.7%, 11th23.3%, 12th18.5%, Other or ungraded1%	
Language other than English	No other language at home44% Half of the time or less40% More than half or all of the time16%	
Born in US	Born in US90% Moved to US 10+ years ago4% Moved to US 5-10 years ago3% Moved to US less than 5 years ago3%	
Grades	As and Bs49.5%, Bs and Cs34.5%, Cs and Ds12.5%, Ds and Fs3.5%	
Family have enough for things they need?	All of the time66% Most of the time26% Some of the time6.3% Almost never1.7%	
Phone service	Local and long distance82% Local service only11.2% No phone service6.5%	

#### PERSONAL SAFETY AND VIOLENCE-RELATED BEHAVIORS

More than 400 Americans die each day due primarily to motor vehicle crashes, firearms, poisonings, suffocation, falls, fires, and drowning. The risk of injury is so great that most persons sustain a significant injury at some time during their lives.

Motor vehicle crashes are the most common cause of serious injury. In 1997 there were 15.8 deaths from motor vehicle crashes per 100,000 persons. Motor vehicle crashes are often predictable and preventable. Increased use of seat belts and reductions in driving while impaired are two of the most effective means to reduce the risk of death and serious injury of occupants in motor vehicle crashes.

Death rates associated with motor vehicle-traffic injuries are highest in the age group 15 to 24 years. In 1996, teenagers accounted for only 10 percent of the U.S. population but 15 percent of the deaths from motor vehicle crashes. Those aged 75 years and older had the second highest rate of motor vehicle-related deaths.

Nearly 40 percent of traffic fatalities in 1997 were alcohol-related. Each year in the United States it is estimated that more than 120 million episodes of impaired driving occur among adults. In 1996, 21 percent of traffic fatalities of children under age 14 years involved alcohol; 60 percent of the time it was the driver of the child's car who was impaired.

The highest intoxication rates in fatal crashes in 1995 were recorded for drivers aged 21 to 24 years. Young drivers who have been arrested for driving while impaired are more than four times as likely to die in future alcohol-related crashes.

In 1997, 32,436 individuals died from firearm injuries; of this number, 42 percent were victims of homicide. In 1997, homicide was the third leading cause of death for children aged 5 to 14 years, an increasing trend in childhood violent deaths. In 1996, more than 80 percent of infant homicides were considered to be fatal child abuse.

Many factors that contribute to injuries are also closely associated with violent and abusive behavior, such as low income, discrimination, lack of education, and lack of employment opportunities.

U.S. Department of Health and Human Services. Healthy People 2010 (Conference Edition, in Two Volumes). Washington, DC: January 2000. Online at http://www.health.gov/healthypeople

In New Mexico, motor vehicle accidents are 76.5% of all accidents leading to death of 15-24 year olds. In this age range in New Mexico, accidents are the leading cause of death, suicide is second, and homicide is third.

1997 New Mexico Selected Health Statistics, published by New Mexico Vital Records and Health Statistics, Department of Health

A set of five questions addressed personal safety and a set of 10 questions addressed violence-related behaviors. These are questions about behaviors that might lead to intentional and unintentional injuries: helmet wearing on bicycles and motorcycles, wearint seat bealts, and driving a car, or being a passenger in a car, where the driver is under the influence of alcohol or drugs. (See Question Rationales in Appendix for a more detailed explanation.)

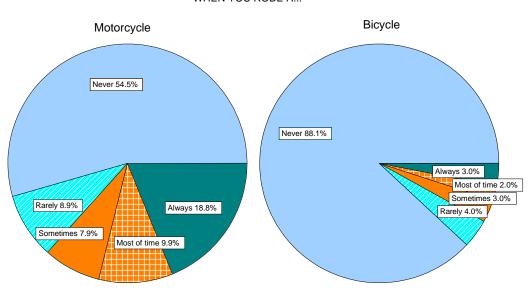
#### **HELMET WEARING**

65% of the respondents never rode a motorcycle and 33% never rode a bicycle. Of those that did ride a bicycle,

• 89% never wore a helmet; 5% wore a helmet always or most of the time. In the 1993 New Mexico YRBS, only 1.2% of bicyclists always wore a helmet.

Of those who rode a motorcyle,

• 29% wore a helmet always or most of the time. This is up slightly from the 1993 results when 26.8% wore a helmet always or most of the time.



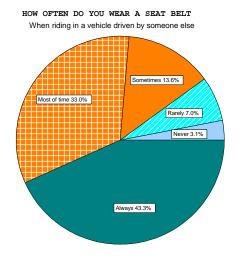
IN PAST 12 MONTHS, HOW OFTEN DID YOU WEAR A HELMET WHEN YOU RODE A...

#### **SEAT BELTS**

• 76% of the respondents wear a seatbelt always or most of the time. In 1991, 59% reported wearing a seatbelt all or most of the time, in 1993 it was 58%.

Factoid: Despite the fact that motor vehicle death rates have declined significantly since 1975, motor vehicle crashes continue to be the major cause of death and serious disability for adolescents and young adults. On a per population basis, drivers under age 25 in the United States (U.S.) had the highest rate of involvement in fatal crashes of any age group in 1996 and their fatality rate based on vehicle miles traveled was four times greater than the comparable rate for drivers age 25 to 65 (National Highway Traffic Safety Administration, NHTSA, 1997a).

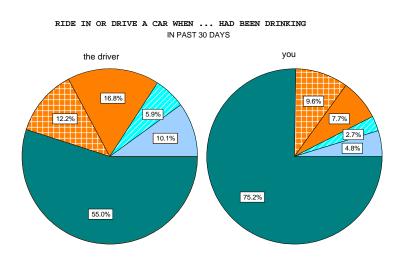
www.nhtsa.dot.gov/people/injury/research



#### RIDING IN OR DRIVING A VEHICLE, ALCOHOL INVOLVED

There were two questions asking about alcohol and driving a vehicle: one question asks how many times the respondent had been in a car or other vehicle **driven by someone who had been drinking alcohol**, and the other asks how many times the respondent **drove a car when s/he had been drinking alcohol**.

- In the past 30 days, 16% of the respondents had been in a car four or more times when the driver (someone else) had been drinking alcohol; another 17% had been in such a car 2-3 times. In 1993, 52% of all respondents had ridden in a car driven by someone who had been drinking
- One-fourth of the respondents had driven a car when they themselves had been drinking alcohol: 7.5 of them four or more times in the past 30 days.



• Males (31%) are more likely than females (20%) to have driven a car after drinking alcohol. However, there is not much difference between males and females being in a car where the driver had been drinking.

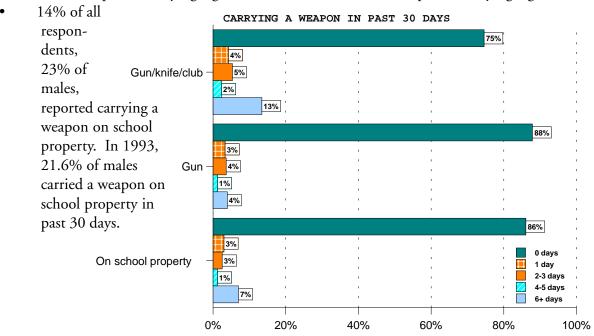
When someone else was driving 6.6% 15.9% 17.6% 13.3% 5.3% 11.1% 13.0% 7.3% 53.4% 56.5% Females Males When you were driving 9.2% 9.7% 10.0% 5.8% 7.1% 2.5% 80.8% 69.4%

RIDING IN OR DRIVING A CAR WITH ALCOHOL INVOLVED BY GENDER

#### **WEAPON CARRYING**

One question asks if the respondent carried any kind of weapon, such as a gun, knife, or club. The next question asks specifically about carrying a gun, and the 3rd question in this set asks about carrying any kind of weapon on school property.

- 25% of the respondents reported carrying a weapon in the past 30 days; 12% reported specifically carrying a gun. In 1993, 44% of males carried a weapon during the past 30 days.
- 43% of males and 10% of females reported carrying a weapon; 20% of males and 3% of females reported carrying a gun. In 1993, 49.1% of males reported carrying a gun.



Page 7

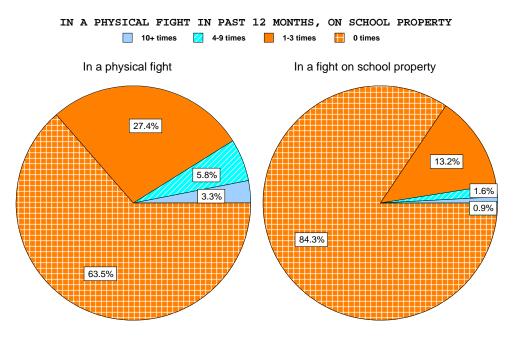
#### **SAFETY AT SCHOOL**

On the questions about safety at school, 90-92% of the respondents answered that they had not stayed away from school during the past 30 days because they felt unsafe and that they were not threatened or injured on school property in the past 12 months by someone with a weapon.

