

# 2009 New Jersey Student Health Survey

Conducted for:

New Jersey Department of Education
Division of Student Services | Office of Education Support Services











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### REPORT ON THE 2009 NEW JERSEY STUDENT HEALTH SURVEY OF HIGH SCHOOL STUDENTS

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### **BACKGROUND**

### Introduction

The 2009 New Jersey Student Health Survey was administered to a sample of public high school students during the spring of 2009 by the New Jersey Department of Education (NJDOE). The study was conducted under contract with the Bloustein Center for Survey Research (BCSR) at the Edward J. Bloustein School of Planning and Public Policy, Rutgers University. NJDOE has conducted a similar survey biannually since 1993.

From 1993 to 2001, the NJDOE administered Youth Risk Behavior Survey questions as promulgated by the Centers for Disease Control and Prevention (CDC) without additions or deletions. In 2003, NJDOE began adding to the Youth Risk Behavior Survey (YRBS) set of core questions. The additional questions included questions previously asked in surveys conducted by other state agencies or other national surveys. Questions included in the 2003 to 2009 surveys were chosen to better reflect the data needs of the NJDOE, New Jersey Department of Health and Senior Services and New Jersey Department of Law and Public Safety.

The YRBS is used nationally by CDC and provides information about the self-reported prevalence of behaviors that are highly related to the most important causes of preventable premature illness and death among youth and young adults:

- behaviors that result in unintentional injuries and violence;
- tobacco use;
- alcohol and other drug use;
- sexual behaviors that result in HIV infection, other sexually transmitted diseases, and unintended pregnancies;
- dietary behaviors; and
- physical activity.

Beginning in the year 2000, NJDOE began exploring means to expand the scope of the survey to address the

needs of several New Jersey state agencies and reduce duplication of effort in conducting student surveys in New Jersey schools. As a result, the 2003 questionnaire used for the New Jersey Student Health Survey contained the following: two sets of questions concerning attitudes toward substance use; and individual questions concerning primary language, unwanted sexual contact, testing for HIV or other sexually transmitted infection, diagnosis with asthma, and dental care. In order to keep up with the trends of adolescent behavior, questions are added or rotated on a regular basis. For example, questions were added in the 2005 survey to measure student attitudes toward the use of tobacco, alcohol, and marijuana. Questions were also added in 2007 regarding online communication and self-mutilation. The 2009 questionnaire included new questions on bullying, participation in clubs and volunteer service, and the school environment. For items included on the 2009 questionnaire, and response distributions, see Appendix A.

CDC produces a 2009 Comparison Fact Sheet which differentiates students in New Jersey from those in the nation on risk behavior. This Fact Sheet will be made available for download from the NJDOE website at <a href="http://www.state.nj.us/education/students/">http://www.state.nj.us/education/students/</a> yrbs/index. <a href="https://www.state.nj.us/education/students/">https://www.state.nj.us/education/students/</a> yrbs/index. <a href="https://www.state.nj.us/education/students/">https://www.state.nj.us/education/state.nj.us/education/state.nj.us/education/state.nj.us/education/state.nj.us/education/state.nj.us/education/state.nj.us/education/state.nj.us/education/state.nj.us/education/state.nj.us/education/state.nj.us/education/state.nj.us/education/state.nj.us/education/state.nj.us/education/state.nj.us/education/state.nj.us/education/state.nj.us/education/state.nj.us/education/state.nj.us/education/s

The NJDOE provides the findings of these surveys in both a detailed report and a summary brochure in order to encourage the broadest possible distribution of the information to adults who work directly with youth or for the benefit of youth. The following are examples of how the findings are used.

- Identify priority areas at the state and local levels for increased programming, changes in school policy and collaboration with community agencies.
- Monitor the impact of large-scale state or national initiatives to improve adolescent health.
- Establish benchmarks for reducing adolescent risks and increasing pro-social behaviors.
- Recognize program successes in influencing adolescent behaviors.

- Provide teachers with a basis for allocating instructional time in the health and physical education curriculum.
- Provide teens with peer norms rather than inflated perceptions of what their peers are doing.

The detailed report and summary brochure are distributed in printed form and made available for download from the NJDOE website at <a href="http://www.state.nj.us/education/students/yrbs/index.html">http://www.state.nj.us/education/students/yrbs/index.html</a>. These materials may be copied and distributed without permission.

Wording of questions and frequency distributions for all 95 items in the high school questionnaire for the 2009 New Jersey Student Health Survey are included in Appendix A of this report.

Data from the spring 2009 New Jersey Student Health Survey are highly comparable to that collected during the fall 2006 Youth Tobacco Survey conducted by the New Jersey Department of Health and Senior Services (NJDHSS), Comprehensive Tobacco Control Program. These surveys use a common core of questions concerning tobacco use. However, since the Youth Tobacco Survey is conducted during the fall, students are a little bit younger overall than during a spring survey administration. Summary reports are available on the NJDHSS web site at <a href="https://www.state.nj.us/health/as/ctcp/research.htm">www.state.nj.us/health/as/ctcp/research.htm</a>.

The New Jersey Department of Human Services (NJDHS), Division of Addiction Services also collects data concerning student use of alcohol, tobacco and other substances in the seventh through twelfth grades. While the questions are asked differently from those on the high school New Jersey Student Health Survey, the responses do provide a means to examine changes in student use with increasing age and grade. Reports can be found at <a href="http://www.state.nj.us/humanservices/das/das\_reports.htm">http://www.state.nj.us/humanservices/das/das\_reports.htm</a>.

Finally, from 1980 to 1998, the New Jersey Department of Law and Public Safety, Division of Criminal Justice conducted the triennial Survey of Drug and Alcohol Use Among New Jersey High School Students. Findings of the spring 1998 survey can be found at <a href="https://www.state.nj.us/lps/dcj/dahs1230.htm">www.state.nj.us/lps/dcj/dahs1230.htm</a>.

### **Funding Sources**

The 2009 New Jersey Student Health Survey was made possible through funding from the Centers for Disease Control and Prevention cooperative agreement 5U87DP001263, the United States Department of Education Elementary and Secondary Education Act, as amended (Title IV, Part A of the No Child Left Behind Act) Safe and Drug-Free Schools and Communities grant awarded to the New Jersey Department of Education; and the New Jersey Department of Health and Senior Services Comprehensive Tobacco Control Program.

### Survey Methods

The following section outlines major aspects of survey administration. More detailed information can be found in a technical report on the administration of the 2009 survey, entitled "2009 New Jersey Student Health Survey of High School Students, Technical Report: Survey Process, Observations and Recommendations" provided to the NJDOE by BCSR.

In 2009 as with all NJSHS studies since 2003, the administration of the survey was conducted under standards established by N.J.S.A. 18A:36-34. The law requires active parental consent for student participation which means that students could only participate if they returned a signed consent form from a parent/guardian.

The majority of all high school students (87%) returned a parental consent form, among whom 95% consented to participate in the survey and 5% did not consent. It should be noted that the parental consent requirement may act as a screening process whereby students not participating in the survey are the students who fail to bring home or return permission forms necessary for participation. At the same time, there is another group of students who are excluded because their parents have chosen not to consent to participation in this survey. While there is no empirical evidence to support the notion that these groups of students differ in any way from students who do return their consent form allowing survey participation, the active parental consent process creates an obvious screening criteria for inclusion in this study. However, both of these non-participating groups are small.

#### School Recruitment

BCSR staff members began contacting school district superintendents and principals in January, 2009 to obtain permission to conduct the survey at the school. Once a school agreed to participate, a list of all classes was provided to BCSR. Classes were then randomly selected in a manner which assured that all students were eligible for selection into the sample.

#### Parental Permission

Participating schools were provided with parent consent letters and survey fact sheets to send home with students. The survey procedure called for the consent letter and fact sheet to also be mailed to the home address of students in sampled classes. Some of the participating schools provided addresses to BCSR to complete this mailing. Most schools elected to do the mailing themselves using postage-paid envelopes which were stuffed with the survey fact sheet and parental consent form. In all cases, documented parental consent was required for a student to participate, consistent with New Jersey statute. Any student who did not want to participate on the day of administration was also excused.

### Field Administration

BCSR staff administered the survey in each randomly-selected classroom at sampled high schools during the spring semester of 2009, between January and June.

#### Sampling

During previous years, the NJDOE had a goal of obtaining the participation of 1,500 students by sampling a total of 2,000 students. Starting in 2007, and continuing in 2009, the NJDOE increased the number of students in all sampled schools who were selected for participation to about 2,700 (2007) and 2,300 students (2009). This equates to about 80 students per school, with a goal of obtaining 1,700 completed surveys. The increased sample size enables a more accurate analysis of the survey results using demographic groups such as race and ethnicity.

School Level – All of the state's 426 public regular, vocational, and alternative schools containing grades 9, 10, 11, or 12 were included in the sampling frame. Schools

serving primarily special education or adult populations were excluded. Schools were selected systematically with probability proportional to enrollment in grades 9 through 12 using a random start. Westat, Inc., a national firm hired by CDC to provide technical assistance to states administering the YRBS, drew the sample. Thirtynine high schools were selected.

Class Level – All classes in a required subject or, depending on the school's choice, all classes meeting during a particular period of the day were included in the sampling frame. Westat, Inc. generated random numbers that were used to select the sample classes. The random numbers were based on the total enrollment of the school and an assumed number of students in each class, for class selection. The number of classes selected ranged from one to four, with most schools having three classes selected. Student enrollment averaged about 24 students per class.

### Response Rate

Overall, 1,756 students in 34 public high schools completed the New Jersey Student Health Survey in the spring of 2009. The school response rate was 87% (34 of the 39 sampled schools participated) and the student response rate was 76% (1,756 of the 2,303 sampled students completed usable questionnaires), yielding an overall response rate of 66% (87%\*76%=66%). Eightseven percent (1,992 of 2,303) of sampled students returned a consent form, and of those, 95% (1,890 of 1,992) of parents consented for their child to participate.

### Weighting

In order to consider the survey findings representative of the New Jersey high school student population, the CDC has established a threshold of 60% combined participation rate as the minimum rate required to apply weights to data collected for the YRBS. This threshold was achieved in 2009 and therefore, the CDC weighting procedure outlined below was used to weight the 2009 high school data.

The CDC weighting procedure includes two components: (a) one adjustment that is associated with school/student probability of selection, and (b) one adjustment to insure demographic comparability. A weight has been associated with each questionnaire to reflect the likelihood of sampling each student and to reduce bias by

compensating for patterns of non-response. The sample is weighted by the probability of selection at the school and classroom level and by state student population parameters. The weight used for estimation is given by:

$$W = W1 * W2 * f1 * f2 * f3$$

- W1 = the inverse of the probability of selecting the school;
- W2 = the inverse of the probability of selecting the classroom within the school;
- f1 = a school level non-response adjustment factor calculated by school size category (small, medium, large). The factor was calculated in terms of school enrollment instead of number of schools;
- f2 = a student level non-response adjustment factor calculated by class;
- f3 = a post-stratification adjustment factor calculated by gender within grade and by race/ethnicity.

Once the final school and classroom probability weights are calculated, the sampled data is adjusted with these probability weights and the resulting sample demographics are compared to population parameters. Weighting on student demographic characteristics is necessary to bring the sample in line with the state's high school student population. The demographic variables used for weighting are based on grade/gender (8 categories based on grade level – 9th thru 12th; and gender – male and female) and race/ethnicity (4 categories based on White, Black, Hispanic and Asian).

The weighted percentages used in this report are a more accurate reflection of the total New Jersey high school population than if the results were to be used in their non-weighted form. The weighted results can be used to make inferences concerning the priority health-risk behaviors of all regular public school students in grades 9 through 12 in New Jersey and permit comparisons of findings across points in time and different locations.

### Profile of High School Students

The survey results are representative of all New Jersey high school students in grades 9-12. The weighted and unweighted demographic characteristics of the sample are shown in Table 1.

#### Gender

Overall, based on weighted demographic data, females and males are represented about equally in the survey (49.7% and 50.3%, respectively).

### Age

The students ranged in age from less than 13 years old to 18 years old or older. Overall, based on weighted demographic data, 33.7% of the students were 15 or younger, 51.2% were between 16 and 17 years old, and 15.0% were 18 or older.

#### Grade

Based on weighted demographic data, slightly more than one-fourth of the students were in 9<sup>th</sup> grade (26.4%), about one-fourth were in 10<sup>th</sup> grade (25.3%) or 11<sup>th</sup> grade (24.5%), and slightly less than one-fourth of the students were in 12<sup>th</sup> grade (23.6%).

### **Ethnicity**

Based on weighted demographic data, 58.2% were White, 16.5% were Black or African American, 17.3% were Hispanic or Latino (including Hispanics who also identified with a race or multiple races), 4.6% were Asians or Native Hawaiian/Pacific Islanders and 3.4% were Other (including American Indian/Alaskan Natives and non-Hispanic students who identified with multiple races).

Table 1: Profile of High School Students in the 2009 New Jersey Student Health Survey								
Sex	Sample (n)	Sample %	Weighted %	Grade	Sample (n)	Sample %	Weighted %	
Female	980	55.9%	49.7%	$9^{th}$	409	24.5%	26.4%	
Male	772	44.1%	50.3%	$10^{th}$	391	23.5%	25.3%	
Age				$11^{th}$	432	25.9%	24.5%	
13 Years Old or Younger	4	0.2%	0.3%	$12^{th}$	434	26.0%	23.6%	
14 Years Old	160	9.1%	10.1%	Ethnicity				
15 Years Old	394	22.4%	23.3%	Black	210	12.8%	16.5%	
16 Years Old	477	27.2%	25.4%	Hispanic/ Latino	260	15.8%	17.3%	
17 Years Old	488	27.8%	25.8%	White	1010	61.4%	58.2%	
18 Years Old or Older	233	13.3%	15.0%	All other races	166	10.0%	8.0%	

### Comparability of Findings

The report notes differences with age, racial/ethnic, and gender categories that appear to be of practical significance, given the size of the difference and sample size. Statistical tests of significance are not used to determine which differences are noted. Generally, however, differences noted usually achieve a chi-square of .05 or lower.

