
MIDDLE SCHOOL

YOUTH RISK BEHAVIOR SURVEY 2003

Laura G. Whalen, M.P.H.

Jo Anne Grunbaum, Ed.D.

Steve Kinchen

Tim McManus, M.S.

Shari L. Shanklin, M.P.H.

Laura Kann, Ph.D.

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention

2005

TABLE OF CONTENTS

STATE AND LOCAL YOUTH RISK BEHAVIOR SURVEY COORDINATORS	iv
INTRODUCTION	1
METHODOLOGY	2
Questionnaire Development	2
Sampling	2
Data Collection	2
Data Analysis	2
RESULTS	4
Behaviors That Contribute to Unintentional Injuries	4
Behaviors That Contribute to Violence	5
Tobacco Use	7
Alcohol and Other Drug Use	9
Age of Initiation of Risk Behaviors	11
Sexual Behaviors That Contribute to Unintended Pregnancy and STDs, Including HIV Infection	12
Physical Activity	13
Overweight and Weight Control	15
DISCUSSION	19
Limitations	21
Uses of Middle School YRBS Data	21
REFERENCES	22
TABLES	23
Sample Sizes, Response Rates, and Demographic Characteristics	25
Alabama	27
Georgia	47
Hawaii	67
Maine	87
Mississippi	107
North Dakota	127
Wyoming	147
Dallas Independent School District, TX	167
District of Columbia Public Schools	187
Miami-Dade County Public Schools, FL	207
Milwaukee Public Schools, WI	227
San Bernardino Unified School District, CA	247
San Francisco Unified School District, CA	267

STATE AND LOCAL YOUTH RISK BEHAVIOR SURVEY COORDINATORS

SITE	COORDINATOR	AFFILIATION
Alabama	Marchina Toodle, M.Ed.	Department of Education
Dallas ISD, TX	Phyllis E. Simpson, Ph.D.	Dallas Independent School District
District of Columbia PS	Linda Wright, M.A.	District of Columbia Public Schools
Georgia	Dafna Kanny, Ph.D.	Division of Public Health and Social Services
Hawaii	Dave Randall, M.Ed.	Department of Education
Miami-Dade County PS, FL	Rodolfo Abella, Ph.D.	Miami-Dade County Public Schools
Maine	Joni Foster	Department of Education
Mississippi	Lei Zhang, M.Sc.	Department of Health
Milwaukee PS, WI	Robert Helminiak	Milwaukee Public Schools
North Dakota	Nicole L. Wright, M.S.	Department of Public Instruction
San Bernardino USD, CA	Charlene Davis-Long	San Bernardino Unified School District
San Francisco USD, CA	Phong Pham, M.A.	San Francisco Unified School District
Wyoming	Sunny Kaste	Department of Education

INTRODUCTION

In the United States, nearly two-thirds of all deaths among young people 10–14 years of age result from only five causes: motor-vehicle crashes (22.1%), other unintentional injuries (16.7%), cancer (12.9%), suicide (6.8%), and homicide (4.7%).¹ Substantial morbidity and social problems also result from the approximately 20,000 pregnancies that occur annually among girls under 15 years of age and the estimated 3 million cases of sexually transmitted diseases (STDs) that occur each year among persons between the ages of 10 and 19.^{2,3} Among adults age 25 or older, 62.9% of all deaths in the United States result from cardiovascular diseases (39.4%) and cancer (23.5%).¹

Leading causes of illness and death in all age groups in the United States are related to the following: behaviors that contribute to unintentional injuries and violence; tobacco use; alcohol and other drug use; sexual behaviors that contribute to unintended pregnancy and STDs, including human immunodeficiency virus (HIV) infection; unhealthy dietary behaviors; and physical inactivity—plus overweight. These behaviors are frequently interrelated and are often established during youth and extend into adulthood.

To monitor priority health-risk behaviors among adolescents and young adults in each of these six categories, the Centers for Disease Control and Prevention (CDC) developed the Youth Risk Behavior Surveillance System (YRBSS).⁴ The YRBSS includes national, state, and local school-based surveys of high school students in grades 9–12. In addition, some states and cities conduct a school-based Youth Risk Behavior Survey (YRBS) among middle school students. In 2003, eight states and eight cities conducted a middle school YRBS. This report summarizes results from the seven state and six local middle school surveys with weighted data in 2003. Six weighted state surveys and six weighted local surveys were conducted during spring 2003. One weighted state survey was conducted during fall 2003. Data from the one state and one local school-based survey with unweighted data are not included in this report.

M E T H O D O L O G Y

QUESTIONNAIRE DEVELOPMENT

The middle school YRBS questionnaire is modeled on the high school YRBS questionnaire and is designed to determine the prevalence of health-risk behaviors among middle school students. The topics covered on the middle school questionnaire include student demographics, height and weight, unintentional injury, violence, suicide ideation and attempts, tobacco use, drug and alcohol use, sexual risk behaviors, weight control, and physical activity. Questions about fruit, vegetable, and milk consumption, which are used on the high school questionnaire, are not included on the middle school questionnaire because of the complexity of the response options. Given the low prevalence of most risk behaviors among middle school students, the time frame used to measure unintentional injuries, violence, suicide ideation and attempts, alcohol and other drug use, and sexual behaviors is limited to lifetime rather than past 12 months or past 30 days. To meet their needs, sites may modify this questionnaire by adding or deleting questions. The CDC provides each site with a camera-ready copy of the questionnaire along with computer-scannable answer sheets.

SAMPLING

In 2003, each state and local school-based middle school YRBS employed a 2-stage cluster sample design to produce representative samples of students in middle schools in their jurisdiction. Four states (Georgia, Hawaii, Mississippi, and Wyoming) and five cities (District of Columbia, Miami, Milwaukee, San Bernardino, and San Francisco) conducted a YRBS in grades 6, 7, and 8. Three states (Alabama, Maine, and North Dakota) conducted a YRBS in grades 7 and 8. One city (Dallas) conducted a YRBS only in grade 8.

In seven states and one city, schools were selected with probability proportional to school enrollment size. In the

five other cities, all schools with any of the appropriate middle school grades were selected. At the second sampling stage, intact classes of a required subject (e.g., English) or intact classes during a required period (e.g., second period) were selected randomly in all sites. All students in selected classes were eligible to participate in the survey.

In 2003, the student sample sizes for the weighted state and local middle school YRBS ranged from 1,179 to 7,709. School response rates ranged from 76% to 100%, student response rates ranged from 67% to 91%, and overall response rates ranged from 65% to 88% (Table 1). The school response rate multiplied by student response rate produces an overall response rate for each site. The seven state and six local surveys included in this report had an overall response rate of 60% or more and appropriate documentation to allow the data to be weighted. Thus, the data are considered representative of students in specified grades in each jurisdiction.

DATA COLLECTION

Survey procedures for the state and local surveys were designed to protect students' privacy by allowing for anonymous and voluntary participation. Students completed the self-administered questionnaire during one class period and recorded their responses directly on a computer-scannable answer sheet. The core questionnaire contained 49 multiple-choice questions. To meet individual needs, four states and four cities added or deleted some questions. Before the survey was administered, local parental permission procedures were followed. Twelve sites conducted their middle school YRBS during spring 2003. One state survey was conducted during fall 2003.

DATA ANALYSIS

Each data set was cleaned and edited for inconsistencies. Missing data were not statistically imputed. The number

of completed questionnaires that failed quality-control* checks and were excluded from analysis from the state and local surveys ranged from 2 to 120 across states (median: 7) and from 2 to 10 across cities (median: 6.5).