- 5.9% stayed out of school from one to three days, and 1.8% stayed out of school for 6 or more days out of the past 30. In the 1997 NMSS, 17.2% of high schoolers reported that they felt unsafe at school or on the way to school, and 5.6% missed school because of feeling unsafe in the past year.
- 6.7% were threatened or injured at school one to three times and 1.4% 12 or more times in the past 12 months.

#### PHYSICAL FIGHTING

Almost 2/3 (63.4%) of the respondents had not been in a physical fight in the last 12 months and most of those that had been in a fight were without serious injury.



Factoid: Between 1993 and 1997 the percentage of students in a physical fight on school property decreased from 16.2% to 14.8%. www.ama-assn.org/sci-pubs/journals/archive/jama/vol 28 no 5/

- 63% of the respondents had not been in a physical fight in past 12 months; 84% had not been in a fight on school property.
- 46% of males and 27% of females reported being in a fight in the past 12 months.
- 20% of males and 10% of females said that they had been in a fight on school property.

From the 1993 YRBS--

• 51% of males and 34% of females reported being in a fight in the past 12 months.

#### **SEXUAL VIOLENCE**

About 90% of respondents answered that they had not been hit, slapped, or physically hurt by their boy/ girlfriend in the last 12 months and had never been forced to have sexual intercourse.

When looking at the differences by gender in that 10% who have experienced violence by their partner, males and females respond equally. That is, both males and females apparently experienced physical violence from their partners in approximately equal proportions.

Factoid: 38% of girls and 16% of boys are sexually abused before the age of 18. bbcc.ctc.edu/~womenres/webassault.htm

10% of the respondents have been forced to have sexual intercourse against their will; of those, 60% are females and 40% are males.

#### SAD FEELINGS AND SUICIDE

Mental health is fundamental to health. The qualities of mental health are essential to leading a healthy life. Americans assign high priority to preventing disease and promoting personal well-being and public health; so too must we assign priority to the task of promoting mental health and preventing mental disorders.\*\*\*

Mental disorders must be considered within the context of the family and peers, school, home, and community. Taking the social-cultural environment into consideration is essential to understanding mental disorders in children and adolescents, as it is in adults. However, the changing nature of these environments, coupled with the progressively unfolding processes of brain development, makes the emphasis on context, as well as development, more complex and more central in child mental health. \*\*\*

Disorders of anxiety and mood are characterized by the repeated experience of intense internal or emotional distress over a period of months or years. Feelings associated with these conditions may be those of unreasonable fear and anxiety, lasting depression, low self-esteem, or worthlessness. Syndromes of depression and anxiety very commonly co-occur in children. \*\*\*

Population studies show that at any one time between 10 and 15 percent of the child and adolescent population has some symptoms of depression.... The prevalence of the full-fledged diagnosis of major depression among all children ages 9 to 17 has been estimated at 5 percent .... Estimates of 1-year prevalence in children range from 0.4 and 2.5 percent and in adolescents, considerably higher (in some studies, as high as 8.3 percent) .... For purposes of comparison, 1-year prevalence in adults is about 5.3 percent. \*\*\*

The combined prevalence of the group of disorders known as anxiety disorders is higher than that of virtually all other mental disorders of childhood and adolescence .... The 1-year prevalence in children ages 9 to 17 is 13 percent. \*\*\*

Both major depressive disorder and dysthymic disorder are inevitably associated with personal distress, and if they last a long time or occur repeatedly, they can lead to a circumscribed life with fewer friends and sources of support, more stress, and missed educational and job opportunities.... In a 10- to 15-year followup study of 73 adolescents diagnosed with major depression, 7 percent of the adolescents had committed suicide sometime later. The depressed adolescents were five times more likely to have attempted suicide as well, compared with a control group of age peers without depression...

U.S. Department of Health and Human Services. Mental Health: A Report of the Surgeon General—Executive Summary. Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institutes of Health, National Institute of Mental Health, 1999. Online at www.surgeongeneral.gov/library/mentalhealth/

A set of eight questions ask about sad feelings and attempted suicide. Anxiety and depression are becomming more and more common among young people, and the suicide rate among 15-24 year olds has tripled since 1950.

#### FEELING ANXIOUS AND DEPRESSED

Factoid: As of 1997, suicide is the 3rd leading cause of death for adolescents and young adults ages 15-24, and 6th ranked cause of death for 5-14 year olds.

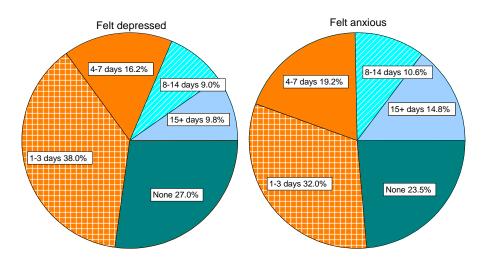
CDC Monthly Vital

Statistics Report, Vol. 47, No. 19, online at www.cdc.gov/nchs/fastats/suicide.htm

One question asks on how many days out of the last 30 have "you felt sad, blue or depressed;" the other asks have "you felt worried, tense, or anxious."

- Only one-quarter of the respondents did not feel any anxiety or depression in the 30 days before the survey.
- Almost three-fourths (73%) of the respondents felt depressed at some time during the past 30 days.
- 18% felt depressed for eight or more days. In the 1997 NMSS, 12% reported feeling discouraged/hopeless all or most of the time.
- One-fourth (25.4%) of respondents felt anxious for eight or more days. In the 1997 NMSS, 16.2% felt nervous, worried, or upset and 26.7% felt under stress or pressure all or most of the time.

#### PERCENTAGE FEELING ANXIOUS OR DEPRESSED IN LAST 30 DAYS



Factoid: In New Mexico, as of 1997, suicide is the 2nd leading cause of death for adolescents and young adults of all races ages 15-24 at 21/100,000 population, and 3rd ranked cause of death for 5-14 year olds at 1.6/100,000.

1997 New Mexico Selected Health Statistics, published by New Mexico Vital Records and Health Statistics, Department of Health

- 17% of respondents reported seriously considering suicide in the past year. In 1993, it was 27.4%.
- 14% made a plan for attempting suicide
- 7.5% actually attempted suicide 1-3 times
- 3.3% of the attempts resulted in an injury, poisoning, or overdose that had to be treated by a doctor or nurse.

#### **TOBACCO USE**

#### Tobacco Use

Cigarette smoking is the single most preventable cause of disease and death in the United States. Smoking results in more deaths each year in the United States than AIDS, alcohol, cocaine, heroin, homicide, suicide, motor vehicle crashes, and fires – combined.

In 1997, 36 percent of adolescents were current smokers. In the same year, 24 percent of adults were current smokers.

#### Health Impact of Cigarette Smoking

Smoking is a major risk factor for heart disease, stroke, lung cancer, and chronic lung diseases—all leading causes of death. Smoking during pregnancy can result in miscarriage, premature delivery, and sudden infant death syndrome. Other health effects of smoking result from injuries and environmental damage caused by fires. Environmental tobacco smoke (ETS) increases the risk of heart disease and significant lung conditions, especially asthma and bronchitis in children. ETS is responsible for an estimated 3,000 lung cancer deaths each year among adult nonsmokers.

#### Trends in Cigarette Smoking

Adolescents. Overall, the percentage of adolescents in grades 9 through 12 who smoked in the past month increased in the 1990s. Every day, an estimated 3,000 young persons start smoking. These trends are disturbing because the vast majority of adult smokers tried their first cigarette before age 18 years; more than half of adult smokers became daily smokers before this same age. Almost half of adolescents who continue smoking regularly will eventually die from a smoking-related illness.

#### Populations With High Rates of Smoking

Adolescents. Adolescent rates of cigarette smoking have increased in the 1990s among white, African American, and Hispanic high school students after years of declining rates during the 1970s and 1980s. In 1997, 40 percent of white high school students currently smoked cigarettes compared with 34 percent for Hispanics and 23 percent for African Americans. Among African Americans in 1997 only 17 percent of high school girls, compared with 28 percent of boys, currently smoked cigarettes. Rates of smoking cigarettes in white and Hispanic high school girls and boys are not substantially different.

#### Other Important Tobacco Issues

There is no safe tobacco alternative to cigarettes. Spit tobacco (chew) causes cancer of the mouth, inflammation of the gums, and tooth loss. Cigar smoking causes cancer of the mouth, throat, and lungs and can increase the risk of heart disease and chronic lung problems.