Throughout the report, differences between the current results and those of 1995, 2001, and 2005 – years where CDC permitted the weighting of data because the 60% response rate was reached – are shown as trend lines. In addition, it should be noted that while survey results from four different years are compared in this document, only the surveys in 2005 and 2009 required active parental consent for all students. Because active consent can eliminate students who would have otherwise participated under the passive consent process used in prior years, the survey design is not comparable. It is unclear whether the behavior of students participating under the current active consent recruitment format differs from those who would have participated under the prior consent guidelines.

### Additional Information

The interpretation of data, conclusions, and recommendations expressed in this report are those of the authors and may or may not represent the views of NJDOE or NJDHSS.

If you would like additional information about this report, or have comments or questions, contact the New Jersey Department of Education, Office of Educational Support Services, PO Box 500, Trenton, NJ 08625 or call the office at 609-292-5935. Comments may also be submitted through the NJDOE Parent's Circle web page at <a href="http://www.state.nj.us/njded/parents/">http://www.state.nj.us/njded/parents/</a>.

Copies of this report and of a summary brochure of findings can be downloaded from the NJDOE web site at <a href="http://www.state.nj.us/education/students/yrbs/">http://www.state.nj.us/education/students/yrbs/</a> index.html.

### CHAPTER 1: ALCOHOL AND OTHER DRUG USE

### Alcohol Use

These questions measure lifetime and current use of alcohol, age of initiation, episodic heavy drinking, access to alcohol, and drinking on school property. Alcohol is used by more young people than tobacco or illicit drugs<sup>1</sup>. Heavy alcohol drinking among youth is associated with risky sexual behaviors (including sexual initiation, multiple sex partners, reduced condom use, and pregnancy)2 and use of cigarettes3 4, marijuana, cocaine, and other illegal drugs.<sup>5</sup> Motor vehicle crashes are the leading cause of death among youth aged 15-19 years in the United States and alcohol use is associated with 9% of all motor vehicle crashes that result in injury and more than one-third of all motor vehicle crash fatalities<sup>6</sup>. Persons who begin drinking alcohol before the age of 15 years are five times as likely to report alcohol dependence or abuse within the past year as those who first drank alcohol at age 21 or older<sup>7</sup>. Limiting youth

access to alcohol has reduced underage alcohol use and alcohol-related problems8. However, youth continue to obtain alcohol from a variety of sources, reflecting the need for improved enforcement of underage drinking laws as well as greater public awareness of restrictions on drinking alcohol by underage youth. Nearly 100% of school districts in the United States prohibit alcohol use by students on school property9. Among high school students nationwide in 2007, 75% had had at least one drink of alcohol on at least 1 day during their life10, and 45% had at least one drink of alcohol on at least 1 day during the 30 days before the survey<sup>11</sup>. In addition, 26% of high school students had had 5 or more drinks of alcohol in a row on at least 1 day during the 30 days before the survey<sup>12</sup> 13. The percentage of high school students who had had at least one drink of alcohol on at least 1 day during their life decreased during 1991-2007 (82% - 75%).<sup>14</sup>

- Substance Abuse and Mental Health Services Administration. Results from the 2006 National Survey on Drug Use and Health: National Findings. (Office of Applied Studies, NSDUH Series H-32, DHHS Publication No. SMA 07-4293).
- 2 Dunn MS, Bartee RT, Perko MA. Self-reported alcohol use and sexual behaviors of adolescents. Psychological Reports 2003;92:339-348.
- 3 Everett SA, Oeltmann J, Wilson TW, Brener ND, Hill CV. Binge drinking among undergraduate college students in the United States: Implications for other substance use. Journal of American College Health 2001;50:33-38.
- 4 Johnson P, Boles SM, Vaughan R, Herbert D. The co-occurrence of smoking and binge drinking in adolescence. Addictive Behaviors 2000;25:779-783.
- 5 Everett SA, Oeltmann J, Wilson TW, Brener ND, Hill CV. Binge drinking among undergraduate college students in the United States: Implications for other substance use. Journal of American College Health 2001;50:33-38.
- 6 Web-based Injury Statistics Query and Reporting System (WISQARS) [database online]. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention; 2008. Accessed June 5, 2008.
- 7 Substance Abuse and Mental Health Services Admin-

istration. Alcohol dependence or abuse and age at first use. The NSDUH Report October 22, 2004. Available at: http://oas.samhsa.gov/youth.htm. Accessed June 5, 2008.

- 8 Klepp KI, Schmid LA, Murray DM. Effects of the increased minimum drinking age law on drinking and driving behavior among adolescents. Addiction Research 1996;4:237-244.
- 9 Everett Jones S, Fisher CJ, Greene BZ, Hertz MF, Pritzl J. Healthy and safe school environment, Part I: Results from the School Health Policies and Programs Study 2006. Journal of School Health 2007;77(8):522-543.
- Having at least one drink of alcohol on at least 1 day during their life is defined as "lifetime use,"
- Having at least one drink of alcohol on at least 1 day during the 30 days is defined as "current use."
- Five or more drinks of alcohol in a row on at least 1 day during the 30 days is defined as "binge drinking."
- 13 Eaton DK, Kann L, Kinchen S, et al. Youth Risk Behavior Surveillance -- United States, 2007. Morbidity and Mortality Weekly Report 2008:57(SS-4):1-131.
- 14 Eaton DK, Kann L, Kinchen S, et al. Youth Risk Behavior Surveillance -- United States, 2007. Morbidity and Mortality Weekly Report 2008:57(SS-4):1-131.

Figure 1.1: Lifetime Use of Alcohol

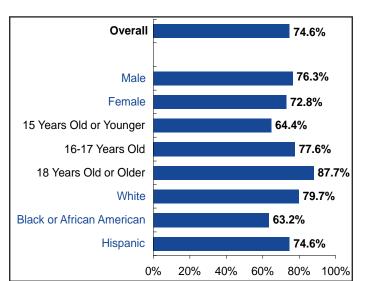
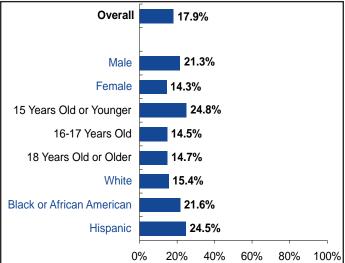


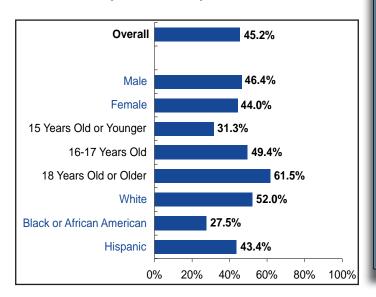
Figure 1.2: Lifetime Alcohol Use Before Age 13



- ▶ In 2009, overall, three-fourths (74.6%) of New Jersey high school students reported drinking alcohol in their lifetime (Figure 1.1).
- There was little variation in lifetime alcohol use by gender.
- Nearly nine in ten (87.7%) students 18 years of age or older reported lifetime use of alcohol, as compared to nearly eight in ten (77.6%) 16 to 17 year olds and more than six in ten (64.4%) of those 15 years of age or younger.
- White students (79.7%) were most likely to have used alcohol in their lifetime. Three-fourths (74.6%) of Hispanic students and fewer Black students (63.2%) reported lifetime alcohol use.

- Fewer than one in five students (17.9%) drank alcohol before they were 13 years old (Figure 1.2).
- ▶ While there was no substantial variation in the proportion of females and males who had ever drunk alcohol, males were more likely to have started drinking before age 13 (21.3% versus 14.3%).
- About one quarter (24.8%) of students age 15 or younger started drinking before the age of 13. Smaller percentages of students age 16-17 and 18 or older started drinking before age 13 (14.5% and 14.7%, respectively).
- ► Hispanic (24.5%) and Black (21.6%) students were more likely than White (15.4%) students to indicate they had their first drink before age 13.

Figure 1.3: One or More Drinks of Alcohol on at Least One Day, Last 30 Days



- Overall, less than half (45.2%) of the students drank alcohol on at least one day during the prior 30 days (Figure 1.3). Further, 4.6% of students had drunk alcohol on 10 or more of the last 30 days.
- Males and females were about equally likely to report having used alcohol at least once during the past 30 days (46.4% and 44.0%, respectively).
- Older students were more likely than younger students to have used alcohol in the past 30 days. Among students 18 years of age or older, six in ten (61.5%) reported drinking on at least one day during the previous month, as compared to substantially fewer 16 and 17 year olds (49.4%) and 15 year old or younger students (31.3%).
- ▶ White (52.0%) students were more likely than either Hispanic (43.4%) or Black (27.5%) students to report having used alcohol during the past 30 days.

### HEALTHY NEW JERSEY 2010 GOAL15

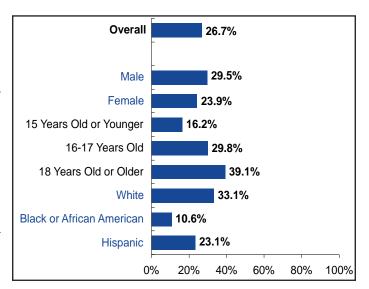
Decrease the percentage of public high school sophomores, junior and seniors who have used alcohol in the past 30 days to 37%.

#### 2009 NEW JERSEY SHS RESULTS

None of the grade levels met the 2010 goal. Sophomores (42.8%), juniors (51.1%), and seniors (59.6%) reported higher levels of recent alcohol use than the goal specifies.

15 All references to "Healthy New Jersey 2010 Goal" refer to Healthy New Jersey 2010: A Health Agenda for the First Decade of the New Millennium, Vol. I. New Jersey Department of Health and Senior Services, June 2001.

Figure 1.4: Five or More Drinks of Alcohol in a Row on At Least One Day, Last 30 Days



- More than one quarter (26.7%) of New Jersey high school students indicated having five or more drinks on a least one day in the last 30 days (Figure 1.4).
- Males were more likely than females to report this level of drinking (29.5% and 23.9%, respectively).
- Students 18 and over (39.1%) were most likely of all age groups to have had five or more drinks within a couple of hours on at least one day in the past 30 days, as compared to 29.8% of 16 and 17 year old students and 16.2% of students age 15 or younger.
- White students (33.1%) were more likely than Hispanic (23.1%) or Black (10.6%) students to have consumed five or more drinks on a least one day in the last 30 days.

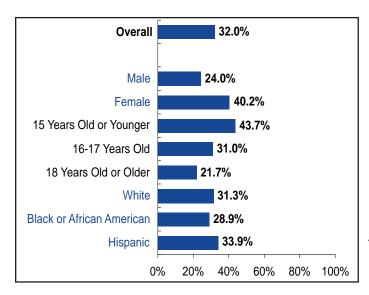
#### **HEALTHY NEW JERSEY 2010 GOAL**

The year 2010 goal for adults is to reduce the percentage of persons aged 18 years and older, who consumed five or more alcoholic drinks per occasion, one or more times during the past month to: 10.6% for ALL Adults; 11.0% for Whites; 5.0% for Blacks or African Americans; 8.0% for Hispanics.

#### 2009 NEW JERSEY SHS RESULTS

More than one quarter of high school students (26.7%) reported drinking five or more alcoholic drinks on an occasion in the past 30 days. Whites (33.1%), Blacks (10.6%), and Hispanics (23.1%) in high school all binge drink at rates above this goal.

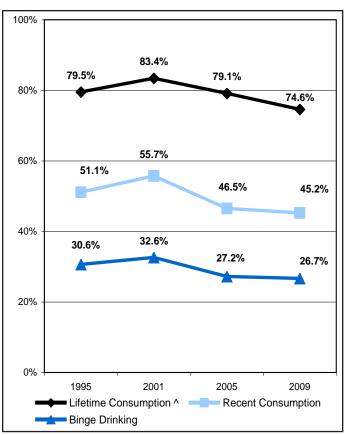
Figure 1.5: Received Alcohol from Someone, Among those Who Drank in the Last 30 Days



- Among students who drank alcohol in the last 30 days, 32.0% drank alcohol that someone gave to them, 30.2% paid someone to get alcohol for them, 10.8% purchased it at a store, restaurant or public event and 8.2% took alcohol from their family or a store. An additional 18.8% said they drank alcohol they obtained in some other way.
- Female students (40.2%) were far more likely to consume alcohol that someone gave them than male students (24.0%) (Figure 1.5).

- Students under sixteen years of age (43.7%) were more likely to report someone giving them alcohol than 16-17 year old students (31.0%) and far more likely to report it than students aged eighteen years or older (21.7%).
- ► Hispanic (33.9%) and White (31.3%) students were slightly more likely than Black students (28.9%) to report someone giving them alcohol.

Figure 1.6: Trends in Alcohol Use: 1995, 2001, 2005, and 2009



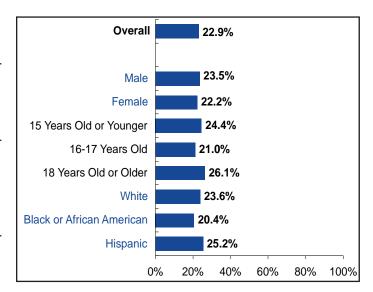
^ NOTE: Percentages for lifetime alcohol use have been recalculated from previous reports to correspond to CDC calculation of prevalence. In prior years, NJ determined lifetime alcohol use based on whether students indicated an age on the questionnaire for when they first used alcohol. Lifetime alcohol use has been adjusted based on whether students indicated they used alcohol in their life one or more times.