At risk for becoming overweight and overweight were calculated from self-reported height and weight data applied to reference data from the National Health and Nutrition Examination Survey.⁵ At risk for becoming overweight was defined as having a body mass index (BMI)

* A questionnaire that fails quality control has < 20 remaining responses after editing or has the same answer to ≥ 15 questions in a row.

of $\geq 85^{\text{th}}$ percentile and $< 95^{\text{th}}$ percentile by age and sex. Overweight was defined as having a BMI of $\geq 95^{\text{th}}$ percentile by age and sex. A BMI of $\geq 95^{\text{th}}$ percentile by age and sex among young people is approximately equivalent to a BMI of ≥ 30 among adults. For an adult, a BMI of 30 is approximately 30 pounds overweight.

SAS[®] and SUDAAN were used to compute prevalence estimates and confidence intervals for all variables and all data sets.^{6,7} Medians and ranges are presented for states by grade and for cities by grade.

RESULTS

BEHAVIORS THAT CONTRIBUTE TO UNINTENTIONAL INJURIES

Seat Belt Use

Across states, the percentage of students who had rarely or never worn seat belts when riding in a car ranged as follows:

- 6th grade—4.4% to 18.4% (median: 10.2%)
(Tables 2b, 2c, 2e, 2g)
- 7th grade—6.5% to 20.3% (median: 11.0%)
(Tables 2a–2g)
- 8th grade—8.3% to 26.0% (median: 13.1%)
(Tables 2a–2g)

Across cities, the percentage of students who had rarely or never worn seat belts when riding in a car ranged as follows:

- 6th grade—5.4% to 20.9% (median: 13.0%)
(Tables 2i–2m)
- 7th grade—8.1% to 29.4% (median: 13.3%)
(Tables 2i–2m)
- 8th grade—10.1% to 33.1% (median: 13.5%)
(Tables 2h–2m)

Rode with a Driver Who Had Been Drinking Alcohol

Across states, the percentage of students who had ever ridden in a car with a driver who had been drinking alcohol ranged as follows:

- 6th grade—26.7% to 35.4% (median: 31.2%)
(Tables 2b, 2e, 2g)
- 7th grade—26.2% to 42.9% (median: 37.5%)
(Tables 2a, 2b, 2d, 2e, 2g)
- 8th grade—33.5% to 53.1% (median: 46.3%)
(Tables 2a, 2b, 2d, 2e, 2g)

Across cities, the percentage of students who had ever ridden in a car with a driver who had been drinking alcohol ranged as follows:

- 6th grade—13.7% to 35.7% (median: 20.6%)
(Tables 2i–2m)
- 7th grade—18.7% to 36.0% (median: 29.6%)
(Tables 2i–2m)
- 8th grade—22.6% to 58.2% (median: 40.5%)
(Tables 2h–2m)

Bicycle Helmet Use

Across states, among students who had ridden a bicycle, the percentage who had rarely or never worn a bicycle helmet ranged as follows:

- 6th grade—63.4% to 86.4% (median: 71.7%)
(Tables 3b, 3e, 3g)
- 7th grade—44.9% to 93.1% (median: 77.2%)
(Tables 3a, 3b, 3d–3g)
- 8th grade—52.0% to 93.2% (median: 84.9%)
(Tables 3a, 3b, 3d–3g)

Across cities, among students who had ridden a bicycle, the percentage who had rarely or never worn a bicycle helmet ranged as follows:

- 6th grade—51.5% to 87.0% (median: 73.8%)
(Tables 3i–3m)
- 7th grade—55.1% to 93.0% (median: 87.2%)
(Tables 3i–3m)
- 8th grade—64.1% to 94.2% (median: 89.5%)
(Tables 3h–3m)

Rollerblade or Skateboard Helmet Use

Across states, among students who had used rollerblades or rode a skateboard, the percentage who had rarely or never worn a helmet ranged as follows:

- 6th grade—67.2% to 87.6% (median: 67.8%)
(Tables 3b, 3e, 3g)
- 7th grade—60.1% to 87.9% (median: 77.0%)
(Tables 3a, 3b, 3d–3g)
- 8th grade—66.2% to 91.1% (median: 85.5%)
(Tables 3a, 3b, 3d–3g)

Across cities, among students who had used rollerblades or rode a skateboard, the percentage who had rarely or never worn a helmet ranged as follows:

- 6th grade—49.6% to 85.2% (median: 77.3%)
(Tables 3i–3m)
- 7th grade—61.0% to 89.1% (median: 86.2%)
(Tables 3i–3m)
- 8th grade—72.7% to 92.9% (median: 87.2%)
(Tables 3h–3m)

BEHAVIORS THAT CONTRIBUTE TO VIOLENCE

Carried a Weapon

Across states, the percentage of students who had ever carried a weapon (e.g., a gun, knife, or club) ranged as follows:

- 6th grade—31.0% to 50.0% (median: 32.6%)
(Tables 4b, 4e, 4g)
- 7th grade—33.2% to 44.5% (median: 36.9%)
(Tables 4a, 4b, 4d, 4e, 4g)

- 8th grade—38.6% to 53.4% (median: 40.8%)
(Tables 4a, 4b, 4d, 4e, 4g)

Across cities, the percentage of students who had ever carried a weapon (e.g., a gun, knife, or club) ranged as follows:

- 6th grade—13.4% to 25.3% (median: 21.3%)
(Tables 4i–4l)
- 7th grade—25.8% to 33.4% (median: 27.3%)
(Tables 4i–4l)
- 8th grade—27.3% to 43.7% (median: 37.2%)
(Tables 4h–4l)

In a Physical Fight

Across states, the percentage of students who had ever been in a physical fight ranged as follows:

- 6th grade—49.7% to 59.6% (median: 56.1%)
(Tables 4b, 4e, 4g)
- 7th grade—55.1% to 64.8% (median: 58.6%)
(Tables 4a, 4b, 4d, 4e, 4g)
- 8th grade—53.9% to 65.8% (median: 64.9%)
(Tables 4a, 4b, 4d, 4e, 4g)

Across cities, the percentage of students who had ever been in a physical fight ranged as follows:

- 6th grade—51.4% to 66.3% (median: 62.2%)
(Tables 4i–4l)
- 7th grade—55.9% to 76.9% (median: 66.7%)
(Tables 4i–4l)
- 8th grade—64.1% to 81.6% (median: 72.2%)
(Tables 4h–4l)

Hurt in a Physical Fight

Across states, the percentage of students who had ever been hurt in a physical fight and had to be treated by a doctor or nurse ranged as follows:

- 6th grade—6.5% to 7.6% (median: 6.9%)
(Tables 4b, 4e, 4g)
- 7th grade—7.0% to 8.1% (median: 7.2%)
(Tables 4a, 4b, 4d, 4e, 4g)
- 8th grade—5.7% to 7.6% (median: 7.2%)
(Tables 4a, 4b, 4d, 4e, 4g)

Across cities, the percentage of students who had ever been hurt in a physical fight and had to be treated by a doctor or nurse ranged as follows:

- 6th grade—4.5% to 11.1% (median: 7.0%)
(Tables 4i–4m)
- 7th grade—5.6% to 10.9% (median: 6.8%)
(Tables 4i–4m)
- 8th grade—5.6% to 15.1% (median: 7.0%)
(Tables 4h–4m)

Seriously Thought About Killing Themselves

Across states, the percentage of students who had ever seriously thought about killing themselves ranged as follows:

- 6th grade—16.2% to 18.7% (median: 17.7%)
(Tables 5b, 5c, 5e, 5g)
- 7th grade—17.5% to 24.7% (median: 18.7%)
(Tables 5a–5e, 5g)
- 8th grade—21.8% to 27.8% (median: 24.0%)
(Tables 5a–5e, 5g)

Across cities, the percentage of students who had ever seriously thought about killing themselves ranged as follows:

- 6th grade—15.1% to 30.2% (median: 18.2%)
(Tables 5i–5m)

- 7th grade—19.2% to 26.6% (median: 21.5%)
(Tables 5i–5m)
- 8th grade—20.0% to 29.3% (median: 26.6%)
(Tables 5h–5m)

Made a Plan About How to Kill Themselves

Across states, the percentage of students who had ever made a plan about how to kill themselves ranged as follows:

- 6th grade—8.5% to 11.8% (median: 10.8%)
(Tables 5b, 5c, 5e, 5g)
- 7th grade—10.0% to 15.9% (median: 12.0%)
(Tables 5a–5e, 5g)
- 8th grade—14.0% to 19.8% (median: 17.3%)
(Tables 5a–5e, 5g)

Across cities, the percentage of students who had ever made a plan about how to kill themselves ranged as follows:

- 6th grade—7.5% to 16.7% (median: 9.6%)
(Tables 5i–5m)
- 7th grade—10.2% to 15.8% (median: 12.9%)
(Tables 5i–5m)
- 8th grade—13.2% to 18.0% (median: 15.7%)
(Tables 5h–5m)

Tried to Kill Themselves

Across states, the percentage of students who had ever tried to kill themselves ranged as follows:

- 6th grade—6.1% to 8.0% (median: 7.2%)
(Tables 5b, 5c, 5e, 5g)
- 7th grade—7.3% to 11.2% (median: 8.7%)
(Tables 5a–5e, 5g)
- 8th grade—9.5% to 13.2% (median: 10.9%)
(Tables 5a–5e, 5g)

Across cities, the percentage of students who had ever tried to kill themselves ranged as follows:

- 6th grade—4.7% to 12.2% (median: 6.5%)
(Tables 5i–5m)
- 7th grade—8.5% to 14.8% (median: 9.9%)
(Tables 5i–5m)
- 8th grade—10.0% to 14.3% (median: 12.3%)
(Tables 5h–5m)

TOBACCO USE

Lifetime Cigarette Use

Across states, the percentage of students who had ever tried cigarette smoking (even one or two puffs) (i.e., lifetime cigarette use) ranged as follows:

- 6th grade—12.5% to 37.8% (median: 24.5%)
(Tables 6b, 6c, 6e, 6g)
- 7th grade—20.6% to 50.9% (median: 37.0%)
(Tables 6a–6g)
- 8th grade—32.9% to 58.6% (median: 37.8%)
(Tables 6a–6g)

Across cities, the percentage of students who had ever tried cigarette smoking (even one or two puffs) (i.e., lifetime cigarette use) ranged as follows:

- 6th grade—13.2% to 36.5% (median: 18.8%)
(Tables 6i–6m)
- 7th grade—19.1% to 45.8% (median: 30.0%)
(Tables 6i–6m)
- 8th grade—28.6% to 58.0% (median: 49.0%)
(Tables 6h–6m)

Lifetime Daily Cigarette Use

Across states, the percentage of students who had ever smoked at least one cigarette every day for 30 days (i.e., lifetime daily cigarette use) ranged as follows:

- 6th grade—3.2% to 6.9% (median: 3.5%)
(Tables 6b, 6e, 6g)
- 7th grade—3.2% to 9.4% (median: 5.0%)
(Tables 6a, 6b, 6d–6g)
- 8th grade—7.1% to 11.8% (median: 8.4%)
(Tables 6a, 6b, 6d–6g)

Across cities, the percentage of students who had ever smoked at least one cigarette every day for 30 days (i.e., lifetime daily cigarette use) ranged as follows:

- 6th grade—1.7% to 8.6% (median: 3.4%)
(Tables 6i–6m)
- 7th grade—3.2% to 5.9% (median: 4.4%)
(Tables 6i–6m)
- 8th grade—3.6% to 8.9% (median: 5.8%)
(Tables 6h–6m)

Current Cigarette Use

Across states, the percentage of students who had smoked cigarettes on 1 or more of the 30 days preceding the survey (i.e., current cigarette use) ranged as follows:

- 6th grade—2.7% to 9.1% (median: 5.0%)
(Tables 7b, 7c, 7e, 7g)
- 7th grade—5.0% to 17.6% (median: 9.1%)
(Tables 7a–7g)
- 8th grade—10.5% to 19.4% (median: 12.5%)
(Tables 7a–7g)

Across cities, the percentage of students who had smoked cigarettes on 1 or more of the 30 days preceding the survey (i.e., current cigarette use) ranged as follows:

- 6th grade—2.4% to 5.2% (median: 4.9%)
(Tables 7i–7m)
- 7th grade—5.0% to 8.6% (median: 7.0%)
(Tables 7i–7m)
- 8th grade—6.3% to 16.5% (median: 10.3%)
(Tables 7h–7m)

Current Frequent Cigarette Use

Across states, the percentage of students who had smoked cigarettes on 20 or more of the 30 days preceding the survey (i.e., current frequent cigarette use) ranged as follows:

- 6th grade—0.0% to 3.2% (median: 1.5%)
(Tables 7b, 7c, 7e, 7g)
- 7th grade—0.7% to 4.4% (median: 1.6%)
(Tables 7a–7g)
- 8th grade—2.6% to 6.2% (median: 4.1%)
(Tables 7a–7g)

Across cities, the percentage of students who had smoked cigarettes on 20 or more of the 30 days preceding the survey (i.e., current frequent cigarette use) ranged as follows:

- 6th grade—0.0% to 1.2% (median: 0.6%)
(Tables 7i–7m)
- 7th grade—0.3% to 1.4% (median: 0.8%)
(Tables 7i–7m)
- 8th grade—1.4% to 2.6% (median: 1.7%)
(Tables 7h–7m)

Current Smokeless Tobacco Use

Across states, the percentage of students who had used smokeless tobacco (e.g., chewing tobacco, snuff, or dip) on 1 or more of the 30 days preceding the survey (i.e., current smokeless tobacco use) ranged as follows:

- 6th grade—1.1% to 6.1% (median: 4.7%)
(Tables 8b, 8c, 8e, 8g)
- 7th grade—1.6% to 9.2% (median: 3.9%)
(Tables 8a–8g)
- 8th grade—3.3% to 8.3% (median: 5.0%)
(Tables 8a–8g)

Across cities, the percentage of students who had used smokeless tobacco (e.g., chewing tobacco, snuff, or dip) on 1 or more of the 30 days preceding the survey (i.e., current smokeless tobacco use) ranged as follows:

- 6th grade—2.0% to 13.5% (median: 3.2%)
(Tables 8i–8l)
- 7th grade—2.4% to 5.9% (median: 4.6%)
(Tables 8i–8l)
- 8th grade—3.1% to 6.9% (median: 4.4%)
(Tables 8h–8l)

Current Cigar Use

Across states, the percentage of students who had smoked cigars, cigarillos, or little cigars on 1 or more of the 30 days preceding the survey (i.e., current cigar use) ranged as follows:

- 6th grade—4.5% to 6.5% (median: 4.8%)
(Tables 8b, 8e, 8g)
- 7th grade—2.6% to 9.7% (median: 4.9%)
(Tables 8a, 8b, 8d–8g)
- 8th grade—5.5% to 13.9% (median: 7.5%)
(Tables 8a, 8b, 8d–8g)