U.S. Department of Health and Human Services. Healthy People 2010 (Conference Edition, in Two Volumes). Washington, DC: January 2000. Online at http://www.health.gov/healthypeople

This set of questions addresses smoking experimentation, age at first use, and current smoking habits. There are also questions that address access to cigarettes, including one that asks if the respondents was "carded" if they purchases cigarettes in a store. To the original 13 YRBS questions, New Mexico added four questions about perceptions of norms and risk.

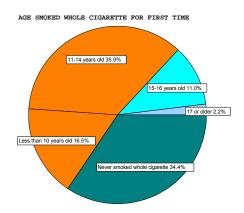
#### AGE SMOKED FIRST WHOLE CIGARETTE

- 77% have tried cigarette smoking (one or two puffs).
- One-third of the respondents said they had never smoked a whole cigarette.
- Over one-third (36%) of the total respondents had their first whole cigarette between the ages of 11 and 14, the middle school years.

Factoid: The average age of first tobacco use is 12.2 years for children aged 12 to 17.

- 1 out of 2 eighth-graders has tried cigarettes.
- 1 out of 12 eighth-graders smokes cigarettes daily.

www.health.org/pepscommunity/facts.htm



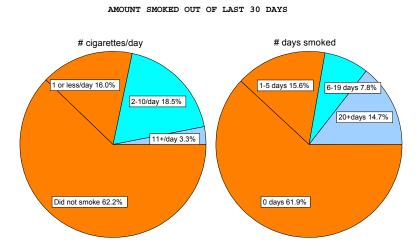
- 32.5% reported having their first whole cigarette by age 12, up slightly from the 1993 YRBS results of 30.4%.
- 56.4% of those who had their first cigarette by age 12 have tried to quit smoking.

#### AMOUNT SMOKED

- 62% of the respondents said they had not smoked in the 30 days before the survey; 38% reported some amount of cigarette use. In the 1997 NMSS, 39.3% of respondents (grades 9-12) reported cigarette use in the past 30 days.
- 16% said they smoked 5 days or less out of the month and less than one cigarette per day.
- 25% reported smoking regularly (1 cigarette/day for past 30 days). In 1993, 24.8% of the respondents to the

YRBS reported regular cigarette smoking.

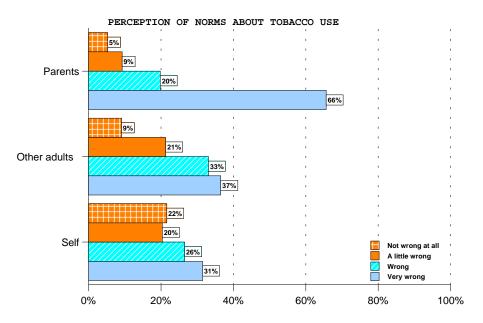
- 29% of those who smoked did so on all 30 of the past 30 days. In the 1993 YRBS, the percentage was 30.7%
- 16% said they had smoked on school property in the past 30 days.



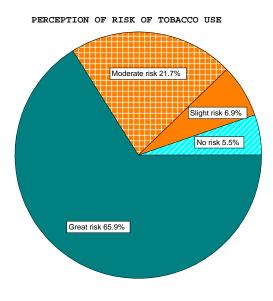
#### PERCEPTION OF NORMS AND PERCEPTION OF RISK

Three questions were asked abour respondent's perception of how wrong it would be for someone his/her age to smoke cigarettes: adults in your neighborhood, your parents, and yourself. These questions are new to the YRBS this year.

The percentage of respondents who think smoking cigarettes at their age is very wrong or wrong more closely approximates their perception of norms of other adults in the neighborhood than of parents.



Almost 88% of respondents think that smoking one or more packs of cigarettes per day is either a great or moderate risk. This perception of risk is not matched in the frequencies of respondents who think smoking is wrong for someone their age.



#### ALCOHOL AND ILLICIT DRUG USE

#### Substance Abuse

Alcohol and illicit drug use are associated with child and spousal abuse; sexually transmitted diseases, including HIV infection; teen pregnancy; school failure; motor vehicle crashes; escalation of health care costs; low worker productivity; and homelessness. Alcohol and illicit drug use also can result in substantial disruptions in family, work, and personal life.

Alcohol abuse alone is associated with motor vehicle crashes, homicides, suicides, and drowning—leading causes of death among youth. Long-term heavy drinking can lead to heart disease, cancer, alcohol-related liver disease, and pancreatitis. Alcohol use during pregnancy is known to cause fetal alcohol syndrome, a leading cause of preventable mental retardation.

#### Trends of Substance Abuse

<u>Adolescents.</u> Although the trend from 1994 to 1997 has shown some fluctuations, about 77 percent of adolescents aged 12 to 17 years report being both alcohol-free and drug-free in the past month.

Alcohol is the drug most frequently used by adolescents aged 12 to 17 years. In 1997, 21 percent of adolescents aged 12 to 17 years reported drinking alcohol in the past month. Alcohol use in the past month for this age group has remained at about 20 percent since 1992. Eight percent of this age group reported binge drinking, and 3 percent were heavy drinkers (five or more drinks on the same occasion on each of five or more days in the past 30 days).

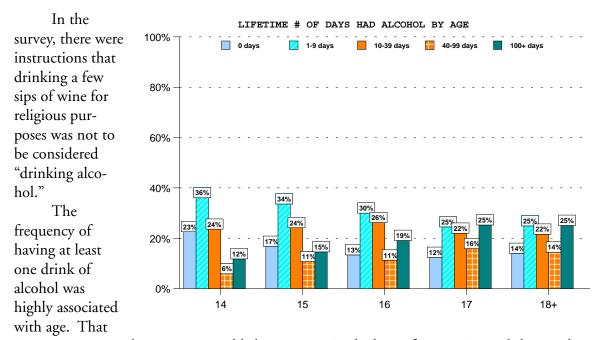
Data from 1998 show that 10 percent of adolescents aged 12 to 17 reported using illicit drugs in the past 30 days. This rate is significantly lower than in the previous year and remains well below the all-time high of 16 percent in 1979. Current illicit drug use had nearly doubled for those aged 12 to 13 years between 1996 and 1997 but then decreased between 1997 and 1998. Youth are experimenting with a variety of illicit drugs, including marijuana, cocaine, crack, heroin, acid, inhalants, and methamphetamines, as well as misuse of prescription drugs and other "street" drugs. The younger a person becomes a habitual user of illicit drugs, the stronger the addiction becomes and the more difficult it is to stop use.

Adults. Binge drinking has remained at the same approximate level of 16 percent for all adults since 1988, with the highest current rate of 32 percent among adults aged 18 to 25 years. Illicit drug use has been near the present rate of 6 percent since 1980. Men continue to have higher rates of illicit drug use than women, and rates of illicit drug use in urban areas are higher than in rural areas.

U.S. Department of Health and Human Services. Healthy People 2010 (Conference Edition, in Two Volumes). Washington, DC: January 2000. Online at http://www.health.gov/healthypeople

There are a total of 33 questions that address alcohol and illicit drug use. Alcohol is a major contributing factor in motor vehicle accidents and homicides, as well as suicide. Heavy drinking and other drug use has been linked to multiple sex partners and poor academic performance.

#### LIFETIME NUMBER OF DAYS HAD AT LEAST ONE DRINK OF ALCOHOL

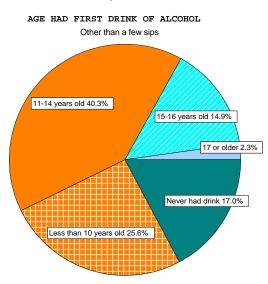


is, younger respondents were more likely to answer in the lower frequencies, and the number of days with at least one drink of alcohol got higher as the respondent got older.

#### AGE AT FIRST USE

• More than two-thirds (83%) of the respondents had their first drink of alcohol at age 14 or younger. In the 1997 NMSS, the median age of first use was 13.3 years old.