- Reporting of lifetime alcohol consumption declined in 2009 from levels in past surveys (Figure 1.6). This proportion reached its lowest point at 74.6%.
- Rates of recent drinking (45.2%) and binge drinking (26.7%) remained relatively stable from 2005 to 2009 and lower than the high rates in 2001.

### Drinking and Driving

These questions measure the frequency with which high school students drove a motor vehicle while under the influence of drugs or alcohol or rode as a passenger in a motor vehicle operated by someone who was under the influence of alcohol or drugs. Nationally, in 2004, 5% of 15- to 20-year-old drivers who were involved in crashes that resulted in injuries had been drinking alcohol.<sup>16</sup> In 2006, 25% of 15- to 20-year-old drivers involved in fatal crashes had blood alcohol concentration (BAC) levels of .08 or higher at the time of the crash.<sup>17</sup> Alcohol use is associated with 24% of fatalities among those less than 15 years old.<sup>18</sup> In 2007, 10% of high school students nationwide had driven a car or other vehicle one or more times when they had been drinking alcohol and 29% of high school students nationwide had ridden one or more times in a car or other vehicle driven by someone who had been drinking alcohol during the 30 days before the survey.<sup>19</sup> During 1991–2007, a significant linear decrease occurred in the percentage of students who rode with a driver who had been drinking alcohol (40%–29%).<sup>20</sup>

Figure 1.7: Rode in a Car with a Driver Who Had Been Drinking At Least Once, Last 30 Days



- During the past 30 days, slightly less than one quarter (22.9%) of the students rode at least once in a vehicle with someone who had been drinking (Figure 1.7). Further, 12.5% of students did so on two or more occasions during this period.
- There were no substantial differences by gender, age, or race/ethnicity of students in the percentage who reported driving with a driver who had been drinking.

<sup>16</sup> National Highway Traffic Safety Administration. Traffic Safety Facts 2004: A Compilation of motor vehicle crash data from the Fatality Analysis Reporting System and the General Estimates System. National Highway Traffic Safety Administration Web site. Available at: http://www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/TSFAnn/TSF2004.pdf.

Accessed June 6, 2008.

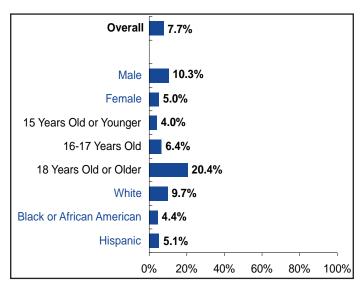
<sup>17</sup> National Highway Traffic Safety Administration. Traffic Safety: Teen Drivers. National Highway Traffic Safety Administration Web site. Link no longer available: Accessed June 5, 2008.

<sup>18</sup> Centers for Disease Control and Prevention. Child Passenger Deaths Involving Drinking Drivers, 1997-2002. Morbidity and Mortality Weekly Report 2004; 53(04):77-79.

<sup>19</sup> Eaton DK, Kann L, Kinchen S, et.al. Youth Risk Behavior Surveillance—United States, 2007. Morbidity and Mortality Weekly Report 2008;57(SS-4):1-131.

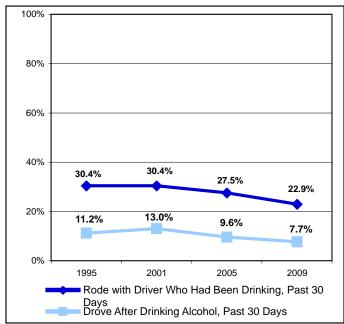
Eaton DK, Kann L, Kinchen S, et.al. Youth Risk Behavior Surveillance—United States, 2007. Morbidity and Mortality Weekly Report 2008;57(SS-4):1-131.

Figure 1.8: Drove a Vehicle after Drinking Alcohol, One or More Times, Last 30 Days



- Overall, 7.7% of New Jersey high school students reported they drove a car or other vehicle after they had been drinking alcohol during the past 30 days 3.8% drove a vehicle after using alcohol only once and another 3.9% did so more than once (Figure 1.8).
- Males were twice as likely as females to report they had driven after they had been drinking (10.3% and 5.0%, respectively).
- ▶ Students 18 or older (20.4%) were more likely than students 16 and 17 (6.4%) or 15 years of age and younger (4.0%) to have operated a vehicle after drinking.
- ▶ White (9.7%) students were more likely than Hispanic (5.1%) or Black (4.4%) students to report having driven after drinking alcohol at least once during the past 30 days.

Figure 1.9: Trends in Drinking and Driving: 1995, 2001, 2005, and 2009



- The percentage of students who rode with a driver who had been drinking during the previous 30 days reached its lowest point in 2009 (22.9%) when compared to previous survey years (27.5%-30.4%) (Figure 1.9).
- Fewer students also indicated incidents of drinking and driving than in previous survey years. In 2009, 7.7% of students reported drinking and driving within the previous 30 days compared to 9.6%-13.0% of students in other years.

#### HEALTHY PEOPLE 2010 NATIONAL GOAL<sup>21</sup>

Reduce the proportion of adolescents who report that they rode, during the previous 30 days, with a driver who had been drinking alcohol to 30%.

#### **2009 NEW JERSEY SHS RESULTS**

New Jersey met the 2010 goal with less than 30% of New Jersey high school students (22.9%) reporting that they had been a passenger in a car with a drinking driver during the previous month.

21 All references to "Healthy People 2010 National Goal" refer to - U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With understanding and improving health and objectives for improving health. Washington D.C., Government Printing Office, 2004.

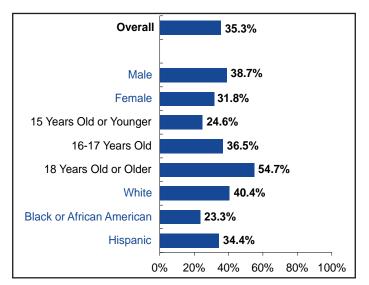
### Marijuana Use

These questions measure lifetime and current use of marijuanaandcocaine, and lifetime use of inhalants, heroin, methamphetamines, ecstasy, steroids, and injected drugs. Among youth, illicit drug use is associated with heavy alcohol and tobacco use,<sup>22</sup> violence and delinquency,<sup>232425</sup> and suicide<sup>26</sup>. All school districts prohibit illegal drug possession or use by students on school property<sup>27</sup>. Among high school students nationwide in 2007, 38% had used marijuana, 7% had used any form of cocaine, 4% had taken steroid pills or shots without a doctor's prescription, 8% had used hallucinogenic drugs, 2% had used heroin, 4% had used methamphetamines, and 6% had used ecstasy one or more times during their life.<sup>28</sup> In addition, 13% of high school students had sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high and 2% had used a needle to inject any illegal drug into their body one or more times

- Substance Abuse and Mental Health Services Administration. Results from the 2006 National Survey on Drug Use and Health: National Findings. (Office of Applied Studies, NSDUH Series H-32, DHHS Publication No. SMA 07-4293). Rockville, MD, 2007.
- Substance Abuse and Mental Health Services Administration. Youth violence and illicit drug use. The NS-DUH Report 2006;5:1-4. Available at: http://oas.samhsa.gov/youth.htm. Accessed June 5, 2008.
- 24 Substance Abuse and Mental Health Services Administration. Marijuana use and delinquent behaviors among youths. The NSDUH Report January 9, 2004. Available at: http://oas.samhsa.gov/youth.htm. Accessed June 5, 2008.
- Substance Abuse and Mental Health Services Administration. Inhalant use and delinquent behaviors among young adolescents. The NSDUH Report March 17, 2005. Available at: http://oas.samhsa.gov/youth.htm. Accessed June 5, 2008.
- 26 Substance Abuse and Mental Health Services Administration. Substance use and the risk of suicide among youths. The NHSDA Report July 12, 2002. Available at: http://oas.samhsa.gov/youth.htm. Accessed June 5, 2008.
- Everett Jones S, Fisher CJ, Greene BZ, Hertz MF, Pritzl J. Healthy and safe school environment, Part I: Results from the School Health Policies and Programs Study 2006. Journal of School Health 2007;77(8):522-543.
- 28 Eaton DK, Kann L, Kinchen S, et al. Youth Risk Behavior Surveillance -- United States, 2007. Morbidity and Mortality Weekly Report 2008:57(SS-4):1-131.

during their life. The percentage of high school students who had used marijuana one or more times during their life increased during 1991–1999 (31%–47%) and then decreased during 1999–2007 (47%–38%)<sup>29</sup>.

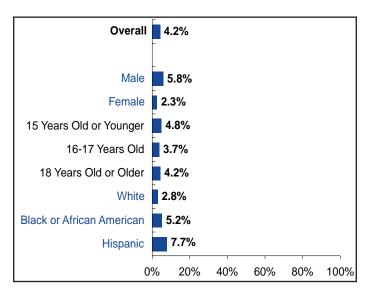
Figure 1.10: Lifetime Use of Marijuana



- Overall, more than one-third (35.3%) of all students reported having tried marijuana in their lifetime (Figure 1.10). Further, 15.1% of students had done so on 20 or more occasions in their life.
- Males were more likely than females to report lifetime marijuana use (38.7% and 31.8%).
- One-fourth (24.6%) of students 15 years of age or younger reported having tried marijuana, as compared to more than one-third (36.5%) of 16-17 year olds and over half (54.7%) of those 18 years of age or older.
- White (40.4%) students were the most likely and Black (23.3%) students the least likely to report lifetime marijuana use.

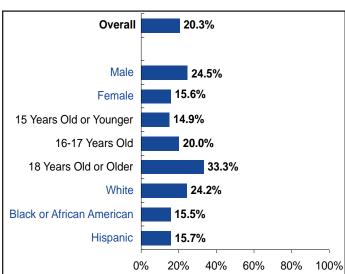
<sup>29</sup> Eaton DK, Kann L, Kinchen S, et al. Youth Risk Behavior Surveillance -- United States, 2007. Morbidity and Mortality Weekly Report 2008:57(SS-4):1-131.

Figure 1.11: Lifetime Marijuana Use Before 13



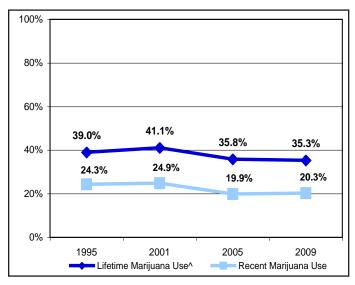
- Overall, 4.2% of students tried marijuana before the age of 13 (Figure 1.11).
- A slightly greater percentage of males than females reported first use of marijuana before age 13 (5.8% and 2.3%, respectively).
- Marijuana use before age 13 did not vary by age group.
- ► Hispanic (7.7%) students were the most likely and White (2.8%) students the least likely to report having tried marijuana before age 13.

Figure 1.12: Used Marijuana One or More Times, Last 30 Days



- Overall, about one in five students (20.3%) reported marijuana use over the last 30 days (Figure 1.12).
   Further, 6.6% of students had used marijuana 10 or more times during this period.
- Males were more likely than females to report marijuana use over the last 30 days (24.5% and 15.6%, respectively).
- Older students were more likely than younger students to have used marijuana during the past month. About one-third (33.3%) of students 18 years old or older and one in five (20.0%) students 16 to 17 years old used marijuana during the previous month, as compared to 14.9% of those 15 years of age or younger.
- ▶ White students (24.4%) were more likely than Hispanic (15.7%) or Black (15.5%) students to have used marijuana in the past month.

Figure 1.13: Trends in Marijuana Use: 1995, 2001, Cocaine Use 2005, and 2009



^ NOTE: Percentages for lifetime marijuana use have been recalculated from previous reports to correspond to CDC calculation of prevalence. In prior years, NJ determined lifetime marijuana use based on whether students indicated an age on the questionnaire for when they first used marijuana. Lifetime marijuana use has been adjusted based on whether students indicated they used marijuana in their life one or more times.

- The percentage of New Jersey high school students who reported both lifetime and recent marijuana use was lower in 2005 and 2009 than in previous years (Figure 1.13). In 2009, 35.3% of students reported lifetime use of marijuana, which was comparable to 2005 results (35.8%). This figure was highest in 2001 (41.1%).
- About one in five students (20.3%) in 2009 reported recent marijuana use, comparable to the 2005 figure of 19.9%.

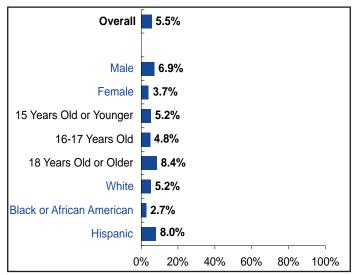
#### **HEALTHY NEW JERSEY 2010 GOAL**

A goal of Healthy New Jersey 2010 is to decrease the percentage of public high school sophomores, junior and seniors who have used marijuana in the past 30 days to 11%.

#### **2009 NEW JERSEY SHS RESULTS**

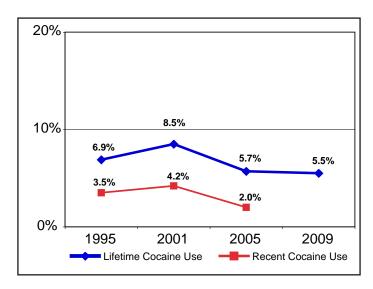
Sophomores (15.4%), juniors (22.1%) and seniors (31.2%) all used marijuana during the past 30 days at rates higher than the specified goal.

Figure 1.14: Lifetime Use of Any Cocaine or Crack



- Overall, 5.5% of students reported lifetime use of any form or cocaine or crack. (Figure 1.14).
- There were no notable differences by gender or age in students' reported use of cocaine or crack.
- Hispanic (8.0%) students were the most likely and Black (2.7%) students least likely to report lifetime use of any form of cocaine or crack.