Across cities, the percentage of students who had smoked cigars, cigarillos, or little cigars on 1 or more of the 30 days preceding the survey (i.e., current cigar use) ranged as follows:

- 6th grade—2.4% to 6.5% (median: 4.6%)
(Tables 8i–8l)
- 7th grade—7.0% to 9.8% (median: 7.1%)
(Tables 8i–8l)
- 8th grade—6.8% to 14.5% (median: 9.3%)
(Tables 8h–8l)

Current Tobacco Use

Across states, the percentage of students who had reported current cigarette use, current smokeless tobacco use, or current cigar use on 1 or more of the 30 days preceding the survey (i.e., current tobacco use) ranged as follows:

- 6th grade—7.9% to 13.5% (median: 8.7%)
(Tables 8b, 8e, 8g)
- 7th grade—8.6% to 22.6% (median: 13.0%)
(Tables 8a, 8b, 8d–8g)
- 8th grade—13.2% to 26.3% (median: 16.8%)
(Tables 8a, 8b, 8d–8g)

Across cities, the percentage of students who had reported current cigarette use, current smokeless tobacco use, or current cigar use on 1 or more of the 30 days preceding the survey (i.e., current tobacco use) ranged as follows:

- 6th grade—3.9% to 15.4% (median: 7.7%)
(Tables 8i–8l)
- 7th grade—9.4% to 12.4% (median: 11.5%)
(Tables 8i–8l)
- 8th grade—10.0% to 20.6% (median: 15.2%)
(Tables 8h–8l)

ALCOHOL AND OTHER DRUG USE

Lifetime Alcohol Use

Across states, the percentage of students who had ever had a drink of alcohol (other than a few sips) (i.e., lifetime alcohol use) ranged as follows:

- 6th grade—23.9% to 36.7% (median: 28.0%)
(Tables 9b, 9e, 9g)
- 7th grade—29.8% to 48.4% (median: 43.8%)
(Tables 9a, 9b, 9d, 9e, 9g)
- 8th grade—45.7% to 65.5% (median: 53.8%)
(Tables 9a, 9b, 9d, 9e, 9g)

Across cities, the percentage of students who had ever had a drink of alcohol (other than a few sips) (i.e., lifetime alcohol use) ranged as follows:

- 6th grade—17.4% to 44.1% (median: 27.7%)
(Tables 9i–9m)
- 7th grade—29.8% to 45.4% (median: 41.5%)
(Tables 9i–9m)
- 8th grade—36.7% to 68.3% (median: 54.3%)
(Tables 9h–9m)

Lifetime Marijuana Use

Across states, the percentage of students who had ever used marijuana (i.e., lifetime marijuana use) ranged as follows:

- 6th grade—4.3% to 10.6% (median: 5.4%)
(Tables 9b, 9e, 9g)
- 7th grade—9.0% to 14.8% (median: 11.8%)
(Tables 9a, 9b, 9d, 9e, 9g)
- 8th grade—17.6% to 24.6% (median: 19.0%)
(Tables 9a, 9b, 9d, 9e, 9g)

Across cities, the percentage of students who had ever used marijuana (i.e., lifetime marijuana use) ranged as follows:

- 6th grade—3.7% to 11.8% (median: 7.6%)
(Tables 9i–9m)
- 7th grade—8.4% to 18.2% (median: 13.9%)
(Tables 9i–9m)
- 8th grade—12.1% to 33.0% (median: 24.3%)
(Tables 9h–9m)

Lifetime Cocaine Use

Across states, the percentage of students who had ever used any form of cocaine (e.g., powder, “crack,”[†] “freebase”[‡]) (i.e., lifetime cocaine use) ranged as follows:

- 6th grade—2.7% to 6.3% (median: 4.1%)
(Tables 9b, 9e, 9g)
- 7th grade—2.7% to 5.9% (median: 3.6%)
(Tables 9a, 9b, 9d, 9e, 9g)
- 8th grade—5.1% to 7.6% (median: 6.3%)
(Tables 9a, 9b, 9d, 9e, 9g)

Across cities, the percentage of students who had ever used any form of cocaine (e.g., powder, “crack,”[†] “freebase”[‡]) (i.e., lifetime cocaine use) ranged as follows:

- 6th grade—1.4% to 7.1% (median: 3.0%)
(Tables 9i–9m)
- 7th grade—2.8% to 5.4% (median: 3.9%)
(Tables 9i–9m)
- 8th grade—3.6% to 9.8% (median: 4.8%)
(Tables 9h–9m)

[†] Pellet-sized pieces of highly purified cocaine.

[‡] A process whereby cocaine is dissolved in ether or sodium hydroxide and the precipitate filtered off.

Lifetime Inhalant Use

Across states, the percentage of students who had ever sniffed glue, breathed the contents of spray cans, or inhaled any paints or sprays to get high (i.e., lifetime inhalant use) ranged as follows:

- 6th grade—11.7% to 14.6% (median: 12.0%)
(Tables 10b, 10e, 10g)
- 7th grade—11.8% to 16.0% (median: 12.5%)
(Tables 10a, 10b, 10d, 10e, 10g)
- 8th grade—12.6% to 16.9% (median: 15.7%)
(Tables 10a, 10b, 10d, 10e, 10g)

Across cities, the percentage of students who had ever sniffed glue, breathed the contents of spray cans, or inhaled any paints or sprays to get high (i.e., lifetime inhalant use) ranged as follows:

- 6th grade—6.0% to 12.2% (median: 8.4%)
(Tables 10i–10m)
- 7th grade—5.6% to 14.6% (median: 12.4%)
(Tables 10i–10m)
- 8th grade—6.5% to 16.5% (median: 10.6%)
(Tables 10h–10m)

Lifetime Steroid Use

Across states, the percentage of students who had ever used steroids (i.e., lifetime steroid use) ranged as follows:

- 6th grade—2.1% to 4.6% (median: 2.7%)
(Tables 10b, 10e, 10g)
- 7th grade—3.1% to 4.5% (median: 3.9%)
(Tables 10a, 10b, 10d, 10e, 10g)
- 8th grade—3.1% to 5.6% (median: 3.9%)
(Tables 10a, 10b, 10d, 10e, 10g)

Across cities, the percentage of students who had ever used steroids (i.e., lifetime steroid use) ranged as follows:

- 6th grade—0.9% to 2.9% (median: 1.7%)
(Tables 10i–10m)
- 7th grade—1.6% to 4.6% (median: 2.4%)
(Tables 10i–10m)
- 8th grade—1.6% to 4.0% (median: 2.8%)
(Tables 10h–10m)

AGE OF INITIATION OF RISK BEHAVIORS

Cigarette Smoking Before Age 11 Years

Across states, the percentage of students who had smoked a whole cigarette for the first time before age 11 years ranged as follows:

- 6th grade—4.8% to 13.6% (median: 6.8%)
(Tables 11b, 11c, 11e, 11g)
- 7th grade—6.0% to 15.9% (median: 8.7%)
(Tables 11a–11g)
- 8th grade—6.9% to 16.2% (median: 10.6%)
(Tables 11a–11g)

Across cities, the percentage of students who had smoked a whole cigarette for the first time before age 11 years ranged as follows:

- 6th grade—4.3% to 9.3% (median: 5.5%)
(Tables 11i–11m)
- 7th grade—6.1% to 9.4% (median: 7.0%)
(Tables 11i–11m)
- 8th grade—5.5% to 11.0% (median: 7.7%)
(Tables 11h–11m)