Factoid: According to a recent national survey of junior and senior high school students, more than 30% of teenagers drink alone; boredom and emotional distress are among the reasons why they say they drink. Teens don't drink the same way adults do. Many teens engage in "binge drinking" and down their drinks quickly so that they will get drunk. When they are drunk they are more likely to drink and drive, or to ride with another teen who has been drinking. www.ncadd.org/campmyths.html



Page 16

#### **CURRENT USE OF ALCOHOL**

- Less than one-half (41.2%) of the respondents did not drink at all during the 30 days prior to the survey.
- More than one-half (54.3%) had at least one drink between one and 19 days out of the previous month. In the 1997 NMSS, 30% reported drinking alcohol more than 2 times per month in the

last year. PAST 30 DAYS DRINKING ALCOHOL Among the small percentage 5+ drinks/2 hrs At least one drink (4.6%) of respondents who 1-5 days 31.4% are drinking 20 6-19 days 18.2% or more days in 1-5 days 36.1% 6-19 days 9.9% the past month, 20+ days 4.6% 20+ days 2.6% 60% reported binge drinking. In the 1997 NMSS, 31% of 0 days 41.2% 0 days 56.1% high schoolers reported "usually" drinking 5

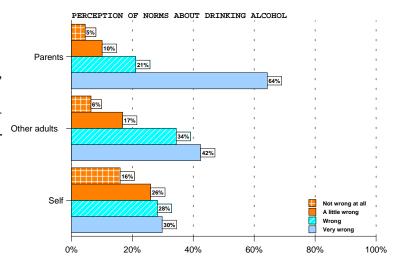
#### DRINKING ON SCHOOL PROPERTY

or more drinks at a time in the past year.

- 87% of the respondents said they did not have a drink on school property in the past 30 days.
- About 10% said that they had had at least one drink of alcohol on school property between one and five days out of the past 30. In the 1993 YRBS, 12.3% of students reported this.

#### PERCEPTION OF NORMS AND RISK

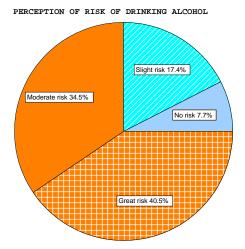
Although most respondents (64%) perceive their parents as feeling that it is very wrong to drink alcohol regularly, their own norms about drinking more closely follow their perception of neighbood adults' norms. Other adults



Page 17

Three-quarters (75%) of the respondents think that having one or two drinks of beer, wine, or hard liquor nearly every day is a great or moderate risk. As with the perception of tobacco use risk, the percentage of respondents who think using alcohol is risky is not reflected in their norms about the "wrongness" of using alcohol.

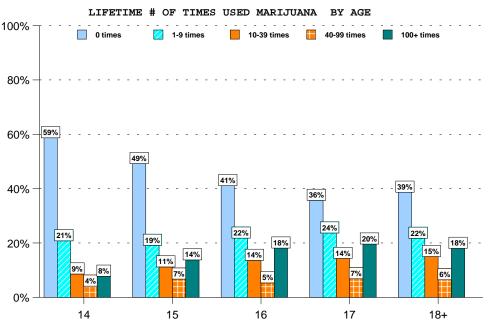
Factoid: According to the National Council on Alcoholism (NCA) and the National Institute of Drug Abuse...High school senior girls use more stimulants and tranquilizers than boys and come close to matching boys' levels of alcohol, marijuana, sedatives, barbiturates, inhalants, hallucinogens, cocaine, crack and use of opium. Online at www.azstarnet.com/direct/psaayd/psaaydstats.html



#### LIFETIME NUMBER OF TIMES USED MARIJUANA

As with alcohol use, the number of times that a respondent has used marijuana in his/her lifetime is strongly associated with their current age.

• 57% had tried marijuana at least once in their lifetime--35% had uised marijuana 10 or more times in their lifetime (61% of all who had used). In the 1993 YRBS, 40% had used marijuana at least once in their lifetimes, 52.5% of which had used 10 or more times.

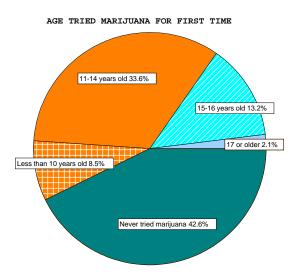


Page 18

#### AGE AT FIRST USE

• 42% of respondents said that they had tried marijuana for the first time at 14 years old or younger.

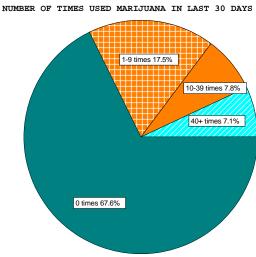
Factoid: A study found that teens who used substances frequently had higher levels of stress, could not cope as well with their problems, had the attitude that behavior such as lying or damaging property was not wrong, and had lower levels of parental support and self control than non-using teens. Journal of Abnormal Psychology, May 1999, published by the American Psychological Association, press release on-line at www.apa.org/releases/drugs.htmlwww.apa.org/releases/drugs.html



#### **CURRENT USE OF MARIJUANA**

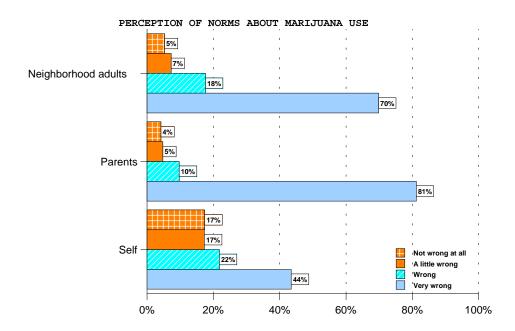
- About two-thirds (67.7%) of respondents had not used marijuana, 32% had used marijuana at least once in the past 30 days. In 1993, 22% had used marijuana at least
- The distribution of marijuana use of any amount is evenly distributed across grades, with 12th graders using slightly less than 9th thru 11th graders (20% for 12th, 25-27% for 9th-11th).

once in 30 days, in 1991 it was 17%.



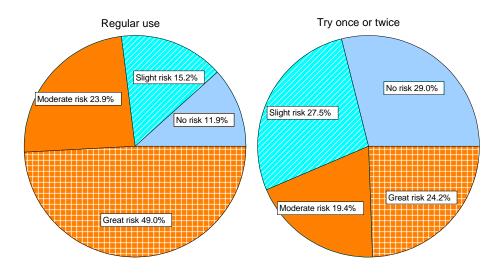
#### PERCEPTION OF NORMS AND RISK

The percentage of respondents (66%) perceiving marijuana use as wrong or very wrong is less than that of either other adults (88%) or parents (91%).



- Over half (56.5%) of the respondents consider trying marijuana once or twice no to slight risk.
- 73% of respondents consider smoking marijuana regularly to be a moderate to great risk. As with tobacco and alochol use, the perception of risk is not reflected in respondents' perception of "wrongness" of use.

#### PERCEPTION OF RISK SMOKING MARIJUANA



#### **COCAINE AND OTHER DRUG USE**

their body.

- 80% of respondents have not tried other drugs (that is, other than tobacco, alcohol, or marijuana). This is similar to the 1997 NMSS in which 20% of respondents reported trying any other drug in the past year.
- More respondents (21%) have tried sniffing than have tried cocaine, methamphetamines (speed), or heroin.
- 7% of males and LIFETIME USE OF OTHER DRUGS 3.8% of females have taken 12% Cocaine steroid shots or pills without a 3% doctor's prescription. In the Sniffing 1993 YRBS, 5.8% of males had taken steroids. Heroin 1% 6.2% of males and 3.2% of females have 9% Methamphetamines used a needle 2% 0 times 1-9 times 10-39 times toinject any illegal drug into 0% 20% 40% 60% 80% 100%

There are two questions asking respondents how many adults they have known who have either used or sold or dealt drugs.

- 80% of respondents reported knowing at least one adults who uses drugs; 45% of respondents reported knowing 5 or more; only 21% report not knowing any adults who use drugs.
- 63% of respondents # ADULTS RESPONDENT HAS KNOWN WHO HAVE USED OR SOLD DRUGS know at least 21% one adult who has sold or 19% Used dealt drugs; 15% 25% know 5 or more adults 45% who sell or deal. 25% Sold 13% 1-2 adults 25% 3-4 adults 5 or more adults 40% 0% 20% 60% 80% 100%

Page 21

#### SEXUAL BEHAVIOR

#### Trends in Sexual Behavior

In the past 6 years there has been both an increase in abstinence among all youth and an increase in condom use among those young people who are sexually active. Research has clearly shown that the most effective school-based programs are comprehensive ones that include a focus on abstinence *and* condom use. Condom use in sexually active adults has remained steady at about 25 percent.

#### Unintended Pregnancies

Half of all pregnancies in the United States are unintended, that is, at the time of conception the pregnancy was not planned or not wanted. Unintended pregnancy rates in the United States have been declining. The rates remain highest among women aged 20 years or younger, women aged 40 years or older, and low income African American women. Approximately 1 million teenage girls each year in the United States have unintended pregnancies. Nearly half of all unintended pregnancies end in abortion.

#### Sexually Transmitted Diseases

Sexually transmitted diseases are common in the United States, with an estimated 15 million new cases of STDs reported each year. Almost 4 million of the new cases of STDs each year occur in adolescents. Women generally suffer more serious STD complications than men, including pelvic inflammatory disease, ectopic pregnancy, infertility, chronic pelvic pain, and cervical cancer from the human papilloma virus. African Americans and Hispanics have higher rates of STDs than whites.