Figure 1.15: Trends in Cocaine Use: 1995, 2001, 2005, and 2009

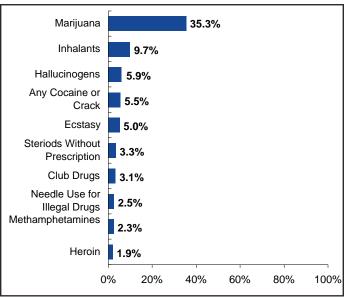


- The percentage of students reporting lifetime cocaine use remained at 5.5%, similar to 2005 (5.7%), and lower than the high of 8.5% in 2001 (Figure 1.15).
- In previous survey years students were also asked about past 30 day use of cocaine. The percentage of students who reported recent cocaine use was consistent across the years in which it was asked from a high of 4.2% in 2001 to a low of 2.0% in 2005. Recent cocaine use was not asked in the 2009 survey.

### Other Drug Use

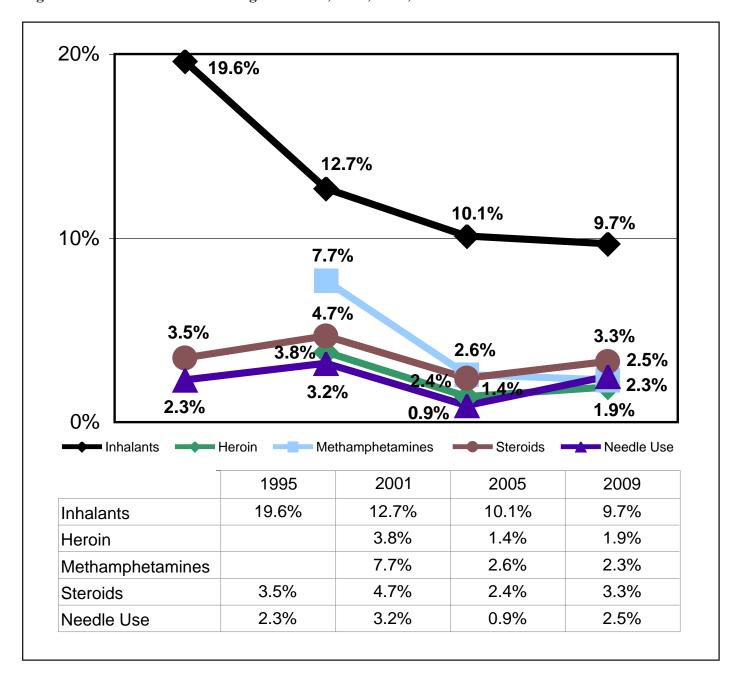
Ten questions on the New Jersey Student Health Survey addressed other lifetime drug use of inhalants, heroin, methamphetamines, ecstasy, other club drugs, hallucinogenic drugs (LSD, acid, PCP, angel dust, mescaline, or mushrooms), steroid pills or shots without a doctor's prescription, or needle used to inject any illicit drug.

Figure 1.16: Lifetime Use of Illicit Drugs (Used One or More Times)



- Among all illicit drugs used by students during their lifetime, marijuana was the most frequently used (35.3%) (Figure 1.16).
- ► Roughly one in ten (9.7%) students reported use of inhalants in their lifetimes.
- ▶ 5.9% of students reported lifetime use of hallucinogens, about the same percentage as reported lifetime use of any form or cocaine or crack (5.5%) or Ecstasy (5.0%). Other drug use was reported by 3% or less of New Jersey high school students.

Figure 1.17: Trends in Other Drug Use: 1995, 2001, 2005, and 2009



- Overall, lifetime use of these other illicit drugs has declined since the higher levels that were first measured in 1995 (inhalants) and 2001 (all other drugs) (Figure 1.17).
- The use of inhalants was reported by one in 10 students and virtually remained the same between 2005 and 2009 (10.1% and 9.7%, respectively).
- ▶ Between 2005 and 2009 the use of the other three drugs also remained essentially unchanged: heroin (1.4% and 1.9%, respectively); methamphetamine<sup>30</sup>
- Results for 1995 were excluded due to differences in question wording. In 1995, a single question asked about

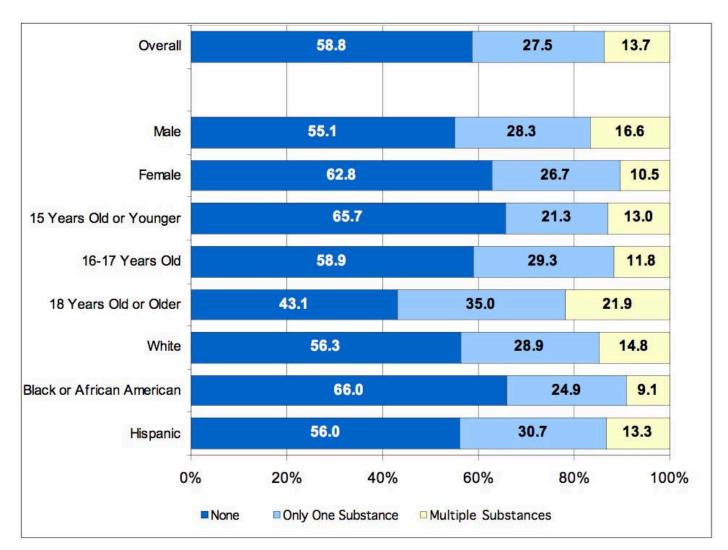
- (2.6% and 2.3%, respectively); and steroid pills or shots without a doctor's prescription (2.4% and 3.3%, respectively).
- The proportion of students who reported needle use for an illegal drug was at a low of 0.9% in 2005 but increased in 2009 to 2.5%. However, needle use remains lower than the 2005 level of 3.2%.

the use of "LSD, PCP, ecstasy, mushrooms, speed, ice or heroin"; while in 2001-2007, separate questions were asked about the use of "heroin, also called smack, junk or China White" and "methamphetamines, also called speed, crystal, crank or ice".

Figure 1.18 combines all 10 lifetime substance use questions regarding marijuana, crack/cocaine, heroin, methamphetamines, hallucinogens, ecstasy, other club drugs, steroids, inhalants and injection drug use.

Students are then divided into three groups: those who have not used any drugs, those who have used only one drug, and those who have used multiple drugs.

Figure 1.18: Lifetime Use of One or More Substance



- The majority of New Jersey high school students (58.8%) have not used any drugs in their lifetime.
- Slightly more than one-fourth (27.5%) have used only one drug and another 13.7% have used more than one drug.
- Females were more likely than males to have not used any drugs (62.8% vs. 55.1%) and males were more likely than females to have used multiple drugs (16.6% vs. 10.5%).
- Younger students were less likely to have used substances in their lifetime than older students.
- Two-thirds (65.7%) of students 15 years of age or younger have never used drugs. This figure dropped to 58.9% among 16-17 year olds and 43.1% among students 18 years of age or older. Students 18 or older were more likely than 16-17 year old students or those 15 and younger to have used multiple substances (21.9% vs. 11.8% and 13.0%, respectively).
- ▶ Black students (66.0%) were more likely than White (56.3%) or Hispanic (56.0%) students to report they had not used any substances. White students (14.8%) were most likely and Black students (9.1%) least likely to indicate they used multiple substances.

### CHAPTER 2: USE OF CIGARETTES AND TOBACCO

### Cigarette Use

hese questions measure lifetime and current smoking . patterns, age of initiation, access to cigarettes, smoking onschoolproperty, and attempts to quits moking. Cigarette smoking is the leading cause of preventable death in the United States<sup>31</sup> and accounts for approximately 440,000 Cigarette smoking increases risk deaths each year<sup>32</sup>. of heart disease; chronic obstructive pulmonary disease; acute respiratory illness; stroke; and cancers of the lung, larynx, oral cavity, pharynx, pancreas, and cervix.<sup>33</sup> In addition, as compared to non-smokers, cigarette smokers are more likely to drink alcohol, use marijuana and cocaine, engage in physical fighting, carry a weapon, and attempt suicide. 34 35 If current patterns of smoking persist, an estimated 6.4 million U.S. persons who are under the age of 18 in 2000 could die prematurely from smokingrelated illnesses<sup>36</sup>. Approximately 64% of schools had

- adopted policies that 1) prohibited cigarette smoking and smokeless tobacco use among students, faculty and staff and school visitors in school buildings; outside on school grounds; on school buses or other vehicles used to transport students; and at off-campus, school-sponsored events; and 2) prohibited cigar or pipe smoking by students, faculty and staff, and school visitors.<sup>37</sup> Among high school students nationwide in 2007, 50% had ever tried cigarette smoking, 20% had smoked cigarettes on at least 1 day during the 30 days before the survey, and 6% had smoked cigarettes on school property on at least 1 day during the 30 days before the survey. The percentage of high school students who had ever tried cigarette smoking did not change significantly during 1991–1999 (70%–70%) and then decreased during 1999-2007 (70%-50%).38 The percentage of high school students who had smoked cigarettes on at least 1 day during the 30 days before the survey increased significantly during 1991-1997 (28%-36%) and then decreased during 1997-2007 (36%-20%).39
- U.S. Department of Health and Human Services. The Health Consequences of Smoking: A Report of the Surgeon General. U.S. Department of Health and Human Services; Centers for Disease Control and Prevention; National Center for Chronic Disease Prevention and Health Promotion; Office on Smoking and Health, 2004.
- Centers for Disease Control and Prevention. Annual smoking-attributable mortality, years of potential life lost, and productivity losses—United States, 1997–2001. Morbidity and Mortality Weekly Report 2002;54:625–8.
- 33 U.S. Department of Health and Human Services. The Health Consequences of Smoking: A Report of the Surgeon General. U.S. Department of Health and Human Services; Centers for Disease Control and Prevention; National Center for Chronic Disease Prevention and Health Promotion; Office on Smoking and Health, 2004.
- Everett SA, Malarcher AM, Sharp DJ, Husten CG, Giovino GA. Relationship between cigarette, smokeless tobacco, and cigar use, and other health risk behaviors among U.S. high school students. Journal of School Health 2000;70:234-240.
- Substance Abuse and Mental Health Services Administration. Results from the 2004 National Survey on Drug Use and Health: National Findings. (Office of Applied Studies, NSDUH Series H-28, DHHS Publication No. SMA 05-4062). Rockville, MD, 2005.
- 36 Hahn EJ, Rayens MK, Chaloupka FJ, Okoli CTC, Yang J. Projected smoking-related deaths among U.S.

youth: A 2000 update. ImpacTeen. Research Paper Series 2002;22.

- Kann L, Brener ND, Wechsler H. Overview and Summary: School Health Policies and Programs Study 2006. Journal of School Health 2007;77(8):385-397.
- 38 Eaton DK, Kann L, Kinchen S, et al. Youth Risk Behavior Surveillance -- United States, 2007. Morbidity and Mortality Weekly Report 2008:57(SS-4):1-131.
- Eaton DK, Kann L, Kinchen S, et al. Youth Risk Behavior Surveillance -- United States, 2007. Morbidity and Mortality Weekly Report 2008:57(SS-4):1-131.

Figure 2.1: Smoked at Least One Whole Cigarette in Lifetime

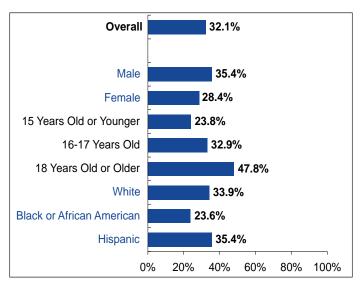
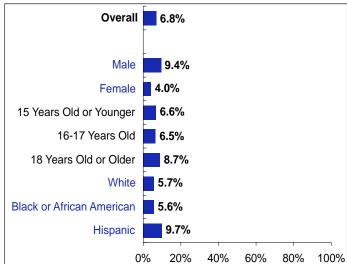


Figure 2.2: Smoked at Least One Whole Cigarette before Age 13



- ▶ More than three in ten (32.1%) New Jersey high school students had smoked at least one whole cigarette in their lifetime (Figure 2.1).
- Males (35.4%) were more likely than females (28.4%) to have smoked a cigarette in their lifetime.
- The likelihood of cigarette use increased with age. Less than one-fourth (23.8%) of students 15 years of age or younger had smoked at least one whole cigarette in their life compared to one-third (32.9%) of 16-17 year olds and nearly half (47.8%) of those 18 years of age or older.
- ► Cigarette smoking varied by race/ethnicity with Hispanic (35.4%) and White (33.9%) students more likely to have smoked a whole cigarette in their lifetime than Black (23.6%) students.

- Less than one in 10 (6.8%) New Jersey high school students had first tried cigarette smoking before age 13 (Figure 2.2).
- Males were more likely than females to report that they had first tried cigarette smoking before age 13 (9.4% and 4.0%, respectively).
- The proportion of students who had tried smoking before age 13 did not vary by age or race/ethnicity.