Alcohol Use Before Age 11 Years

Across states, the percentage of students who had had their first drink of alcohol (other than a few sips) before age 11 years ranged as follows:

- 6th grade—13.8% to 25.8% (median: 17.2%)
(Tables 11b, 11e, 11g)
- 7th grade—13.6% to 24.0% (median: 17.4%)
(Tables 11a, 11b, 11d–11g)
- 8th grade—13.3% to 29.0% (median: 17.3%)
(Tables 11a, 11b, 11d–11g)

Across cities, the percentage of students who had had their first drink of alcohol (other than a few sips) before age 11 years ranged as follows:

- 6th grade—14.1% to 22.8% (median: 17.5%)
(Tables 11i–11m)
- 7th grade—16.7% to 23.0% (median: 20.4%)
(Tables 11i–11m)
- 8th grade—16.8% to 25.2% (median: 20.7%)
(Tables 11h–11m)

Marijuana Use Before Age 11 Years

Across states, the percentage of students who had tried marijuana for the first time before age 11 years ranged as follows:

- 6th grade—2.0% to 3.7% (median: 3.1%)
(Tables 11b, 11e, 11g)
- 7th grade—1.3% to 3.8% (median: 3.0%)
(Tables 11a, 11b, 11d–11g)
- 8th grade—1.3% to 4.2% (median: 2.4%)
(Tables 11a, 11b, 11d–11g)

Across cities, the percentage of students who had tried marijuana for the first time before age 11 years ranged as follows:

- 6th grade—0.5% to 5.6% (median: 1.8%)
(Tables 11i–11m)
- 7th grade—1.3% to 4.5% (median: 2.9%)
(Tables 11i–11m)
- 8th grade—1.7% to 5.6% (median: 3.0%)
(Tables 11h–11m)

SEXUAL BEHAVIORS THAT CONTRIBUTE TO UNINTENDED PREGNANCY AND STDS, INCLUDING HIV INFECTION

Sexual Intercourse

Across states, the percentage of students who had ever had sexual intercourse ranged as follows:

- 6th grade—3.5% to 21.3% (median: 8.6%)
(Tables 12c, 12e, 12g)
- 7th grade—6.6% to 31.2% (median: 15.6%)
(Tables 12a, 12c–12e, 12g)
- 8th grade—14.0% to 41.1% (median: 19.1%)
(Tables 12a, 12c–12e, 12g)

Across cities, the percentage of students who had ever had sexual intercourse ranged as follows:

- 6th grade—4.9% to 20.7% (median: 10.0%)
(Tables 12i–12m)
- 7th grade—9.0% to 34.8% (median: 19.9%)
(Tables 12i–12m)
- 8th grade—11.1% to 40.5% (median: 33.4%)
(Tables 12h–12m)

Sexual Intercourse Before Age 11 Years

Across states, the percentage of students who had had sexual intercourse for the first time before age 11 years ranged as follows:

- 6th grade—3.9% to 10.4% (median: 7.1%)
(Tables 12e, 12g)
- 7th grade—3.4% to 9.8% (median: 7.6%)
(Tables 12a, 12d, 12e, 12g)
- 8th grade—2.9% to 9.9% (median: 4.9%)
(Tables 12a, 12d, 12e, 12g)

Across cities, the percentage of students who had had sexual intercourse for the first time before age 11 years ranged as follows:

- 6th grade—3.1% to 10.3% (median: 5.4%)
(Tables 12i–12m)
- 7th grade—2.7% to 13.9% (median: 7.8%)
(Tables 12i–12m)
- 8th grade—2.4% to 8.9% (median: 6.8%)
(Tables 12h–12m)

Three or More Sex Partners

Across states, the percentage of students who had ever had sexual intercourse with ≥ 3 sex partners ranged as follows:

- 6th grade—2.6% to 5.9% (median: 4.3%)
(Tables 12e, 12g)
- 7th grade—3.2% to 13.2% (median: 8.5%)
(Tables 12a, 12d, 12e, 12g)
- 8th grade—5.6% to 18.8% (median: 9.7%)
(Tables 12a, 12d, 12e, 12g)

Across cities, the percentage of students who had ever had sexual intercourse with ≥ 3 sex partners ranged as follows:

- 6th grade—1.7% to 6.6% (median: 3.9%)
(Tables 12i–12m)
- 7th grade—3.1% to 14.5% (median: 8.9%)
(Tables 12i–12m)
- 8th grade—4.8% to 18.0% (median: 12.2%)
(Tables 12h–12m)

Condom Use During Last Sexual Intercourse

Across states, among students who had ever had sexual intercourse, the percentage who reported that either they or their partner had used a condom during last sexual intercourse ranged as follows:

- 6th grade—Data not available
- 7th grade—60.1% to 74.0% (median: 69.4%)
(Tables 13a, 13c–13e, 13g)
- 8th grade—58.1% to 77.6% (median: 69.4%)
(Tables 13a, 13c–13e, 13g)

Across cities, among students who had ever had sexual intercourse, the percentage who reported that either they or their partner had used a condom during last sexual intercourse ranged as follows:

- 6th grade—Data not available
- 7th grade—73.1% to 81.8% (median: 75.3%)
(Tables 13i–13l)
- 8th grade—67.3% to 81.7% (median: 70.8%)
(Tables 13h–13l)

Acquired Immunodeficiency Syndrome (AIDS) or HIV Infection Education

Across states, the percentage of students who had ever been taught in school about AIDS or HIV infection ranged as follows:

- 6th grade—34.2% to 62.4% (median: 47.7%)
(Tables 13b, 13c, 13e, 13g)
- 7th grade—51.6% to 83.4% (median: 71.8%)
(Tables 13a–13g)
- 8th grade—70.5% to 88.7% (median: 85.8%)
(Tables 13a–13g)

Across cities, the percentage of students who had ever been taught in school about AIDS or HIV infection ranged as follows:

- 6th grade—38.3% to 79.0% (median: 59.5%)
(Tables 13i–13m)
- 7th grade—73.3% to 83.5% (median: 77.5%)
(Tables 13i–13m)
- 8th grade—67.7% to 88.0% (median: 81.5%)
(Tables 13h–13m)

PHYSICAL ACTIVITY

Sufficient Vigorous Physical Activity

Across states, the percentage of students who had exercised or participated in physical activities that made them sweat and breathe hard (e.g., basketball, soccer, running, swimming laps, fast bicycling, fast dancing, or similar aerobic activities) for 20 minutes or more on at least 3 of the 7 days preceding the survey (i.e., sufficient vigorous physical activity) ranged as follows:

- 6th grade—58.7% to 79.5% (median: 62.5%)
(Tables 14b, 14c, 14e, 14g)
- 7th grade—63.7% to 82.5% (median: 69.5%)
(Tables 14a–14g)
- 8th grade—59.7% to 80.9% (median: 73.8%)
(Tables 14a–14g)

Across cities, the percentage of students who had exercised or participated in physical activities that made them sweat and breathe hard (e.g., basketball, soccer, running, swimming laps, fast bicycling, fast dancing, or similar aerobic activities) for 20 minutes or more on at least 3 of the 7 days preceding the survey (i.e., sufficient vigorous physical activity) ranged as follows:

- 6th grade—48.4% to 60.4% (median: 57.3%)
(Tables 14i–14m)
- 7th grade—58.7% to 68.4% (median: 65.2%)
(Tables 14i–14m)
- 8th grade—54.5% to 73.8% (median: 65.3%)
(Tables 14h–14m)