#### **HIV/AIDS**

Nearly 700,000 cases of AIDS have been reported in the United States since the HIV/AIDS epidemic began in the 1980s. The latest estimates indicate that 650,000 to 900,000 people in the United States are currently infected with HIV.

About one-half of all new HIV infections in the United States are among people aged 25 years and under, and the majority are infected through sexual behavior. HIV infection is the leading cause of death for African American men aged 25 to 44 years. Compelling worldwide evidence indicates that the presence of other STDs increases the likelihood of both transmitting and acquiring HIV infection.

U.S. Department of Health and Human Services. Healthy People 2010 (Conference Edition, in Two Volumes). Washington, DC: January 2000. Online at http://www.health.gov/healthypeople

A set of eight questions ask about sexual behaviors. Early sexual activity is associated with unwanted pregnancies and STDs. Teenage pregnancies place both mothers and children at risk for both social and economic disadvantage.

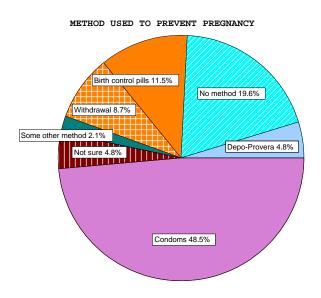
#### **SEXUAL INTERCOURSE**

- 52.3% of all respondents reported having sexual intercourse. In the 1993 YRBS it was 55.5% and in 1991, 55.8%.
- The percentage reporting having had sexual intercourse increases with age, from 29% at age 14 to 67% at age

  18. EVER HAD SEXUAL INTERCOURSE BY AGE OF RESPONDENT
- Of those reporting that they had sexual intercourse ever, one-third (32%) have had sex with just one person; two-thirds have had sex with two or more people in their lifetime.
- 16%, or approximately one-third of those ever having had intercourse, reported that they had not had sex in the past three months.



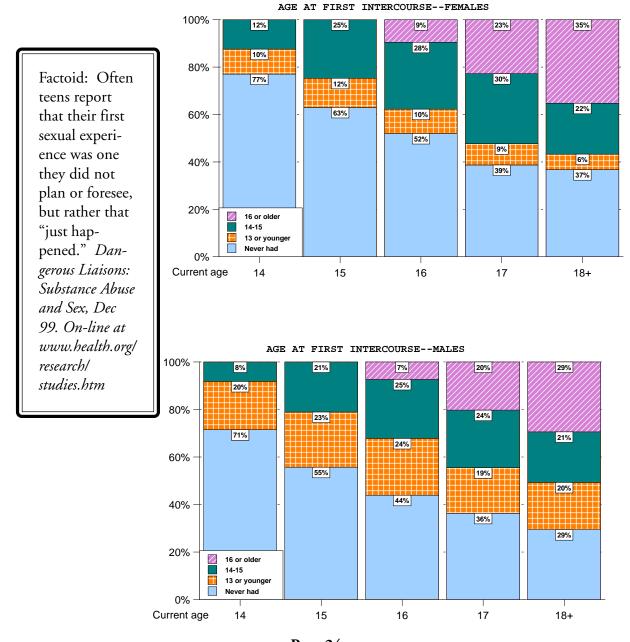
- Of those respondents who reported having sex in the last 3 months, two-thirds of them (22% of the total) had sex with just one partner.
- One-third of respondents who have had sex said that they had used alcohol or drugs before the last time they had intercourse, males and females about the same.
- Almost one-half (48.5%) of the respondents use condoms to prevent pregnancy. In 1993, 46.9% used condoms.
- One-fifth (19.6%) reported not using any contraceptive method at all. In 1993, 24.2% of respondents used no birth control method.
- 7.1% of all females report having been pregnant at least one time;; 4.9% of all males say they have gotten someone pregnant at least one time.



**Factoid:** Up to 18% of adolescents were drinking at the time of their first intercourse. Dangerous Liaisons: Substance Abuse and Sex, Dec 99. On-line at www.health.org/research/studies.htm

#### AGE AT FIRST INTERCOURSE

- The average age of first sexual intercourse for all respondents who reported having had sexual intercourse is approximately 14 years 5 months.
- For females, the average age for first encounter is closer to 15, approximately 14 years 9 months.
- For males, the average age is younger, approximately 14 years 1 month.



Page 24

#### NUTRITION AND PHYSICAL ACTIVITY

#### Important Nutrition Issues

The quality of food consumed in terms of the proportion of calories from fat, protein, and carbohydrate sources; salt, mineral, and vitamin content; and amount of dietary fiber plays a critical role in disease prevention. The *Dietary Guidelines for Americans* recommend that, to stay healthy, one should eat a variety of foods and choose a diet that is plentiful in grain products, vegetables, and fruits; moderate in salt, sodium, and sugars; and low in fat, saturated fat, and cholesterol.

#### Health Impact of Physical Activity

Regular physical activity

- · Increases muscle and bone strength
- · Increases lean muscle and helps decrease body fat
- · Aids in weight control and is a key part of any weight loss effort
- Enhances psychological well-being and may even reduce the risk of developing depression
- · Appears to reduce symptoms of depression and anxiety and to improve mood

In addition, children and adolescents need weight-bearing exercise for normal skeletal development, and young adults need such exercise to achieve and maintain peak bone mass. Older adults can improve and maintain strength and agility with regular physical activity. This can reduce the risk of falling, helping older adults maintain an independent living status. Regular physical activity also increases the ability of people with certain chronic, disabling conditions to performactivities of daily living.

#### Health Impact of Overweight and Obesity

Overweight and obesity substantially raise the risk of illness from high blood pressure; high cholesterol; Type 2 diabetes; heart disease and stroke; gallbladder disease; arthritis; sleep disturbances and problems breathing; and endometrial, breast, prostate, and colon cancers. Obese individuals may also suffer from social stigmatization, discrimination, and lowered self-esteem.

#### Reducing Overweight and Obesity

The development of obesity is a complex result of a variety of social, behavioral, cultural, environmental, physiological, and genetic factors. For example, a healthy diet and regular physical activity are both important for maintaining a healthy weight. Once overweight is established during adolescence, it is likely to remain in adulthood. For many overweight and obese individuals, substantial change in eating, shopping, exercising, and even social behaviors may be necessary to develop a healthier lifestyle

U.S. Department of Health and Human Services. Healthy People 2010 (Conference Edition, in Two Volumes). Washington, DC: January 2000. Online at http://www.health.gov/healthypeople

A set of seven questions ask about self-perception of body weight and behaviors related to weight control. The height and weight questions at the beginning of the survey, can be used to approximate body mass index (BMI), then compared to these self-perception questions to find out if respondents really are overweight. Actual overweight status is a factor is heart disease and diabetes, among other conditions, in adulthood. Perceived overweight status can lead to eating disorders such as anorexia and bulimia.

Eight questions are about physical activity. Participation in regular physical activity promotes not only physical health, but mental health as well, reducing feelings of depression and anxiety. Physical activity also decreases the risk for heart disease, diabetes, colon cancer, and high blood pressure.

#### PERCEPTION OF WEIGHT

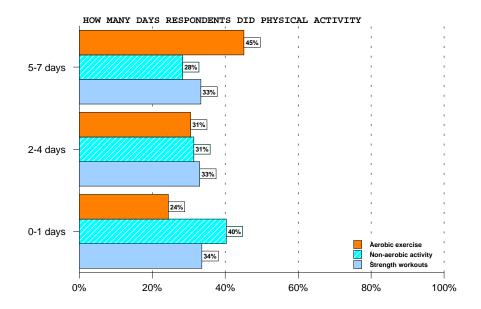
• 50% of females think they are about the right weight; 32% think they are slightly overweight.

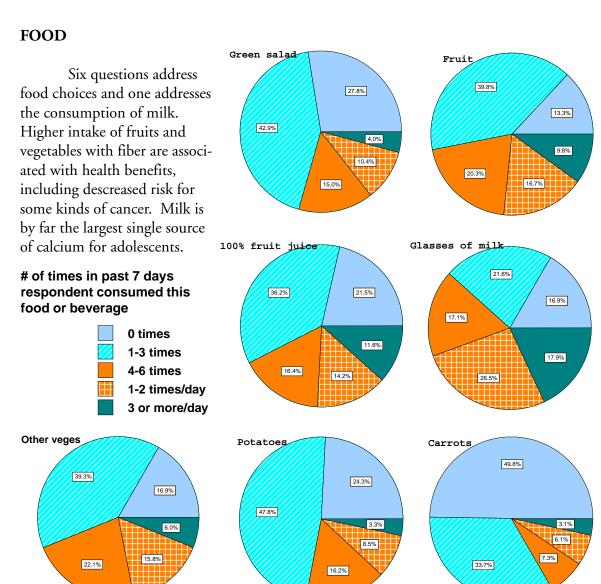
To lose or keep from gaining weight...