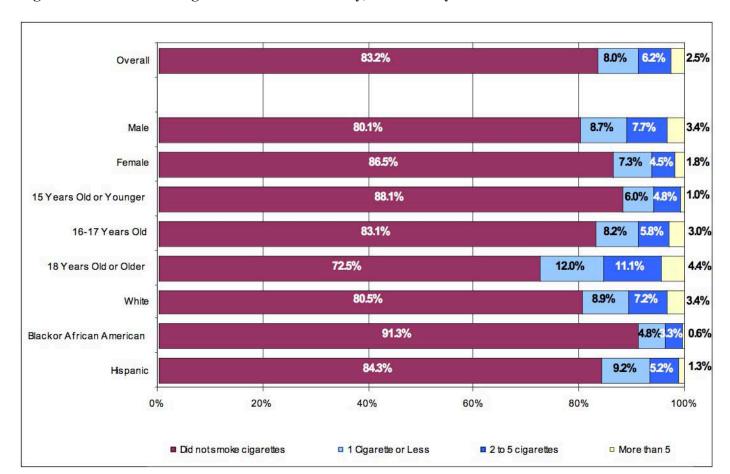
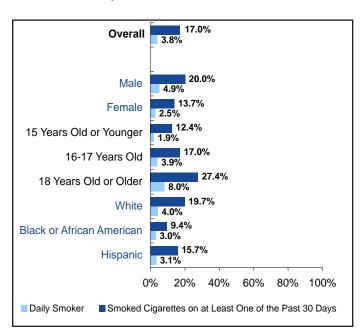


Figure 2.3: Number of Cigarettes Smoked Per Day, Last 30 Days

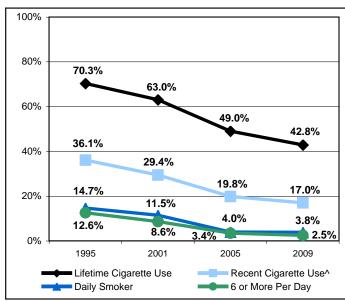
- Overall, more than four-fifths of students (83.2%) had not smoked cigarettes in the last 30 days (Figure 2.3). Less than one in 10 (8.0%) smoked one cigarette or less per day during the previous month while a similar percentage (6.2%) had smoked two to five cigarettes. Far fewer students (2.5%) smoked more than five cigarettes a day during the previous month.
- More females than males reported not smoking during the last 30 days (86.5% and 80.1%, respectively).
- Nearly nine of 10 (88.1%) students 15 years of age or younger reported not smoking during the previous 30 days, as compared to 72.5% of those 18 years of age or older.
- ▶ Black (91.3%) students were more likely than Hispanic (84.3%) or White (80.5%) students to have not smoked during the past 30 days.

Figure 2.4: Smoked Cigarettes on One or More of the Past 30 Days



- Overall, 17.0% of New Jersey high school students reported smoking on at least one of the last 30 days and 3.8% of students were daily smokers (Figure 2.4). The vast majority of students (83.0%) had not smoked in the last 30 days.
- More males (20.0%) than females (13.7%) smoked on at least one of the previous 30 days but males and females were about equally likely to be daily smokers during that period.
- The percentage of students who smoked on one or more of the past 30 days increased with age. The percentage of those 15 years of age or younger who reported recent smoking was 12.4%, as compared to 17.0% of 16-17 year olds and 27.4% of those 18 or older. A greater proportion of students aged 18 years old or older smoked daily (8.0%) as compared to 3.9% of 16-17 year olds and 1.9% of those 15 years of age or younger.
- About one in ten (9.4%) Black students had smoked on at least one day in the past 30 days, compared to 15.7% of Hispanic and 19.7% of White students.

Figure 2.5: Trends in Cigarette Use: 1995, 2001, 2005 and 2009



^ NOTE: Percentages for recent cigarette use have been recalculated from previous reports to correspond to CDC calculation of prevalence. In prior years, NJ determined recent cigarette use based on whether students indicated a number on the questionnaire for the number of cigarettes they smoked per day in the past 30 days. Recent cigarette use has been adjusted based on how many days students indicated they smoked in the past 30 days.

- Reports of lifetime, recent, and daily cigarette use among New Jersey high school students all reached new lows in 2009 from levels reported in previous years (Figure 2.5). In 2009, 42.8% of students had tried cigarette smoking, even one or two puffs, as compared to 49.0% in 2005, 63.0% in 2001, and 70.3% in 1995.
- The number of students reporting cigarette use during the previous month reached a low of 17.0% in 2009. This figure was 19.8% in 2005, 29.4% in 2001, and 36.1% in 1995.
- Students reported being daily smokers at about the same rate in 2009 (3.8%) as in 2005 (4.0%).
- The number of students smoking six or more cigarettes each day they smoked during the previous month also reached a low of 2.5% in 2009, from 3.4% in 2005, 8.6% in 2001 and 12.6% in 1995.

#### **HEALTHY NEW JERSEY 2010 GOAL**

Decrease the percentage of public high school students who say they are currently smoking to: 26% of ALL high school students; 26% for White non-Hispanic high school students; 15% for Black non-Hispanic high school students; and 26% for Hispanic high school students.

### 2009 NEW JERSEY SHS RESULTS

High school students overall (12.3%), White students (14.9%), Black students (6.1%) and Hispanic students (10.0%) all smoked at rates below the objective set for their racial/ethnic group.

### HEALTHY PEOPLE 2010 NATIONAL GOAL

Reduce use of cigarettes in the past month by adolescents to 16%.

### 2009 NEW JERSEY SHS RESULTS

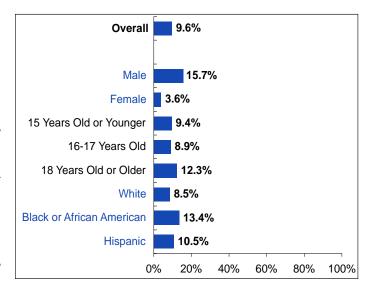
Recent cigarette use among New Jersey High School students was below the target set for 2010 (12.3%).

### CHAPTER 3: USE OF WEAPONS AND VIOLENCE

### Weapons

These questions measure violence-related behaviors and school-related violent behaviors. Homicide is the second leading cause of death among all youth aged 15-19 years (9.6 per 100,000) and is the leading cause of death among black youth aged 15-19 years (33.8 per Approximately 84% of homicide victims 100,000).40in the United States in 2004 were killed with a weapon, such as a gun, knife, or club. 41 In 2005, 84% of homicide victims 15 to 19 years old were killed with firearms. 42 Firearms intensify violence and increase the likelihood of fatality in a conflict.<sup>43</sup> Of all violent deaths that occurred on school property between 1994 and 2006, 65% involved firearms.44 Among high school students nationwide in 2007, 18% had carried a weapon, 5% had carried a gun, and 6% had carried a weapon on school property on at least 1 day during the 30 days before the survey.<sup>45</sup> The percentage of students who carried a weapon decreased during 1991-1999 (26%-17%) and then did not change significantly during 1999-2007 (17%-18%).46

Figure 3.1: Carrying Any Weapon, One or More Days, Last 30 Days



- One in 10 (9.6%) New Jersey high school students reported carrying a weapon such as a gun, knife or club during the past 30 days (Figure 3.1); and 3.8% of all students carried one on six or more days of the last 30.
- More than four times as many males (15.7%) as females (3.6%) reported carrying a weapon at least once during the previous month.
- There was no notable difference by age group in the percent of students who reported carrying a weapon during the previous month (8.9%-12.3%).
- Black (13.4%) students had the highest frequency of weapon carrying during the previous month and White (8.5%) students had the lowest frequency.

Web-based Injury Statistics Query and Reporting System (WISQARS) [database online]. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention; 2008. Accessed May 7, 2008.

Department of Justice. Crime in the United States, 2004. Uniform Crime Reports. Federal Bureau of Investigation Web site. Available at: http://www.fbi.gov/ucr/cius\_04/. Accessed June 6, 2008.

Web-based Injury Statistics Query and Reporting System (WISQARS) [database online]. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention; 2008. Accessed May 7, 2008.

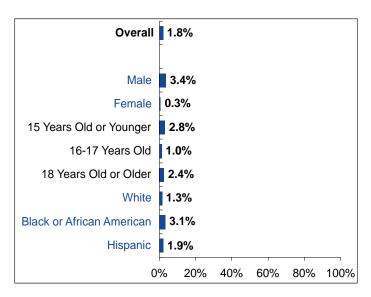
Cook PJ, Ludwig J. The costs of gun violence against children. Future of Children 2002; 12(2):87-99.

Centers for Disease Control and Prevention. School-Associated Homicides- United States 1992-2006. Morbidity and Mortality Weekly Report 2008;57(02):33-36.

Eaton DK, Kann L, Kinchen S, et.al. Youth Risk Behavior Surveillance—United States, 2007. Morbidity and Mortality Weekly Report 2008;57(SS-4):1-131.

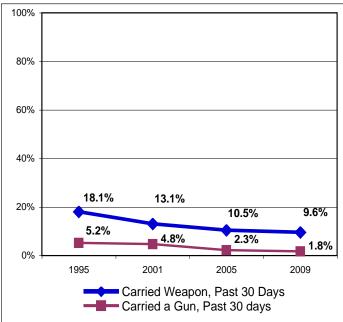
<sup>46</sup> Eaton DK, Kann L, Kinchen S, et.al. Youth Risk Behavior Surveillance—United States, 2007. Morbidity and Mortality Weekly Report 2008;57(SS-4):1-131.

Figure 3.2: Carried a Gun, One or More Days, Last 30 Days



- Overall, 1.8% of New Jersey high school students reported that they had carried a gun on one or more of the previous 30 days (Figure 3.2).
- Males were more likely than females to report carrying a gun in the past month (3.4% vs. 0.3%).
- There were no notable differences in gun carrying by age or by race/ethnicity.

Figure 3.3: Trends in Weapon Carrying: 1995, 2001, 2005, and 2009



- The percentage of New Jersey high school students who had carried a weapon during the past 30 days decreased across survey years from a high of 18.1% in 1995 to a low of 9.6% in 2009 (Figure 3.3).
- ► The percentage of students who reported carrying a gun in the past 30 days also reached a low of 1.8%, continuing its decline from a high of 5.2% in 1995.

### Physical Fights

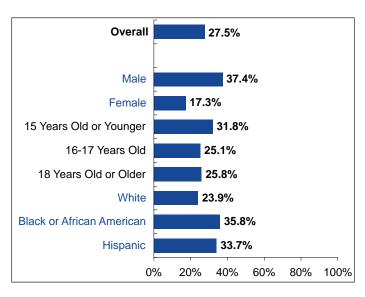
These questions measure the frequency and severity of physical fights, school-related fights, and abusive behavior. Physical fighting is a marker for other problem behaviors<sup>47</sup> and is associated with serious injury-related health outcomes<sup>48</sup> <sup>49</sup>. Among high school students nationwide in 2007, 36% had been in a physical fight and 12% had been in a physical fight on school property one or more times during the 12 months before the survey.<sup>50</sup> The percentage of high school students who were in a physical fight decreased during 1991–2003 (42%–33%) and then increased during 2003-2007 (33%-36%).51 Intimate partner abuse victimization is associated with participation in other high risk behaviors.<sup>52</sup> In 2007, 10% of high school students nationwide had been hit, slapped, or physically hurt on purpose by their boyfriend or girlfriend during the 12 months before the survey.<sup>53</sup> Forced sexual intercourse is associated with negative

- Sosin DM, Koepsell TD, Rivara FP, Mercy JA. Fighting as a marker for multiple problem behaviors in adolescents. Journal of Adolescent Health 1995;16:209-215.
- 48 Borowsky IW, Ireland M. Predictors of future fight-related injury among adolescents.Pediatrics 2004;113:530-536.
- 49 Pickett W, Craig W, Harel Y, et al. Cross-national study of fighting and weapon carrying as determinants of adolescent injury. Pediatrics 2005;116:855-863.
- Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance—United States, 2007. Morbidity and Mortality Weekly Report 2008;57(SS-4):1-131.
- Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance—United States, 2007. Morbidity and Mortality Weekly Report 2008;57(SS-4):1-131.
- Roberts TA, Klein J, Fisher S. Longitudinal effect of intimate partner abuse and high-risk behavior among adolescents. Archives of Pediatrics & Adolescent Medicine 2003;157:875-881.
- Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance—United States, 2007. Morbidity and Mortality Weekly Report 2008;57(SS-4):1-131.

psychosocial and mental health consequences.<sup>54 55</sup> In 2007, 8% of high school students nationwide had ever been physically forced to have sexual intercourse when they did not want to.<sup>56</sup> Approximately 30% of students in grades 6-10 report moderate or frequent involvement in bullying, as a victim (11%), perpetrator (13%), or both (6%)<sup>57</sup>. Bullying victimization is associated with depression<sup>58</sup>, suicidal ideation<sup>59</sup>, increased odds of repeated common health problems<sup>60</sup>, school absenteeism<sup>61</sup>, psychological distress<sup>62</sup>, and feeling unsafe at school.<sup>63</sup>

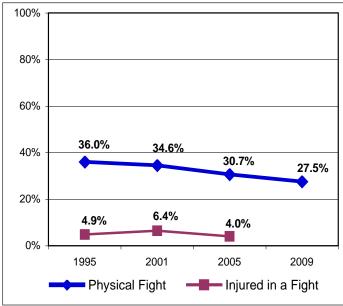
- Ackard DM, Neumark-Sztainer D. Date violence and date rape among adolescents: associations with disordered eating behaviors and psychological health. Child Abuse & Neglect 2002;26:455-473.
- Howard DE, Wang MQ. Psychosocial correlates of U.S. adolescents who report a history of forced sexual intercourse. Journal of Adolescent Health 2005;36:372-379.
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- Van der Wal MF, de Wit CA, Hirasing RA. Psychosocial health among young victims and offenders of direct and indirect bullying. Pediatrics 2003;111(6):1312-1317.
- Rigby K. Consequences of bullying in school. The Canadian Journal of Psychiatry 2003;48(9):583-590.
- Glew GM, Fan MY, Katon W, Rivara FR, Kernic MA. Bullying, psychosocial adjustment, and academic performance in elementary school. Archives of Pediatrics & Adolescent Medicine 2005;159:1026-1031.
- Rigby K. Consequences of bullying in school. The Canadian Journal of Psychiatry 2003;48(9):583-590.
- Glew GM, Fan MY, Katon W, Rivara FR, Kernic MA. Bullying, psychosocial adjustment, and academic performance in elementary school. Archives of Pediatrics & Adolescent Medicine 2005;159:1026-1031.