Played on Sports Teams

Across states, the percentage of students who had played on any sports teams run by their school or community groups ranged as follows:

- 6th grade—52.9% to 69.3% (median: 53.2%)
(Tables 14b, 14e, 14g)
- 7th grade—54.6% to 73.2% (median: 58.7%)
(Tables 14a, 14b, 14d, 14e, 14g)
- 8th grade—53.8% to 72.7% (median: 59.7%)
(Tables 14a, 14b, 14d, 14e, 14g)

Across cities, the percentage of students who had played on any sports teams run by their school or community groups ranged as follows:

- 6th grade—41.4% to 50.9% (median: 45.9%)
(Tables 14i–14m)
- 7th grade—39.3% to 50.1% (median: 45.1%)
(Tables 14i–14m)
- 8th grade—42.0% to 50.2% (median: 45.3%)
(Tables 14h–14m)

Watched Television (TV)

Across states, the percentage of students who had watched TV 3 or more hours per day on an average school day ranged as follows:

- 6th grade—29.7% to 52.8% (median: 44.7%)
(Tables 14b, 14c, 14e, 14g)
- 7th grade—30.2% to 55.6% (median: 42.4%)
(Tables 14a–14g)
- 8th grade—30.1% to 64.2% (median: 47.3%)
(Tables 14a–14g)

Across cities, the percentage of students who had watched TV 3 or more hours per day on an average school day ranged as follows:

- 6th grade—43.8% to 56.6% (median: 52.3%)
(Tables 14i–14m)
- 7th grade—53.6% to 68.5% (median: 60.2%)
(Tables 14i–14m)
- 8th grade—55.9% to 67.3% (median: 62.6%)
(Tables 14h–14m)

Enrolled in Physical Education Class

Across states, the percentage of students who went to physical education (PE) classes on one or more days in an average week when they were in school (i.e., enrolled in PE class) ranged as follows:

- 6th grade—58.5% to 95.5% (median: 65.9%)
(Tables 15b, 15e, 15g)
- 7th grade—58.5% to 90.8% (median: 83.1%)
(Tables 15a, 15b, 15d–15g)
- 8th grade—60.0% to 90.3% (median: 82.5%)
(Tables 15a, 15b, 15d–15g)

Across cities, the percentage of students who went to physical education (PE) classes on one or more days in an average week when they were in school (i.e., enrolled in PE class) ranged as follows:

- 6th grade—32.9% to 97.5% (median: 77.0%)
(Tables 15i–15m)
- 7th grade—42.3% to 97.1% (median: 73.6%)
(Tables 15i–15m)
- 8th grade—37.5% to 96.9% (median: 72.1%)
(Tables 15h–15m)

Attended PE Class Daily

Across states, the percentage of students who went to PE classes 5 days in an average week when they were in school (i.e., attended PE class daily) ranged as follows:

- 6th grade—25.4% to 45.8% (median: 44.2%)
(Tables 15b, 15e, 15g)
- 7th grade—15.7% to 77.5% (median: 37.9%)
(Tables 15a, 15b, 15d–15g)
- 8th grade—14.1% to 77.5% (median: 44.0%)
(Tables 15a, 15b, 15d–15g)

Across cities, the percentage of students who went to PE classes 5 days in an average week when they were in school (i.e., attended PE class daily) ranged as follows:

- 6th grade—10.8% to 89.7% (median: 30.6%)
(Tables 15i–15m)
- 7th grade—8.7% to 91.2% (median: 24.2%)
(Tables 15i–15m)
- 8th grade—11.7% to 88.0% (median: 29.1%)
(Tables 15h–15m)

OVERWEIGHT AND WEIGHT CONTROL

At Risk for Becoming Overweight

Across states, the percentage of students who were at risk for becoming overweight ranged as follows:

- 6th grade—19.5% to 21.7% (median: 20.8%)
(Tables 16b, 16c, 16e, 16g)
- 7th grade—13.3% to 23.1% (median: 18.0%)
(Tables 16a–16g)
- 8th grade—12.9% to 19.3% (median: 17.7%)
(Tables 16a–16g)

Across cities, the percentage of students who were at risk for becoming overweight ranged as follows:

- 6th grade—17.9% to 24.1% (median: 20.8%)
(Tables 16i–16m)
- 7th grade—20.5% to 22.5% (median: 21.0%)
(Tables 16i–16m)
- 8th grade—16.3% to 21.5% (median: 18.5%)
(Tables 16h–16m)

Overweight

Across states, the percentage of students who were overweight ranged as follows:

- 6th grade—13.3% to 23.8% (median: 19.8%)
(Tables 16b, 16c, 16e, 16g)
- 7th grade—9.0% to 17.3% (median: 14.7%)
(Tables 16a–16g)
- 8th grade—7.6% to 17.9% (median: 12.8%)
(Tables 16a–16g)

Across cities, the percentage of students who were overweight ranged as follows:

- 6th grade—18.8% to 23.4% (median: 20.1%)
(Tables 16i–16m)
- 7th grade—12.7% to 19.9% (median: 15.6%)
(Tables 16i–16m)
- 8th grade—9.8% to 17.1% (median: 15.1%)
(Tables 16h–16m)

Described Themselves as Overweight

Across states, the percentage of students who described themselves as slightly or very overweight ranged as follows:

- 6th grade—21.3% to 26.3% (median: 23.4%)
(Tables 17b, 17c, 17e, 17g)
- 7th grade—23.9% to 32.4% (median: 26.2%)
(Tables 17a–17g)
- 8th grade—26.0% to 32.5% (median: 28.5%)
(Tables 17a–17g)

Across cities, the percentage of students who described themselves as slightly or very overweight ranged as follows:

- 6th grade—18.3% to 24.7% (median: 20.4%)
(Tables 17i–17m)
- 7th grade—18.3% to 28.7% (median: 26.2%)
(Tables 17i–17m)
- 8th grade—21.2% to 32.0% (median: 29.3%)
(Tables 17h–17m)

Trying to Lose Weight

Across states, the percentage of students who were trying to lose weight ranged as follows:

- 6th grade—40.1% to 47.7% (median: 44.5%)
(Tables 17b, 17c, 17e, 17g)

- 7th grade—39.8% to 47.4% (median: 45.0%)
(Tables 17a–17g)
- 8th grade—41.6% to 50.2% (median: 48.0%)
(Tables 17a–17g)

Across cities, the percentage of students who were trying to lose weight ranged as follows:

- 6th grade—37.5% to 45.4% (median: 42.0%)
(Tables 17i–17m)
- 7th grade—38.2% to 47.7% (median: 41.6%)
(Tables 17i–17m)
- 8th grade—41.1% to 50.2% (median: 44.7%)
(Tables 17h–17m)

Ate Less Food to Lose Weight or to Keep from Gaining Weight

Across states, the percentage of students who had ever eaten less food, fewer calories, or foods low in fat to lose weight or to keep from gaining weight ranged as follows:

- 6th grade—40.0% to 44.5% (median: 40.8%)
(Tables 18b, 18e, 18g)
- 7th grade—38.7% to 45.0% (median: 43.9%)
(Tables 18a, 18b, 18d, 18e, 18g)
- 8th grade—42.8% to 47.8% (median: 44.5%)
(Tables 18a, 18b, 18d, 18e, 18g)

Across cities, the percentage of students who had ever eaten less food, fewer calories, or foods low in fat to lose weight or to keep from gaining weight ranged as follows:

- 6th grade—35.2% to 45.6% (median: 43.1%)
(Tables 18i–18m)
- 7th grade—34.9% to 46.9% (median: 36.9%)
(Tables 18i–18m)
- 8th grade—38.3% to 47.5% (median: 42.6%)
(Tables 18h–18m)

Exercised to Lose Weight or to Keep from Gaining Weight

Across states, the percentage of students who had ever exercised to lose weight or to keep from gaining weight ranged as follows:

- 6th grade—63.0% to 68.4% (median: 66.0%)
(Tables 18b, 18e, 18g)
- 7th grade—65.0% to 71.2% (median: 65.4%)
(Tables 18a, 18b, 18d, 18e, 18g)
- 8th grade—66.2% to 69.8% (median: 67.3%)
(Tables 18a, 18b, 18d, 18e, 18g)

Across cities, the percentage of students who had ever exercised to lose weight or to keep from gaining weight ranged as follows:

- 6th grade—51.4% to 61.1% (median: 59.5%)
(Tables 18i–18m)
- 7th grade—59.1% to 68.1% (median: 60.7%)
(Tables 18i–18m)
- 8th grade—58.5% to 72.1% (median: 64.6%)
(Tables 18h–18m)

Went Without Eating for 24 Hours or More to Lose Weight or to Keep from Gaining Weight

Across states, the percentage of students who had ever gone without eating for at least 24 hours to lose weight or to keep from gaining weight ranged as follows:

- 6th grade—13.4% to 15.5% (median: 15.4%)
(Tables 19b, 19e, 19g)
- 7th grade—17.1% to 25.0% (median: 19.6%)
(Tables 19a, 19b, 19d, 19e, 19g)
- 8th grade—18.1% to 26.4% (median: 20.4%)
(Tables 19a, 19b, 19d, 19e, 19g)

Across cities, the percentage of students who had ever gone without eating for at least 24 hours to lose weight or to keep from gaining weight ranged as follows:

- 6th grade—9.9% to 23.0% (median: 16.7%)
(Tables 19i–19m)
- 7th grade—10.8% to 19.2% (median: 18.4%)
(Tables 19i–19m)
- 8th grade—9.8% to 25.3% (median: 21.1%)
(Tables 19h–19m)

Took Diet Pills, Powders, or Liquids to Lose Weight or to Keep from Gaining Weight

Across states, the percentage of students who had ever taken diet pills, powders, or liquids without a doctor's advice to lose weight or to keep from gaining weight ranged as follows:

- 6th grade—3.5% to 6.5% (median: 4.4%)
(Tables 19b, 19e, 19g)
- 7th grade—5.2% to 8.1% (median: 6.5%)
(Tables 19a, 19b, 19d, 19e, 19g)
- 8th grade—8.3% to 14.4% (median: 10.5%)
(Tables 19a, 19b, 19d, 19e, 19g)

Across cities, the percentage of students who had ever taken diet pills, powders, or liquids without a doctor's advice to lose weight or to keep from gaining weight ranged as follows:

- 6th grade—3.1% to 4.8% (median: 4.1%)
(Tables 19i–19m)
- 7th grade—3.1% to 8.2% (median: 6.3%)
(Tables 19i–19m)
- 8th grade—3.9% to 10.5% (median: 7.9%)
(Tables 19h–19m)

Vomited or Took Laxatives to Lose Weight or to Keep from Gaining Weight

Across states, the percentage of students who had ever vomited or taken laxatives to lose weight or to keep from gaining weight ranged as follows:

- 6th grade—4.5% to 7.6% (median: 6.2%)
(Tables 19b, 19e, 19g)
- 7th grade—5.2% to 9.6% (median: 5.8%)
(Tables 19a, 19b, 19d, 19e, 19g)
- 8th grade—8.0% to 12.2% (median: 8.4%)
(Tables 19a, 19b, 19d, 19e, 19g)

Across cities, the percentage of students who had ever vomited or taken laxatives to lose weight or to keep from gaining weight ranged as follows:

- 6th grade—1.9% to 9.0% (median: 5.7%)
(Tables 19i–19m)
- 7th grade—2.9% to 8.2% (median: 5.0%)
(Tables 19i–19m)
- 8th grade—2.6% to 8.4% (median: 7.5%)
(Tables 19h–19m)

DISCUSSION

Too many middle school students engage in behaviors that place them at risk for death, disability, and social problems. Risk behaviors associated with unintentional injuries and violence, tobacco, alcohol and other drug use, HIV infection and other STDs, unintended pregnancy, physical inactivity, and overweight are problematic among middle school students.

Certain risk behaviors are more likely to occur among particular subpopulations of students defined by sex, race/ethnicity, and grade. However, this analysis could not isolate the effects of sex, race/ethnicity, or grade from those measures of socioeconomic status (SES) or culture on risk behaviors with substantial disparities. In a 1992 national study, after controlling for age, sex, race/ethnicity, and school enrollment status (in or out of school), adolescents 12–17 years of age were less likely to report selected risk behaviors (e.g., smoking, physical inactivity, eating too little fruit and vegetables, episodic heavy drinking) as the SES (education or family income) of the responsible adult increased.⁸ Additional research is needed to assess the effect of specific educational, socioeconomic, cultural, and racial/ethnic factors on the prevalence of health-risk behaviors among middle school students.

For the majority of risk behaviors, limited variability in their prevalence occurs from state to state and from city to city. However, across state surveys, a range of more than 25 percentage points was identified for the following categories:

6TH GRADE

- Lifetime cigarette use (minimum: 12.5%; maximum: 37.8%).
- Had been taught in school about AIDS or HIV infection (minimum: 34.2%; maximum: 62.4%).

- Were enrolled in PE class (minimum: 58.5%; maximum: 95.5%).

7TH GRADE

- Rarely or never wore a bicycle helmet (minimum: 44.9%; maximum: 93.1%).
- Rarely or never wore a helmet when using rollerblades or riding a skateboard (minimum: 60.1%; maximum: 87.9%).
- Lifetime cigarette use (minimum: 20.6%; maximum: 50.9%).
- Ever had sexual intercourse (minimum: 6.6%; maximum: 31.2%).
- Had been taught in school about AIDS or HIV infection (minimum: 51.6%; maximum: 83.4%).
- Watched television 3 or more hours per day (minimum: 30.2%; maximum: 55.6%).
- Were enrolled in PE class (minimum: 58.5%; maximum: 90.8%).
- Attended PE class daily (minimum: 15.7%; maximum: 77.5%).

8TH GRADE

- Rarely or never wore a bicycle helmet (minimum: 52.0%; maximum: 93.2%).
- Lifetime cigarette use (minimum: 32.9%; maximum: 58.6%).
- Ever had sexual intercourse (minimum: 14.0%; maximum: 41.1%).
- Watched television 3 or more hours per day (minimum: 30.1%; maximum: 64.2%).

- Were enrolled in PE class (minimum: 60.0%; maximum: 90.3%).
- Attended PE class daily (minimum: 14.1%; maximum: 77.5%).

Across local surveys, a range of more than 25 percentage points was identified for the following risk behaviors:

6TH GRADE

- Rarely or never wore a helmet when using rollerblades or riding a skateboard (minimum: 49.6%; maximum: 85.2%).
- Lifetime alcohol use (minimum: 17.4%; maximum: 44.1%).
- Had been taught in school about AIDS or HIV infection (minimum: 38.3%; maximum: 79.0%).
- Were enrolled in PE class (minimum: 32.9%; maximum: 97.5%).
- Attended PE class daily (minimum: 10.8%; maximum: 89.7%).