- 68% of females and 49% of males said that they exercised in the past 30 days.
- 50% of females PERCEPTION OF WEIGHT BY GENDER and 22% of males said that they ate less, ate 80% fewer calories, or foods low in fat. 17.6% of 50% females and 9.6% of males 32% reported going without eating 18% 17% for 24 hours or more. 11.5% of Slightly overweight females and About the right weight 8.1% of males reported taking
  - diet pills, powders or liquids without a doctor's advice.
- 8% of females and 6% of males reported vomiting or taking laxatives.

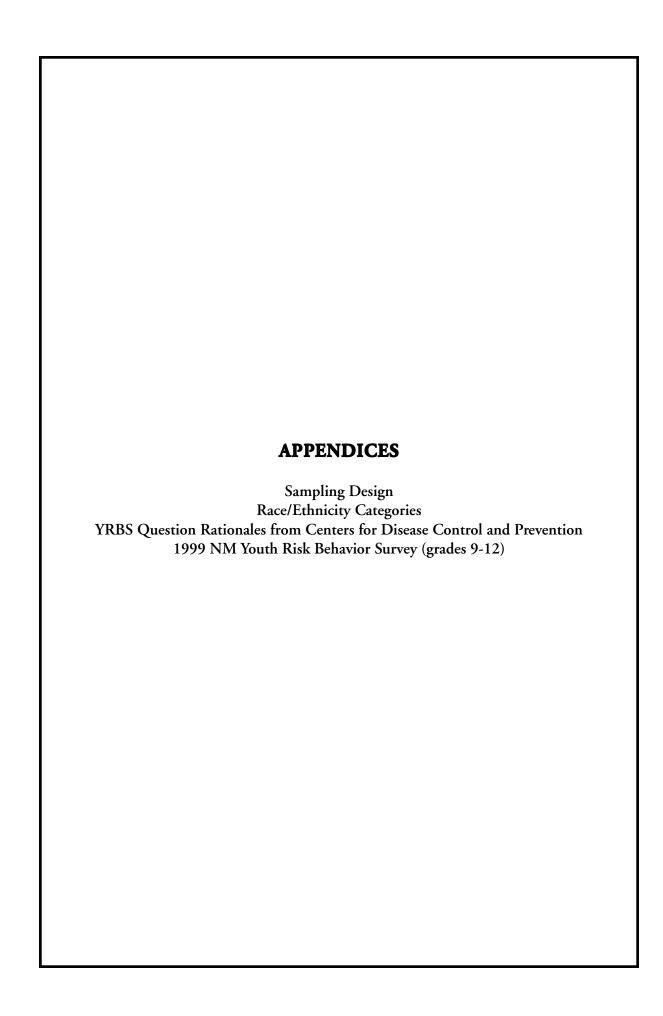
#### PHYSICAL ACTIVITY

- 39% of respondents said they watched TV 1 hour or less per day on an average school day; 41% watch 2-3 hours per day; and 20% watch 4 or more hours.
- 42% were not on any sports teams in the 12 months prior to the survey; 18% were on 3 or more teams.
- 29% were injured 1-2 times while playing sports in the past 12 months; 11% were injured 3 or more times.





Page 27



#### SAMPLING DESIGN

There were two sampling plans used. One was to draw the state-level sample as requested by CDC/Westat. PCSample, a software program provided by Westat, was used to draw the sample they wanted for the state-level of analysis. The district samples were drawn according to the following design:

A formula was determined (see L. Kish, Survey Sampling, pp. 41-43) for the purpose of drawing an unbiased and efficient sample within each school district requesting data. To estimate the necessary sample size for each school district, using the finite population correction (per Kish et. al.), we assumed that:

- the variance of a typical variable of interest to the district is approximated by a dichotomous variable with proportion mean=.5, and
- the goal is for sample means to estimate population means within + or .05 with 95% confidence.

Solving the appropriate equation for n for each district provided the minimum sample size necessary to meet these conditions.

Once the equation was solved and the final sample size was determined, the sampling interval within classes was determined using the sample size as a proportion of the total 9-12 enrollment of the selected district. If there was more than one school participating from a district, the class lists from all schools were combined, sorted according to size, descending, and the interval applied.

Classes were selected from 2<sup>nd</sup> period class lists provided by the schools. 2<sup>nd</sup> period classes were used instead of English classes because, given that the necessary criterion was that EVERY student must have an EQUAL chance to be selected for the sample but only one chance, 1) some students would not necessarily be in an English class (seniors who finished their requirements early, students whose schedules would put English in another semester), or 2) some might be in two English classes. Every student HAD to be somewhere in 2<sup>nd</sup> period, but not every student would be in an English class.

The sample drawn with PCSample provides unbiased estimates at the state level. The school district samples provide unbiased estimates for each school district. Because participating districts were not selected randomly, aggregating the responses for all districts does not provide good estimates at the state level

#### **RACE/ETHNICITY**

Respondents were categorized by race/ethnicity following the Center for Disease Control and Prevention's guidelines. This is the CDC's protocol for tabulating ethnicity.

#### 1999 YRBS Race/Ethnicity Tabulations

The 1999 YRBS questionnaire contains the following "Choose all that apply" race/ethnicity question.

- 4. How do you describe yourself? (Select one or more responses.)
  - A. American Indian or Alaska Native
  - B. Asian
  - C. Black or African American
  - D. Hispanic or Latino
  - E. Native Hawaiian or Other Pacific Islander
  - F. White

If respondents select only one response, then race/ethnicity is set to "1" to "6" to match that response. If they select more than one response and include Hispanic, then race/ethnicity is set to "7" indicating "Multiple – Hispanic". If they select more than one response and do not include Hispanic, then race/ethnicity is set to "8" indicating "Multiple – Non-Hispanic". If they do not select anything, then race/ethnicity is set to missing. The original selected responses and the single, calculated race/ethnicity variable are both stored on the data sent to the sites.

The number of columns in tables will vary from site to site depending on the breakdown at each site. Race/ethnicity is tabulated according to the following conditions: "Hispanic" and "Multiple – Hispanic" are collapsed into "Hispanic". Any race with more than 100 respondents is reported separately as its own column. If there are two or more races that have fewer than 100 respondents, they are collapsed into "All Other Races". "Multiple – Non-Hispanic" has its own column regardless of the number of respondents. Tables will have a maximum of seven columns. The following key will be included at the front of the report section in sites' materials.

Report Heading	Indicates
American Indian	A person having origins in any of the original peoples of North and
or Alaska Native:	South America (including Central America), and who maintains
	tribal affiliation or community attachment.
Asian:	A person having origins in any of the original peoples of the Far
	East, Southeast Asia, or the Indian subcontinent including, for
	example, Cambodia, China, India, Japan, Korea, Malaysia,
	Pakistan, the Philippine Islands, Thailand, and Vietnam.
Black or African	A person having origins in any of the black racial groups of Africa.
American:	Terms such as "Haitian" or "Negro" can be used in addition to
	"Black or African American."
Hispanic or Latino:	A person of Cuban, Mexican, Puerto Rican, South or Central-

	American, or other Spanish culture or origin, regardless of race. The
	term, "Spanish origin," can be used in addition to "Hispanic or
	Latino." This category includes respondents who selected multiple
	responses and included "Hispanic or Latino."
Native Hawaiian or	A person having origins in any of the original peoples of Hawaii,
Other Pacific Islander:	Guam, Samoa, or other Pacific Islands.
White:	A person having origins in any of the original peoples of Europe, the
	Middle East, or North Africa.
All Other Races	The aggregate count of the above six races when there are less than
	100 respondents for a given race.
Multiple Races	Respondents who selected multiple responses but did not include
	"Hispanic or Latino."
1	

# Youth Risk Behavior Survey (YRBS) Item rationale for the 1999 questionnaire

This document contains the rationale for the 1999 High School YRBS questionnaire. Much of the material is applicable to other 1999 YRBS questionnaires.

# Behaviors That Result in Unintentional and Intentional Injuries

#### **QUESTION(S):**

When you rode a motorcycle during the past 12 months, how often did you wear a helmet?

When you rode a bicycle during the past 12 months, how often did you wear a helmet?

#### **RATIONALE:**

These questions measure the frequency of helmet use while riding motorcycles and bicycles. Head injury is the leading cause of death in motorcycle and bicycle crashes.<sup>1,2</sup> Unhelmeted motorcyclists are more likely to incur a fatal head injury and three times more likely to incur a nonfatal head injury than helmeted riders.<sup>3</sup> Bicycle helmets substantially reduce the risk for serious head injuries during bicycle-related crashes.<sup>4</sup>

#### **QUESTION(S):**

How often do you wear a seat belt when riding in a car driven by someone else?