Figure 3.4: Involved in One or More Physical Fights, Last 12 Months



- Overall, more than one quarter (27.5%) of New Jersey high school students reported having been involved in at least one physical fight during the past year (Figure 3.4).
- ▶ More males (37.4%) than females (17.3%) were involved in one or more physical fights during the past year. A small proportion of males (4.5%) and females (1.2%) were involved in more than five fights during the previous year.
- Younger students aged 15 and younger (31.8%) were more likely than older students 16 to 17 years old or 18 years of age and older to report being in a fight in the past 12 months (25.1% and 25.8%, respectively).
- A greater proportion of Black (35.8%) and Hispanic (33.7%) students than White (23.9%) students had been in at least one physical fight within the last 12 months. Further, a greater percentage of Hispanic (5.7%) and Black (3.6%) students than White (1.8%) students reported having fought more than five times during the last 12 months.

Figure 3.5: Trends in Physical Fighting: 1995, 2001, 2005, and 2009



- The percentage of students reporting involvement in a physical fight during the previous year has declined across survey years (Figure 3.5).
- ▶ In 2009, fewer than three in 10 students (27.5%) had been in a fight during the previous year, as compared to more than one-third of students in 2001 (34.6%) and 1995 (36.0%).
- Between 4% and 6% of students required medical attention from injuries sustained from fighting across the survey years in which this question was asked. This question was not asked in 2009.

#### **HEALTHY PEOPLE 2010 NATIONAL GOAL**

Reduce physical fighting among adolescent students to 32%.

### 2009 NEW JERSEY NJSHS RESULTS

Satisfying the 2010 objective, 27.5% of New Jersey high school had been in a physical fight during the previous year.

Figure 3.6: Threatened or Injured as Result of Gang Activity, Past 12 Months

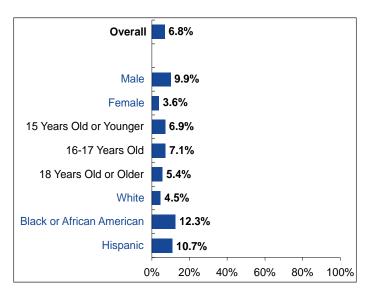
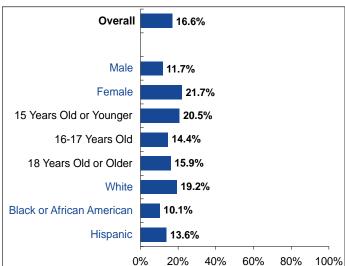
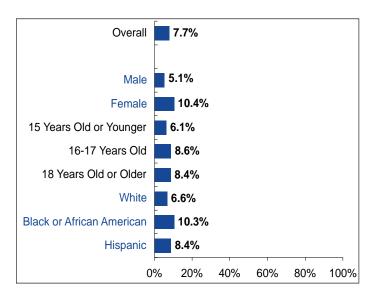


Figure 3.7: Electronically Bullied, Past 12 Months



- Overall, 6.8% of New Jersey high school students reported being threatened or injured as a result of gang activity at least once in the past 12 months (Figure 3.6).
- More males than females reported being threatened or injured by gang activity (9.9% vs. 3.6%).
- ► There were no substantial differences by age.
- Black students (12.3%) were most likely and White students (4.5%) least likely to report gangrelated threats or injuries.
- One in six (16.6%) New Jersey high school students was electronically bullied during the past 12 months such as through email, chat rooms, instant messaging, Web sites, or text messaging (Figure 3.7).
- Females (21.7%) were more likely than males (11.7%) to report such bullying in the past year.
- There was no notable difference by age group in reports of electronic bullying.
- White students (19.2%) were the most likely and Black students (10.1%) the least likely to report electronic bullying.

Figure 3.8: Had Been Physically Forced to Have Sex against Your Will, In Lifetime



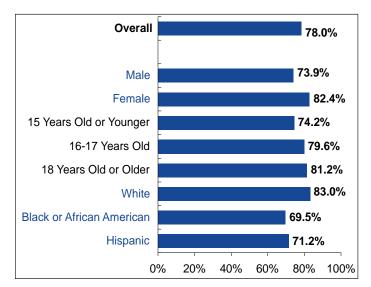
- Fewer than one in 10 (7.7%) New Jersey high school students reported that they had ever been physically forced to have sex (Figure 3.8).
- Two times more females (10.4%) than males (5.1%) had been forced to have sex.
- The frequency of physically forced sexual contact did not vary substantially by age (6.1%-8.6%) or race/ethnicity (6.6%-10.3%).

### **CHAPTER 4: PERSONAL SAFETY**

### Automobile Seatbelt Use

This question measures the frequency with which seat belts are worn when riding in a car. Motor-vehicle related injuries kill more young adults aged 15 to19 years than any other single cause in the United States.<sup>64</sup> Safety belts, when used, reduce the risk of fatal injury to front-seat passenger car occupants by 45% and the risk of moderate-to-critical injury by 50%.<sup>65</sup> In 2007, 11% of high school students nationwide had rarely or never worn a seat belt when riding in a car driven by someone else.<sup>66</sup> During 1991–2007, a significant linear decrease occurred in the percentage of students who rarely or never wore a seat belt (26%–11%).<sup>67</sup>

Figure 4.1: When Passenger in a Car, Wore a Seatbelt "Most of the Time" or "Always"



- New Jersey high school students most of the time (33.0%) or always (45.0%) used seat belts when riding in a car driven by someone else (Figure 4.1), while fewer than one in 10 students reported never (2.5%) or rarely (5.7%) using them.
- Females (82.4%) were more likely than males (73.9%) to report using seat belts most of the time or always.
- A greater proportion of students aged 18 years of age or older (81.2%) or 16 to 17 years of age (79.6%) reported that they use seat belts most of the time or always when riding in a car driven by someone else, as compared to 74.2% of students aged 15 or younger.
- ▶ White students (83.0%) were most likely to report that they most of the time or always used seat belts when riding as a passenger, followed by Hispanic and Black students (71.2% and 69.5%, respectively).

Web-based Injury Statistics Query and Reporting System (WISQARS) [database online]. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention; 2008. Accessed May 2, 2008.

National Highway Traffic Safety Administration. Traffic Safety Facts 2004: Occupant protection. National Highway Traffic Safety Administration Web site. Available at: http://www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/TSF2004/809909.pdf. Accessed June 6, 2008.

<sup>66</sup> Eaton DK, Kann L, Kinchen S, et.al. Youth Risk Behavior Surveillance—United States, 2007. Morbidity and Mortality Weekly Report 2008;57(SS-4):1-131.

Eaton DK, Kann L, Kinchen S, et.al. Youth Risk Behavior Surveillance—United States, 2007. Morbidity and Mortality Weekly Report 2008;57(SS-4):1-131.

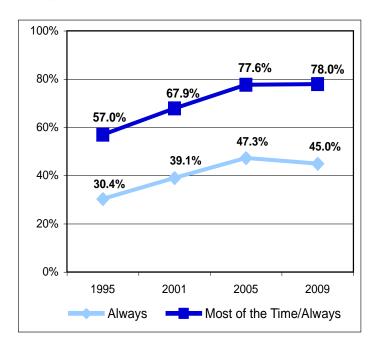
#### **HEALTHY PEOPLE 2010 NATIONAL GOAL**

Increase use of seat belts to 92%.

### 2009 NEW JERSEY NJSHS RESULTS

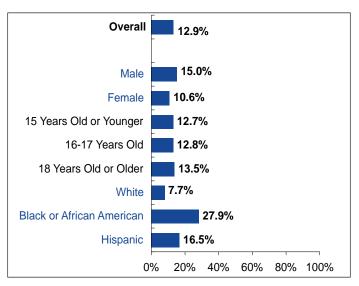
Although more than three-fourths of students (78.0%) wear their seat belts either always (45.0%) or most of the time (33.0%), seat belt use among New Jersey high school students falls short of the objective set for adults.

Figure 4.2: Trends in Seat Belt Use: 1995, 2001, 2005, and 2009



- Students' reporting of seat belt use increased steadily between 1995 and 2005 and then leveled off between 2005 and 2009 (Figure 4.2).
- ▶ In 2009, 45.0% of students reported that they always wore a seat belt when riding as a passenger. This is down slightly from 47.3% in 2005, but up from 39.1% in 2001 and 30.4% in 1995.
- More than three-fourths (78.0%) of students were their seat belts either always or most of the time, similar to 2005 (77.6%) and up from 67.9% in 2001 and 57.0% in 1995.

Figure 4.3: Walking or Bicycling to School



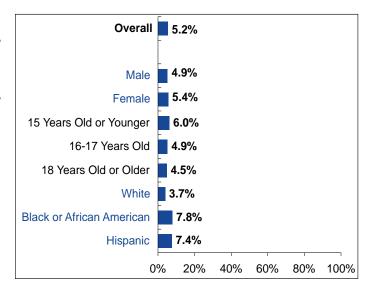
- When asked how they usually get to school, 12.9% of students said they walked or rode a bicycle. The majority of students reported riding in a car (51.6%), with fewer riding the school bus (30.0%). Fewer students took a public bus or train (4.5%), or used some other mode of transportation (1.0%).
- ► Males (15.0%) were more likely than females (10.6%) to have walked or rode a bicycle to school (Figure 4.3).
- Black students (27.9%) were more likely than Hispanic students (16.5%), and far more likely than White students (7.7%), to report walking or riding a bike to school.
- Students aged 15 or younger (12.7%) were about as likely as those aged 16-17 (12.8%) and 18 and over (13.5%) to walk or ride a bike to school.

## CHAPTER 5: SUBSTANCE USE, WEAPONS, AND VIOLENCE ON SCHOOL PROPERTY

# Weapons and Violence on School Property

These questions examine the possession of weapons, violence-related behaviors, and safety of students while they are on school property. Of all violent deaths that occurred on school property between 1994 and 2006, 65% involved firearms.<sup>68</sup> Nearly 100% of school districts have a policy prohibiting weapon possession or use by high school students on school property.<sup>69</sup> Among high school students nationwide in 2007, 18% had carried a weapon, 5% had carried a gun, and 6% had carried a weapon on school property on at least 1 day during the 30 days before the survey.<sup>70</sup> Physical fighting is a marker for other problem behaviors71 and is associated with serious injury-related health outcomes.<sup>72</sup> Among high school students nationwide in 2007, 36% had been in a physical fight and 12% had been in a physical fight on school property one or more times during the 12 months before the survey.<sup>74</sup>

Figure 5.1: Missed One or More Days of Last 30, Because Felt Unsafe



- Overall, about one in 20 (5.2%) New Jersey high school students reported that on at least one occasion during the last 30 days they did not attend school because they felt they would be unsafe at school or on the way to/from school (Figure 5.1). Only 2.2% of students felt unsafe and missed school on two or more days.
- Little variation was noted by gender (4.9%-5.4%) or by age (4.5%-6.0%).
- ▶ Black (7.8%) and Hispanic (7.4%) students were more likely than White students (3.7%) to report missing one or more days during the previous month because they felt unsafe.

Centers for Disease Control and Prevention. School-Associated Homicides- United States 1992-2006. Morbidity and Mortality Weekly Report 2008;57(02):33-36.

Jones SE, Fisher CJ, Greene BZ, Hertz MF, Pritzl J. Healthy and safe school environment, part I: results from the School Health Policies and Programs Study 2006. Journal of School Health 2007;77(8):522-543.

To Eaton DK, Kann L, Kinchen S, et.al. Youth Risk Behavior Surveillance—United States, 2007. Morbidity and Mortality Weekly Report 2008;57(SS-4):1-131.

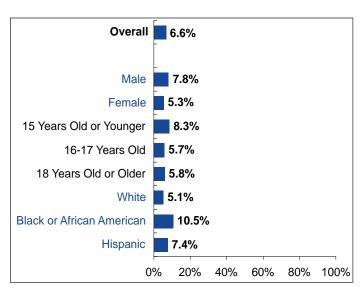
Sosin DM, Koepsell TD, Rivara FP, Mercy JA. Fighting as a marker for multiple problem behaviors in adolescents. Journal of Adolescent Health 1995;16:209-215.

Predictors of future fight-related injury among adolescents. Pediatrics 2004;113:530-536.

Pickett W, Craig W, Harel Y, et al. Cross-national study of fighting and weapon carrying as determinants of adolescent injury. Pediatrics 2005;116:855-863.

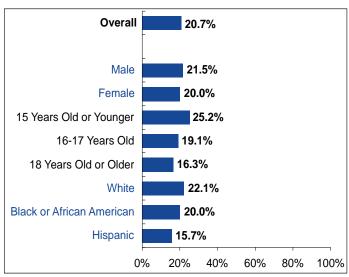
Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance—United States, 2007. Morbidity and Mortality Weekly Report 2008;57(SS-4):1-131.

Figure 5.2: Threatened or Injured With a Weapon on School Property, One or More Times, Last 12 Months



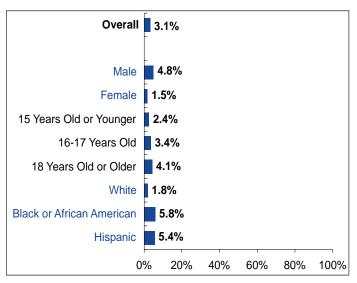
- Less than one in 10 (6.6%) New Jersey high school students reported that someone had threatened or injured them with a weapon such as a gun, knife, or a club on school property during the past 12 months (Figure 5.2). About half (3.2%) of these students were threatened or injured with a weapon such as a gun, knife, or a club on school property on more than one occasion.
- ► There was little variation in reports of threats or injury on school property by gender (5.3%-7.8%) or by age (5.7%-8.3%).
- ▶ Black students (10.5%) were most likely to report being threatened or injured at school during the past 12 months and White (5.1%) students were the least likely.