7TH GRADE

- Rarely or never wore a helmet when using rollerblades or riding a skateboard (minimum: 61.0%; maximum: 89.1%).
- Lifetime cigarette use (minimum: 19.1%; maximum: 45.8%).
- Ever had sexual intercourse (minimum: 9.0%; maximum: 34.8%).
- Were enrolled in PE class (minimum: 42.3%; maximum: 97.1%).
- Attended PE class daily (minimum: 8.7%; maximum: 91.2%).

8TH GRADE

- Rode with a driver who had been drinking alcohol (minimum: 22.6%; maximum: 58.2%).
- Lifetime cigarette use (minimum: 28.6%; maximum: 58.0%).
- Lifetime alcohol use (minimum: 36.7%; maximum: 68.3%).
- Ever had sexual intercourse (minimum: 11.1%; maximum: 40.5%).
- Were enrolled in PE class (minimum: 37.5%; maximum: 96.9%).
- Attended PE class daily (minimum: 11.7%; maximum: 88.0%).

These variations might occur, in part, because of differences in state and local laws and policies, enforcement practices, availability of effective interventions, prevailing behavioral norms, demographic characteristics of the population, and adult practices. Longitudinal research is needed to better understand the effect of these factors on the prevalence of risk behaviors.

The National Youth Tobacco Survey (NYTS) and Monitoring the Future (MTF) provide nationally representative data on select health-risk behaviors among middle school students.^{9,10} The NYTS middle school data provide prevalence estimates on tobacco usage among students in grades 6–8. Across the seven states with weighted 2003 YRBS middle school data, the median percentages of all students who reported current cigarette use (YRBS state median: 9.5%; NYTS: 10.1%), current smokeless tobacco use (YRBS state median: 4.7%; NYTS: 3.7%), current cigar use (YRBS state median: 5.9%; NYTS: 6.0%), and current tobacco use (YRBS state median: 13.3%; NYTS: 13.3%) were similar to the prevalence estimates from the 2002 NYTS middle school survey.

MTF middle school data provide prevalence estimates on tobacco, alcohol, and other drug use among students in grade 8. Across the seven states with weighted 2003 YRBS middle school data, the median percentages of eighth grade students who reported current cigarette use (YRBS state median: 12.5%; MTF: 10.2%), current smokeless tobacco use (YRBS state median: 5.0%; MTF: 4.1%), lifetime marijuana use (YRBS state median: 19.0%; MTF: 17.5%), and lifetime inhalant use (YRBS state median: 15.7%; MTF: 15.8%) were similar to the prevalence estimates from the 2003 MTF survey among eighth grade students. Across the seven YRBS middle school states, the median percentages of eighth grade students who reported lifetime cigarette use (YRBS state median: 37.8%; MTF: 28.4%), lifetime alcohol use (YRBS state median: 53.8%; MTF: 45.6%), and lifetime cocaine use (YRBS state median: 6.3%; MTF: 3.6%) were somewhat higher than the prevalence estimates from the MTF survey among eighth grade students.

LIMITATIONS

The findings in this report are subject to multiple limitations. First, these data apply only to young people who attend grades 6, 7, and 8 and, therefore, are not representative of all persons in this age group.¹¹ Second, the extent of underreporting or overreporting of behaviors cannot be determined because no psychometric studies have been conducted on the middle school YRBS questionnaire. However, one study did find that the high school YRBS questionnaire demonstrates good test-retest reliability among high school students.¹² Third, BMI is calculated on the basis of self-reported height and weight and, therefore, tends to underestimate the prevalence of overweight and risk for overweight.¹³

USES OF MIDDLE SCHOOL YRBS DATA

State and local agencies and nongovernmental organizations use middle school YRBS data to support curricula or program modifications and support legislation or new initiatives that promote health. For example, the District of Columbia (DC) Public Schools combined their 2003 middle and high school YRBS data and distributed the results to all health and physical education teachers in the district. Teachers were encouraged to integrate these data into their health instruction on HIV infection, STD, and teen pregnancy prevention. The DC Public Schools also distributed the combined YRBS data via bookmarks and book covers to students and included a list of resources and services students could access if they believed they were part of a particular risk group. The San Bernardino Unified School District used its middle school YRBS data to identify risk behaviors among students and to establish activities and community programs that addressed those risk behaviors. The Georgia Department of Human Resources, Division of Public Health, provided its middle school YRBS data to the American Heart Association Southeast Affiliate, which used the data in legislative efforts to restore physical education in schools. Also, many state and local agencies post their YRBS data on their Web sites to ensure use of their data by community agencies. Continued support for the YRBSS will help monitor and ensure the effectiveness of public health and school health programs for young people.

REFERENCES

1. Centers for Disease Control and Prevention. Web-based Injury Statistics Query and Reporting System (WISQARS). National Center for Injury Prevention and Control, Centers for Disease Control and Prevention (producer). 2004. [On-line] Available at <http://www.cdc.gov/ncipc/wisqars/default.htm>.
2. Ventura SJ, Abma JC, Mosher WD, Henshaw S. Estimated Pregnancy Rates for the United States, 1990–2000: An Update. *National Vital Statistics Report* 2004;52(23):1–10.
3. Centers for Disease Control and Prevention. Tracking the Hidden Epidemics, Trends in STDs in the United States, 2000. [On-line] Available at http://www.cdc.gov/nchstp/dstd/Stats_Trends/Trends2000.pdf. 2002.
4. Centers for Disease Control and Prevention. Methodology of the Youth Risk Behavior Surveillance System. *MMWR Recommendations and Reports* 2004;53(No. RR-12):1–13.
5. Kuczumski RJ, Ogden CL, Grummer-Strawn LM, et al. CDC growth charts: United States. Washington, DC: US Department of Health and Human Services, CDC, National Center for Health Statistics. Advance data from vital and health statistics; December 4, 2000 (revised). Publication no. 314.
6. SAS Institute, Inc. SAS,® version 8.02 [Software and documentation]. Cary, NY: SAS Institute, 2001.
7. Research Triangle Institute. SUDAAN®: software for the statistical analysis of correlated data, release 8.0 [Software and documentation]. Research Triangle Park, NC: Research Triangle Institute, 2001.
8. Lowry R, Kann L, Collins JL, Kolbe LJ. The effect of socioeconomic status on chronic disease risk behaviors among US adolescents. *Journal of American Medical Association* 1996;276:792–797.
9. Allen JA, Vallone D, Haviland ML, et al. Tobacco use among middle and high school students—United States, 2002. *MMWR* 2003;52(45):1096–1098.
10. Johnston LD, O'Malley PM, Bachman JG, Schulenberg JE. Monitoring the Future National Results on Adolescent Drug Use: Overview of Key Findings, 2003. Bethesda, MD: National Institute on Drug Abuse; 2004. (NIH Publication No. 04-5506):1–59.
11. Kaufman P, Alt MN, Chapman CD. Dropout rates in the United States: 2000 [Statistical analysis report]. Washington, DC: US Department of Education, Office of Educational Research and Improvement; 2001. Publication No. NCES 2002–114.
12. Brener ND, Kann L, McManus T, Kinchen SA, Sundberg EC, Ross JG. Reliability of the 1999 Youth Risk Behavior Survey questionnaire. *Journal of Adolescent Health* 2002;31:336–342.
13. Brener ND, McManus T, Galuska DA, Lowry R, Wechsler H. Reliability and validity of self-reported height and weight among high school students. *Journal of Adolescent Health* 2003;32:281–287.