#### **RATIONALE:**

This question measures the frequency with which students wear seat belts when riding in a motor vehicle. Use of seat belts is estimated to reduce the risk of a fatal motor vehicle injury by 45% and moderate to critical injuries by 50%.<sup>5</sup> Motor vehicle crash injuries are the leading cause of death among youth aged 15-24 in the United States.<sup>6</sup>

#### **QUESTION(S):**

During the past 30 days, how many times did you ride in a car or other vehicle driven by someone who had been drinking alcohol?

During the past 30 days, how many times did you drive a car or other vehicle when you had been drinking alcohol?

#### **RATIONALE:**

These questions measure the frequency with which students drive or ride as a passenger in a motor vehicle operated under the influence of alcohol or drugs. Approximately 30% of all motor vehicle crashes that result in injury involve alcohol,<sup>7</sup> and motor vehicle crashes are the leading cause of death among youth aged 15-24 in the United States.<sup>6</sup> The percentage of fatalities and injuries that occur in alcohol-involved motor vehicle crashes is 41% and 20%, respectively.<sup>8</sup>

#### QUESTION(S):

During the past 30 days, on how many days did you carry a weapon such as a gun, knife, or club?

During the past 30 days, on how many days did you carry a gun?

During the past 30 days, on how many days did you carry a weapon such as a gun, knife, or club on school property?

During the past 30 days, on how many days did you not go to school because you felt you would be unsafe at school or on your way to or from school?

During the past 12 months, how many times has someone threatened or injured you with a weapon such as a gun, knife, or club on school property?

#### **RATIONALE:**

These questions measure violence-related behaviors and school-related violent behaviors. 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 second leading cause of death among all youth aged 15-24 (20.3 per 100,000) and is the leading cause of death among black youth aged 15-24 (74.4 per 100,000). During adolescence, homicide rates increase substantially from a negligible rate of 1.5 per 100,000 in youth aged 5-14 to 20.3 per 100,000 in youth aged 15-24. Firearms markedly elevate the severity of the health consequences of violent behavior. Firearm-related homicide and firearm-related suicide accounted for 44% and 51%, respectively, of all firearm injury deaths in 1995. Unintentional firearm-related fatalities also are a critical problem among children and young adults in the United States. During 1996-1997, there were approximately 190,000 fights that did not include a weapon, 115,000 thefts, and 98,000 incidents of vandalism in US schools. Nearly 70% of school districts prohibit students from possessing and using a weapon in the school building or on school grounds.

Page A-5

#### **QUESTION(S):**

During the past 12 months, how many times were you in a physical fight?

During the past 12 months, how many times were you in a physical fight in which you were injured and had to be treated by a doctor or nurse?

During the past 12 months, how many times were you in a physical fight on school property?

During the past 12 months, did your boyfriend or girlfriend ever hit, slap, or physically hurt you on purpose?

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

#### **RATIONALE:**

These questions measure the frequency and severity of physical fights, school-related fights, and abusive behavior. Physical fighting is an antecedent for many fatal and nonfatal injuries.<sup>14</sup> During 1996-97, nearly 200,000 fights or physical attacks occurred at schools.<sup>12</sup> Nearly 60% of adolescents report at least one episode of dating violence<sup>15</sup>, while 20% report they had experienced forced sex.<sup>16</sup> Forced sex has been associated with suicidal ideation and attempts,<sup>17</sup> alcohol and drug use,<sup>18</sup> and increased risk of chronic diseases and somatic symptoms in both reproductive and nonreproductive organ systems.<sup>19</sup>

#### QUESTION(S):

During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities?

During the past 12 months, did you ever seriously consider attempting suicide?

During the past 12 months, did you make a plan about how you would attempt suicide?

During the past 12 months, how many times did you actually attempt suicide?

If you attempted suicide during the past 12 months, did any attempt result in an injury, poisoning, or overdose that had to be treated by a doctor or nurse?

#### RATIONALE:

These questions measure sadness, attempted suicides and the seriousness of those attempts. Suicide is the third leading cause of death among youth aged 15-24 and the second leading cause

of death among white youth aged 15-24.<sup>6</sup> The suicide rate for persons aged 15-24 has tripled since 1950, and in 1995 was 13.3 per 100,000.<sup>6,20</sup>

# Tobacco Use

### **QUESTION(S):**

Have you ever tried cigarette smoking, even one or two puffs?

How old were you when you smoked a whole cigarette for the first time?

During the past 30 days, on how many days did you smoke cigarettes?

During the past 30 days, on the days you smoked, how many cigarettes did you smoke per day?

During the past 30 days, how did you usually get your own cigarettes?

When you bought cigarettes in a store during the past 30 days, were you ever asked to show proof of age?

During the past 30 days, on how many days did you smoke cigarettes on school property?

Have you ever smoked cigarettes regularly, that is, at least one cigarette every day for 30 days?

Have you ever tried to quit smoking cigarettes?

#### **RATIONALE:**

These questions measure smoking experimentation, current smoking patterns, age of initiation, adherence to Federal regulations regarding sale of cigarettes, smoking on school property, and attempt to quit smoking. Tobacco use is considered the chief preventable cause of death in the United States<sup>21</sup> with over 20% of all deaths attributable to tobacco use.<sup>22</sup> Cigarette smoking is responsible for heart disease; cancers of the lung, larynx, mouth, esophagus, and bladder; stroke; and chronic obstructive pulmonary disease.<sup>21</sup> In addition, there is evidence that cigarette smokers are more likely to drink alcohol and use marijuana and cocaine as compared to non smokers.<sup>21</sup> If current patterns of smoking behavior persist, an estimated 5 million U.S. persons who were aged 0 –17 years in 1995 could die prematurely from smoking-related illnesses.<sup>23</sup> In 1996, the Food and Drug Administration issued regulations to implement the 1993 law known as the "Synar Amendment" which restricts the sale and distribution of cigarettes and smokeless tobacco to children and teenagers under age 18.<sup>24</sup> Over 80% of school districts prohibit tobacco use in the school building and on the grounds at all times.<sup>13</sup>

# **QUESTION(S):**

During the past 30 days, on how many days did you use chewing tobacco or snuff, such as Redman, Levi Garrett, Beechnut, Skoal, Skoal Bandits, or Copenhagen?

During the past 30 days, on how many days did you use chewing tobacco or snuff on school property?

During the past 30 days, on how many days did you smoke cigars, cigarillos, or little cigars?

#### **RATIONALE:**

These questions measure smokeless tobacco use, smokeless tobacco use on school property, and cigar use. Smokeless tobacco has been associated with leukoplakia, oral cancers, tooth and gum disease, and cardiovascular disease.<sup>21</sup> Smokeless tobacco use primarily begins in early adolescence.<sup>25</sup> Between 1970 and 1986, the prevalence of snuff use increased 15 times and chewing tobacco use increased four times among men aged 17-19.<sup>21</sup> Cigar smoking has been associated with cancers of the oral cavity, larynx, esophagus, and lung and with chronic obstructive lung disease.<sup>26</sup> In 1997, the prevalence of cigar use in the past month among high school students was 31.2% among males and 10.8% among females.<sup>27</sup>

# Alcohol and Other Drug Use

### **QUESTION(S):**

During your life, on how many days have you had at least one drink of alcohol?

How old were you when you had your first drink of alcohol other than a few sips?

During the past 30 days, on how many days did you have at least one drink of alcohol?

During the past 30 days, on how many days did you have 5 or more drinks of alcohol in a row, that is, within a couple of hours?

During the past 30 days, on how many days did you have at least one drink of alcohol on school property?

# **RATIONALE:**

These questions measure frequency of alcohol use, age of initiation, heavy drinking, and drinking on school property. Alcohol is a major contributing factor in approximately half of all homicides, suicides, and motor vehicle crashes, which are the leading causes of death and disability among young people.<sup>28</sup> Heavy drinking among youth has been linked to multiple sexual partners, use of marijuana, and poor academic performance.<sup>29</sup>

# QUESTION(S):

During you life, how many times have you used marijuana?

How old were you when you tried marijuana for the first time?

During the past 30 days, how many times did you use marijuana?

During the past 30 days, how many times did you use marijuana on school property?

During you life, how many times have you used any form of cocaine, including powder, crack, or freebase?

During the past 30 days, how many times did you use any form of cocaine, including powder, crack, or freebase?

During your life, how many times have you sniffed glue, or breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high?

During the past 30 days, how many times have you sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high?

During your life, how many times have you used heroin (also called smack, junk, or China White)?

During you life, how many times have you used methamphetamines (also called speed, crystal, crank, or ice)?