Figure 5.3: Bullied on School Property, Last 12 Months



- One in five (20.7%) New Jersey high school students had been bullied on school property in the past year (Figure 5.3).
- There was no substantial difference in reports of bullying on school property by gender.
- ➤ Young students, 15 or younger (25.2%), were the most likely and those 18 or older (16.3%) were least likely to report being bullied on school property.
- White students (22.1%) were most likely and Hispanic students (15.7%) least likely to indicate they had been bullied on school property in the past 12 months.

Figure 5.4: Carried Any Weapon on School Property, One or More Times, Last 30 Days



- Overall, 3.1% of New Jersey high school students carried a weapon, such as a gun, knife, or club on school property during the previous month (Figure 5.4). A small percentage of students (1.6%) reported carrying a weapon on school property on six or more of the previous 30 days.
- Males (4.8%) were more likely than females (1.5%) to report having carried a weapon on school property at least once during the past month.
- There was little variation by age (2.4%-4.1%).
- ▶ Black (5.8%) and Hispanic (5.4%) students were more likely than White (1.8%) students to report having carried a weapon on school property at least once.

#### **HEALTHY PEOPLE 2010 NATIONAL GOAL**

Reduce weapon carrying by adolescents on school property to 4.9%.

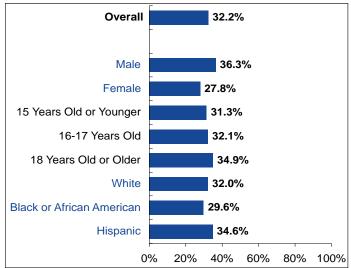
#### **2009 NEW JERSEY SHS RESULTS**

Meeting the 2010 goal, 3.1% of New Jersey high school students carried a weapon on school property during the previous month.

# Substances on School Property

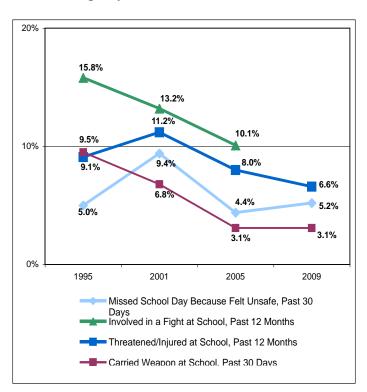
The survey included one question regarding illegal drugs on school property.

Figure 5.5: Offered, Sold or Given Illegal Drugs on School Property



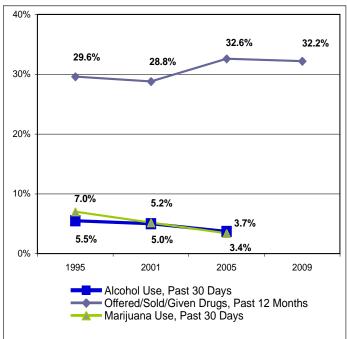
- Nearly one-third (32.2%) of high school students reported being offered, sold, or given illegal drugs on school property in the past 12 months (Figure 5.5).
- Males were more likely than females to report being offered, sold or given drugs on school property (36.3% and 27.8%, respectively).
- There was no notable difference by age (31.3%-34.9%) or race/ethnicity (29.6%-34.6%) in the percentage of students who reported being offered, sold or given drugs on school property in the past 12 months.

Figure 5.6: Trends in Weapons and Violence on School Property: 1995, 2001, 2005, and 2009



- Rates of violence and weapon possession on school property remained essentially unchanged from 2005 to 2009 (Figure 5.6).
- ▶ In 2009 (5.2%), the percentage of high school students who did not attend at least one out of the last 30 days of school because they felt unsafe going to or from school remained at roughly the level reported in 1995 (5.0%) and 2005 (4.4%) and lower than the high of 9.4% seen in 2001.
- ► The proportion of students who were involved in fights on school property during the previous 12 months was at a low of 10.1% in 2005 from a high of 15.8% in 1995. This question was not asked in 2009.
- ▶ In 2009, 6.6% of students had been threatened or injured on school grounds during the previous year, down slightly from 8.0% in 2005 and lower than the high seen in 2001 (11.2%).
- ► The proportion of students who carried a weapon on school property during the previous month in 2009 was the same as the low reached in 2005 (3.1%).

Figure 5.7: Trends in Substance Use on School Property: 1995, 2001, 2005, and 2009



- The percentage of high school students who reported being offered, sold or given drugs on school property in the past 12 months remained stable between 2005 and 2009 at roughly 32% which is a slight increase from the low of 28.8% seen in 2001 (Figure 5.7).
- The use of alcohol on school property remained fairly steady over the survey years in which it was asked (5.5%-3.7%); however this question was not asked in the 2009 survey.
- The use of marijuana on school property declined slightly from a high of 7.0% in 1995 to a low of 3.4% in 2005. This question was not asked in the 2009 survey.

## CHAPTER 6: SEXUAL BEHAVIORS, PREGNANCY, AND HIV/AIDS

### Sexual Behaviors

These questions measure the prevalence of sexual activity, number of sexual partners, age at first intercourse, alcohol and other drug use related to sexual activity, condom use, contraceptive use, and whether high school students received HIV prevention education. Early initiation of sexual intercourse is associated with having a greater number of lifetime sexual partners. <sup>75</sup> <sup>76</sup> <sup>77</sup> In addition, adolescents who initiate sexual intercourse early are less likely to use contraception <sup>78</sup> <sup>79</sup> and are at higher risk for pregnancy. <sup>80</sup> <sup>81</sup> Recent estimates suggest that while representing 25% of the ever sexually active population, persons aged 15 to 24 years acquire nearly half of all new STDs. <sup>82</sup> Gonorrhea rates are highest among females between the ages of 15 and 19 years (647.9 cases per 100,000 females) and males between the ages of 20

and 24 years (454.1 cases per 100,000 males).<sup>83</sup> In 2006, there were an estimated 5,218 cases of HIV/AIDS among persons aged 15–24 years.<sup>84</sup> Among high school students nationwide, 48% had ever had sexual intercourse, 15% had had sexual intercourse with 4 or more persons during their life, and 35% had had sexual intercourse with at least 1 person during the 3 months before the survey. The percentage of students who ever had sexual intercourse decreased during 1991–2007 (54%–48%).<sup>85</sup> In 2006, 88% of high schools taught HIV prevention education in a required health education course.<sup>86</sup>

<sup>75</sup> Shrier LA, Emans SJ, Woods ER, DuRant RH. The association of sexual risk behaviors and problem drug behaviors in high school students. Journal of Adolescent Health 1996;20:377–383.

<sup>76</sup> Santelli JS, Brener ND, Lowry R, et al. Multiple sexual partners among U.S. adolescents and young adults. Family Planning Perspectives 1998;30:271–5.

Santelli JS, Kaiser J, Hirsch L, Radosh A, Simkin L, Middlestadt S. Initiation of sexual intercourse among middle school adolescents: the influence of psychosocial factors. Journal of Adolescent Health 2004;34(3): 200-208.

<sup>78</sup> Santelli JS, Kaiser J, Hirsch L, Radosh A, Simkin L, Middlestadt S. Initiation of sexual intercourse among middle school adolescents: the influence of psychosocial factors. Journal of Adolescent Health 2004;34(3): 200-208.

<sup>79</sup> Manning WD, Longmore MA, Giordano PC. The relationship context of contraceptive use at first intercourse. Family Planning Perspectives 2000;32(3):104–110.

Manlove J, Terry E, Gitelson L, Papillo AR, Russell S. Explaining demographic trends in teenage fertility, 1980–1995. Family Planning Perspectives 2000;32(4):166–175.

Thornberry TP, Smith CA, Howard GJ. Risk factors for teenage fatherhood. Journal of Marriage & the Family 1997;59:505–522.

Weinstock H, Berman S, Cates W. Sexually transmitted disease among American youth: Incidence and prevalence estimates, 2000. Perspectives on Sexual and Reproductive Health 2004;36(1):6–10.

R3 Centers for Disease Control and Prevention. Sexually Transmitted Disease Surveillance, 2006. November 2007; Atlanta, GA: U.S. Department of Health and Human Services. Available at: http://www.cdc.gov/std/stats/default.htm. Accessed May 7, 2008.

<sup>84</sup> CDC. HIV/AIDS Surveillance Report, 2006. Vol. 18. Atlanta: US Department of Health and Human Services, Centers for Disease Control and Prevention; 2008. Available at: http://www.cdc.gov/hiv/stats/hasrlink.htm. Accessed June 5, 2008.

Eaton DK, Kann L, Kinchen S, et al. Youth Risk Behavior Surveillance—United States, 2007. Morbidity and Mortality Weekly Report 2008;57(SS-4):1-131.

Kann L, Telljohann SK, Wooley SF. Health education: Results from the School Health Policies and Programs Study 2006. Journal of School Health 2007; 77: 408-434.

Figure 6.1: Sexual Intercourse in Lifetime

Hispanic

0%

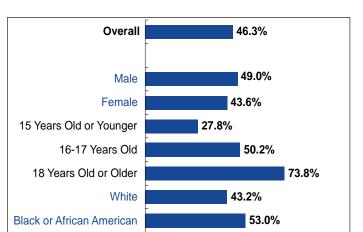
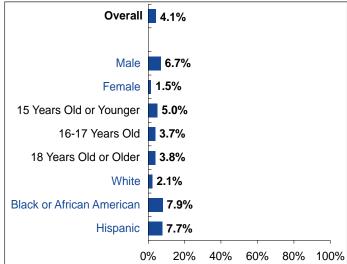


Figure 6.2: First Sexual Intercourse before Age 13



• Overall, less than half (46.3%) of New Jersey high school students had sexual intercourse in their lifetime (Figure 6.1).

20%

40%

57.6%

80%

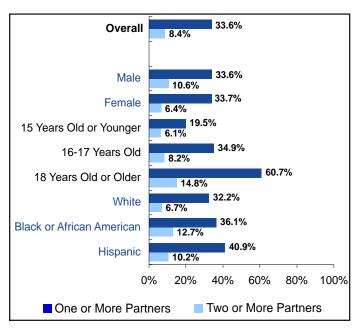
100%

60%

- Males (49.0%) were more likely than females (43.6%) to have had sexual intercourse.
- The likelihood that students had sexual intercourse increased with age. Three- fourths of students 18 years old or older (73.8%) had ever had intercourse, as compared to half of 16-17 year olds (50.2%) and more than one-fourth (27.8%) of those 15 years old and younger.
- A greater proportion of Hispanic (57.6%) and Black (53.0%) students than White (43.2%) students indicated they had engaged in sexual intercourse.

- Overall, 4.1% of New Jersey high school students had sexual intercourse for the first time before the age of 13 (Figure 6.2).
- Males were more likely than females to have had sexual intercourse for the first time before the age of 13 (6.7% vs. 1.5%, respectively).
- ► There was little variation by age (3.7%-5.0%).
- ► Higher percentages of Black (7.9%) and Hispanic (7.7%) students than White students (2.1%) reported having sexual intercourse for the first time before the age of 13.

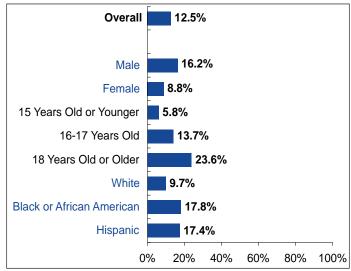
Figure 6.3: One or More Sexual Partners, Past Three Months



- While less than one half (46.3%) of New Jersey high school students reported having had sexual intercourse in their lifetime, one-third (33.6%) were "sexually active" meaning they had sexual intercourse during the past three months (Figure 6.3). However, fewer than one in ten students (8.4%) had sex with multiple sexual partners in the last three months.
- Males were slightly more likely than females to have had sex in their lifetime (49.0% and 43.6%, respectively), but males and females were equally likely to have had sex within the last three months (33.6% and 33.7%, respectively). However, a slightly greater proportion of males (10.6%) than females (6.4%) reported having more than two sexual partners during the past three months.
- The proportion of students who had sex during the past three months increased with age. Six in ten (60.7%) students 18 or older had sex during the past three months. This figure dropped to 34.9% among 16-17 year olds and 19.5% among those 15 or younger. Older students were also more likely to have had multiple partners in this period than were younger students. Those 18 and older (14.8%) more frequently reported having two or more sexual partners than 16 to 17 year olds (8.2%) or those 15 years of age and younger (6.1%).

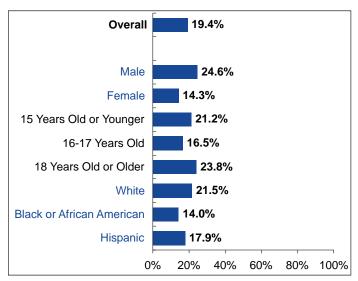
Hispanic students (40.9%) were the most likely and White students (32.2%) least likely to have engaged in sexual intercourse during the past three months. Black students (12.7%) were more likely than White students (6.7%) to have had multiple partners during this time period.

Figure 6.4: Four or More Sexual Partners in Lifetime



- Overall, a similar percentage of New Jersey high school students had only one sexual partner in their lifetime or two to three partners (17.5% and 16.4%, respectively). More than one in 10 students (12.5%) had four or more sexual partners in their lifetime (Figure 6.4).
- Males were almost twice as likely as females to report having four or more lifetime sexual partners (16.2% and 8.8%, respectively).
- Older students were more likely than younger students to report multiple sexual partners. Nearly one-fourth (23.6%) of students 18 years old or older reported having four or more sexual partners in their lifetime, as compared to 13.7% of 16-17 year olds and 5.8% of those 15 or younger.
- More Black (17.8%) and Hispanic (17.4%) students than White students (9.7%) indicated having four or more sexual partners in their lifetime.