During your life, how many times have you taken steroid pills or shots without a doctor's prescription?

During your life, how many times have you used a needle to inject any illegal drug into your body?

During the past 12 months, has anyone offered, sold, or given you an illegal drug on school property?

#### **RATIONALE:**

These questions measure the frequency of marijuana, cocaine, inhalant, heroin, methamphetamine, steroid, and injected drug use. In addition to morbidity and mortality due to injury, drug abuse is related to suicide, early unwanted pregnancy, school failure, delinquency, and transmissions of sexually transmitted diseases (STD), including human immunodeficiency virus (HIV) infection.<sup>30,31</sup> Despite improvements in recent years, drug use is greater among high school students and other young adults in the U.S. than has been documented in any other industrialized nation in the world.<sup>32</sup>

# Sexual Behaviors That Result in HIV Infection, Other Sexually Transmitted Diseases, and Unintended Pregnancies

# **QUESTION(S):**

Have you ever had sexual intercourse?

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

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

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

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

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

Have you ever been taught about AIDS or HIV infection in school?

#### RATIONALE:

These questions measure the prevalence of sexual activity, number of sexual partners, age at first intercourse, alcohol and drug use related to sexual activity, condom use, and whether students have received HIV education. Early sexual activity is associated with unwanted pregnancy and sexually transmitted diseases (STD), including HIV infection, and negative effects on social and psychological development.<sup>33</sup> Number of sexual partners and age at first intercourse are associated with increased risk for STD. Alcohol and other drug use may serve as predisposing factors for initiation of sexual activity and unprotected sexual intercourse.<sup>34</sup> AIDS is the 6<sup>th</sup> leading cause of death for youth aged 15-24.<sup>6</sup> Use of latex condoms by males, when used consistently and correctly, are highly effective at reducing the risk of HIV infection and other sexually transmitted diseases (STDs).<sup>35</sup> In 1994, 86% of middle/junior and senior high schools taught HIV prevention education in a required course.<sup>36</sup>

#### QUESTION(S):

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

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

### **RATIONALE:**

These questions measure use of contraception and identify whether a student has been pregnant or gotten someone pregnant. Pregnancies that occur during adolescence place both mothers and infants at risk for lifelong social and economic disadvantages.<sup>33</sup> In 1995, almost one million teenage girls in the United States became pregnant, just over 243,000 teenagers obtained an abortion,<sup>37</sup> and nearly 492,000 gave birth.<sup>38</sup> In 1996, the birth rate for youth aged 15-19 was 54.4 per 1,000 women.<sup>38</sup> Sixty-six percent of all births among teenagers are the result of unintended pregnancy.<sup>39</sup>

# **Dietary Behaviors**

## **QUESTION(S):**

How tall are you without your shoes on?

How much do you weigh without your shoes on?

How do you describe your weight?

Which of the following are you trying to do about your weight?

During the past 30 days, did you exercise to lose weight or to keep from gaining weight?

During the past 30 days, did you eat less food, fewer calories, or foods low in fat to lose weight or to keep from gaining weight?

During the past 30 days, did you go without eating for 24 hours or more (also called fasting) to lose weight or to keep from gaining weight?

During the past 30 days, did you take any diet pills, powders, or liquids without a doctor's advice to lose weight or to keep from gaining weight? (Do not include meal replacement products such as Slim Fast.)

During the past 30 days, did you vomit or take laxatives to lose weight or to keep from gaining weight?

#### **RATIONALE:**

These questions measure self-reported height and weight, self-perception of body weight status, and specific weight control behaviors. Data on self-reported height and weight can be used to calculate body mass index and provide a reasonable proxy measure of whether students are overweight. Although overweight prevalence estimates derived from self-reported data are likely to be low, 40,41 they can be useful in tracking trends over time. Prevalence trends from national

surveys of adults using self-reported height and weight have been consistent with trend data from national surveys using measured heights and weights.<sup>42</sup> The prevalence of overweight among adolescents more than doubled from 5% in the late 1970s to 11% between 1988 and 1994.<sup>43</sup> Overweight or obesity acquired during childhood or adolescence may persist into adulthood and increase the risk later in life for coronary heart disease, gallbladder disease, some types of cancer, and osteoarthritis of the weight-bearing joints.<sup>44</sup> In adolescence, obesity is associated with hyperlipidemia, hypertension, abnormal glucose tolerance, and adverse psychological and social

consequences.<sup>45</sup> Studies have shown high rates of body dissatisfaction and dieting among adolescent females, with many engaging in unhealthy weight control behaviors, such as fasting and self-induced vomiting.<sup>46-49</sup>

## **QUESTION(S):**

During the past 7 days, how many times did you drink 100% fruit juices such as orange juice, apple juice, or grape juice? (Do not count punch, Kool-Aid, sports drinks, or other fruit-flavored drinks.)

During the past 7 days, how many times did you eat fruit? (Do not count fruit juice.)

During the past 7 days, how many times did you eat green salad?

During the past 7 days, how many times did you eat potatoes? (Do not count french fries, fried potatoes, or potato chips.)

During the past 7 days, how many times did you eat carrots?

During the past 7 days, how many times did you eat other vegetables? (Do not count green salad, potatoes, or carrots.)

During the past 7 days, how many glasses of milk did you drink? (Include the milk you drank in a glass or cup, from a carton, or with cereal. Count the half pint of milk served at school as equal to one glass.)

#### **RATIONALE:**

These questions measure food choices. Six of the questions address fruit and vegetable consumption, and one addresses consumption of milk. The fruit and vegetable questions are similar to questions asked of adults on CDC's Behavioral Risk Factor Survey.<sup>50</sup> Fruits and vegetables are good sources of complex carbohydrates, vitamins, minerals, and other substances that are important for good health. Dietary patterns with higher intakes of fruits and vegetables are associated with a variety of health benefits, including a decreased risk for some types of cancer.<sup>44,51</sup> Only 44% of male adolescents and 27% of female adolescents meet the minimum average daily goal of at least five servings of vegetables and fruits set by the *Dietary Guidelines for* 

*Americans*.<sup>52</sup> Milk is by far the largest single source of calcium for adolescents,<sup>53</sup> but it is estimated that about half of adolescent males and more than 80% of adolescent females do not meet dietary recommendations for calcium intake.<sup>54</sup> Calcium is essential for the formation and maintenance of bones and teeth;<sup>44</sup> low calcium intake during the first two to three decades of life is an important risk factor in the development of osteoporosis.<sup>55</sup>

# **Physical Activity**

#### **QUESTION(S):**

- On how many of the past 7 days did you exercise or participate in physical activity for at least 20 minutes that made you sweat and breathe hard, such as basketball, soccer, running, swimming laps, fast bicycling, fast dancing, or similar aerobic activity?
- On how many of the past 7 days did you participate in physical activity for at least 30 minutes that did not make you sweat or breathe hard, such as fast walking, slow bicycling, skating, pushing a lawn mower, or mopping floors?
- On how many of the past 7 days did you exercise to strengthen or tone your muscles, such as push-ups, sit-ups, or weight lifting?
- On an average school day, how many hours do you watch TV?
- In an average week when you are in school, on how many days do you go to physical education (PE) classes?
- During an average physical education (PE) class, how many minutes do you spend actually exercising or playing sports?
- During the past 12 months, on how many sports teams did you play? (Include any teams run by your school or community groups.)
- During the past 12 months, how many times were you injured while exercising, playing sports, or being physically active and had to be treated by a doctor or nurse?

#### **RATIONALE:**

These questions measure participation in physical activity, physical education classes, sports teams, television watching, and injuries during physical activity. Participation in regular physical activity helps build and maintain healthy bones and muscles, control weight, build lean muscle, and reduce fat; reduces feelings of depression and anxiety; and promotes psychological well-being.<sup>56</sup> In the long term, regular physical activity decreases the risk of dying prematurely, dying of heart disease, and developing diabetes, colon cancer, and high blood pressure.<sup>56</sup> Major decreases in vigorous physical activity occur during grades 9-12, particularly for girls; by 11th grade, more than half of female students are not participating regularly in vigorous physical

activity.<sup>56</sup> School physical education classes can increase adolescent participation in moderate to vigorous physical activity<sup>57,58</sup> and help adolescents develop the knowledge, attitudes, and skills they need to engage in lifelong physical activity.<sup>59</sup> Daily participation in physical education class has dropped from 42% in 1991 to 25% in 1995.<sup>56</sup> Television viewing is the principal sedentary leisure time behavior in the U.S. and studies have shown that television viewing in young people is related to obesity<sup>60</sup> and violent or aggressive behavior.<sup>61,62</sup> Among youth aged 14-17, sports-related injuries are the leading cause of non-fatal injuries.<sup>63</sup>

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