Figure 6.5: Used Alcohol or Drugs Prior to Last Sexual Encounter\*

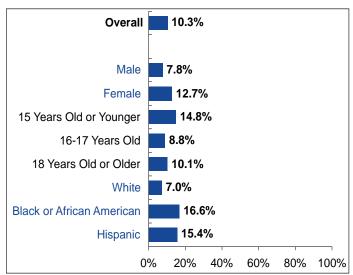


<sup>\*</sup>Among students who had sexual intercourse in the past 3 months.

- Among students who had sexual intercourse in the past 3 months, one in five (19.4%) reported that they used drugs or alcohol prior to their last sexual encounter (Figure 6.5).
- Among sexually active students, a greater proportion of males (24.6%) than females (14.3%) reported using alcohol or drugs when last having sex.
- Students aged 16 or 17 were the least likely (16.5%) and those 18 or older were the most likely (23.8%) to report that they used alcohol or drugs prior to having sex the last time.
- ▶ White students (21.5%) were the most likely and Black students (14.0%) least likely to report the use of alcohol or drugs prior to their last sexual encounter.

# Contraceptives and Pregnancy

Figure 6.6: No Birth Control Method, Last Sexual Encounter\*

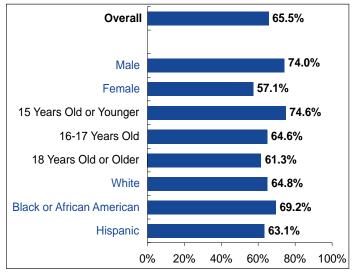


\*Among students who had sexual intercourse in the past 3 months.

- One in 10 (10.3%) sexually active students reported that they used no form of birth control the last time that they had sex (Figure 6.6). No birth control refers to those who indicated they used no listed method among condom, pill, Depo-Provera, withdrawal, some other method or not sure.
- Females were slightly more likely than males to report that they did not use any form of birth control the last time they had sex (12.7% vs. 7.8%).
- A greater proportion of Black and Hispanic students (16.6% and 15.4%, respectively) than White students (7.0%) reported that they did not use some form of birth control the last time they had sex.
- Sexually active students were asked which birth control method they used the last time they had sexual intercourse. Among these students, condoms (52.6%) were the primary method of birth control. Birth control pills (19.5%) were the second most popular method.
- One in four (24.7%) sexually active students used either no method of birth control (10.3%) during their last sexual encounter or used an inadequate pregnancy prevention method students who identified the withdrawal method (12.7%)

or were not sure (1.7%). The survey did not ask specifically about use of the contraceptive patch or vaginal ring

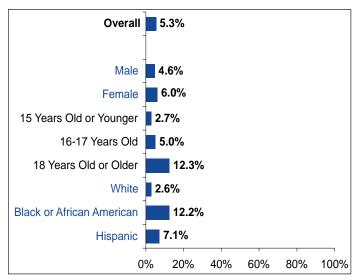
Figure 6.7: Used Condom, Last Sexual Encounter\*



<sup>\*</sup>Among students who have had sexual intercourse in the last three months.

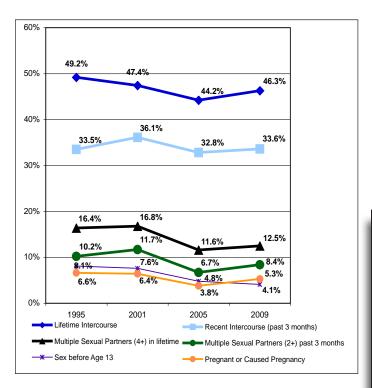
- Primarily depended on during their last sexual encounter, students were also asked whether they or their partner used a condom the last time (Figure 6.7). The majority of sexually active students reported that they, or their partner, used a condom during their last sexual encounter (65.5%).
- A greater proportion of males (74.0%) than females (57.1%) reported condom use during their last sexual encounter.
- Students 15 years old or younger (74.6%) reported the greatest frequency of condom use the last time they had sex compared to those aged 16-17 (64.6%) and those 18 or older (61.3%).
- There was no substantial difference by race/ethnicity in the proportion of students reporting condom use the last time they had sex.

Figure 6.8: Ever Pregnant or Caused a Pregnancy



- About one in twenty (5.3%) students indicated that they had been pregnant or had caused someone to become pregnant (Figure 6.8).
- ► There was little variation by gender (4.6%-6.0%).
- More than two times as many students 18 years of age or older (12.3%) reported ever being pregnant or causing a pregnancy, as compared to 16-17 year olds (5.0%) and those 15 or younger (2.7%).
- A greater proportion of Black (12.2%) and Hispanic (7.1%) students than White (2.6%) students reported having ever been pregnant or causing a pregnancy.

Figure 6.9: Trends in Sexual Behaviors: 1995, 2001, 2005, and 2009



- The percentage of New Jersey high school students who had sexual intercourse in their lifetime increased slightly from 44.2% in 2005 to 46.3% in 2009 (Figure 6.9).
- Over the years, about one-third of students had intercourse during the past three months. This figure was 33.6% in 2009, about the same as in 2005 (32.8%) and prior survey years.
- The proportion of students who reported having more than one sexual partner in the past three months declined between 2001 (11.7%) and 2005 (6.7%) and remained essentially unchanged in 2009 (8.4%). Students having four or more sexual partners in their lifetime showed a similar pattern a high of 16.8% in 2001 followed by a low of 11.6 in 2005. This figure remained essentially unchanged in 2009 at 12.5%.

- The percentage of students having sex before the age of 13 remained about the same in 2009 (4.1%) compared to 2005 (4.8%). These levels are below those in 1995 and 2001 (8.1% and 7.6% respectively).
- The percentage of students who reported ever being pregnant or causing someone to be pregnant has remained fairly stable from a high of 6.6% in 1995 to a low of 3.8% in 2005 and the current level of 5.3%.

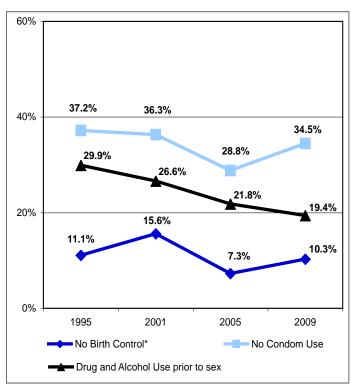
### **HEALTHY PEOPLE 2010 NATIONAL GOAL**

Increase the proportion of adolescents who abstain from sexual intercourse or use condoms if currently sexually active to 95%.

### **2009 NEW JERSEY SHS RESULTS**

New Jersey high school students abstained from sexual intercourse (53.7%) and used condoms during their last sexual encounter (65.5%) at rates much lower than the 2010 national goal. A total of 85.9% of New Jersey high school students either have not had sex in their lifetime or they or their partner used a condom during their last sexual encounter.

Figure 6.10: Trends in Birth Control, and Pregnancy: 1995, 2001, 2005, and 2009

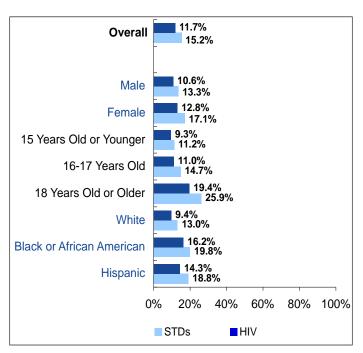


<sup>\*</sup>Among students who have had sexual intercourse in the past 3 months.

- In 2009, the percentage of sexually active students who reported NOT using a condom the last time they had sexual intercourse increased to 34.5% from its low of 28.8% in 2005. Although, the 2009 figure remains slightly below the high of 37.2% that reported not using condoms in 1995 (Figure 6.10).
- Among sexually active students, the percentage that used drugs/alcohol prior to their last sexual encounter has decreased each survey year from a high of 29.9% in 1995 to its current low of 19.4% in 2009.
- The percentage of sexually active students that used no form of birth control when they last had sex was slightly higher in 2009 (10.3%) compared to 2005 (7.3%) but it remains below the figure reported in 2001 (15.6%).

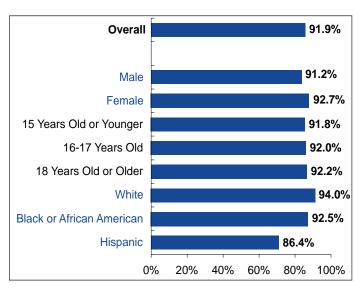
# HIV Education and Testing

Figure 6.11: Ever Been Tested for HIV, Other STD, or Both



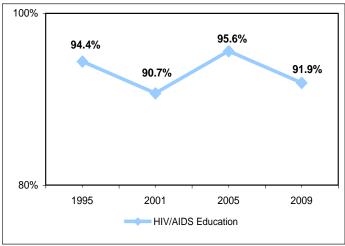
- Slightly more than one in 10 (11.7%) high school students had ever been tested for HIV and, slightly more (15.2%), for sexually transmitted diseases (STD) (Figure 6.11).
- Males (10.6%) and females (12.8%) were about equally likely to have been tested for HIV but females (17.1%) were more likely than males (13.3%) to report being tested for STDs.
- The likelihood of having been tested for HIV or STDs increased with age. Students 18 years old or older were more than two times as likely as those 15 or younger to have ever been tested for HIV (19.4% versus 9.3%) or STDs (25.9% versus 11.2%).
- black and Hispanic students were more likely than White students to report being tested for both HIV (16.2% and 14.3% vs. 9.4%, respectively) and STDs (19.8% and 18.8% vs. 13.0%).

Figure 6.12: Had HIV/AIDS Education in High School



- Nine out of ten (91.9%) New Jersey high school students reported that they have been taught about AIDS or HIV in high school (Figure 6.12).
- ► There was no substantial variation by gender or age.
- ► Hispanic students (86.4%) were less likely than Black (92.5%) or White (94.0%) students to have had AIDS/HIV education in school.

Figure 6.13: Trends in HIV/AIDS Education: 1995, 2001, 2005, 2009



► The percentage of students who reported having been taught about AIDS or HIV infection in school dropped to 91.9 in 2009 from a high of 95.6% in 2005 (Figure 6.13).

### CHAPTER 7: PHYSICAL ACTIVITY

These questions measure participation in physical **L** activity, physical education classes, sports teams, television watching, and video game/computer use. Participation in regular physical activity among young people can help build and maintain healthy bones and muscles, maintain body weight and reduce body fat, reduce feelings of depression and anxiety, and promote psychological well-being.<sup>87 88</sup> Over time, regular physical activity decreases the risk of high blood pressure, heart disease, diabetes, some types of cancer, and premature The 2005 Dietary Guidelines for Americans death.89 recommends that youth engage in at least 60 minutes of physical activity on most, preferably all, days of the week.<sup>90</sup> In 2007, 35% of high school students nationwide had been physically active doing any kind of physical activity that increased their heart rate and made them breathe hard some of the time for a total of at least 60 minutes/day on 5 or more days during the 7 days before the survey.<sup>91</sup> School physical education classes can increase adolescent

participation in physical activity<sup>92</sup> <sup>93</sup> <sup>94</sup> and help high school students develop the knowledge, attitudes, and skills they need to engage in lifelong physical activity.<sup>959697</sup> In 2007, 54% of high school students nationwide went to physical education classes on 1 or more days in an average week when they were in school.<sup>98</sup> Television (TV) viewing, computer usage, and video/DVD usage are all considered sedentary behaviors. Child and adolescent TV viewing, in particular, is associated with

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U.S. Department of Health and Human Services. Physical Activity and Health: A Report of the Surgeon General. Atlanta, GA, Centers for Disease Control and Prevention; National Center for Chronic Disease Prevention and Health Promotion, 1996.

<sup>88</sup> Strong WB, Malina RM, Blimke CJR, et al.. Evidence based physical activity for school-age youth. Journal of Pediatrics 2005;146:732-737.

<sup>89</sup> US Department of Health and Human Services. Physical Activity and Health: A Report of the Surgeon General. Atlanta, GA, Centers for Disease Control and Prevention; National Center for Chronic Disease Prevention and Health Promotion, 1996.

<sup>90</sup> US Department of Health and Human Services and US Department of Agriculture: Dietary Guidelines for Americans 2005. Washington, DC, 2005. Available at http://www.healthierus.gov/dietaryguidelines/. Accessed June 5, 2008.

Eaton DK, Kann L, Kinchen S, et al. Youth Risk Behavior Surveillance—United States, 2007. Morbidity and Mortality Weekly Report 2008;57(SS-4):1-131.

<sup>92</sup> Trudeau F, Shephard RJ. Contribution of school programmes to physical activity levels and attitudes in children and adults. Sports Medicine 2005;35(2):89-105.

<sup>93</sup> McKenzie TL, Li DL, Derby CA, Webber LS, Luepker RV, Cribb P. Maintenance of effects of the CATCH Physical Education Program: Results from the CATCH-ON Study. Health Education & Behavior 2003;30:447-462.

<sup>94</sup> McKenzie TL, Sallis JF, Prochaska JJ, Conway TL, Marshall SJ, Rosengard P. Evaluation of a two-year middle-school physical education intervention: M-SPAN. Medicine & Science in Sports & Exercise 2004;36:1382-1388.

childhood and adult obesity<sup>99</sup> <sup>100</sup> <sup>101</sup> <sup>102</sup> <sup>103</sup> and youth who engage in less than two hours of TV viewing per day tend to be more active. <sup>104</sup> Computer usage and video game playing are associated with physical inactivity among adolescents<sup>105</sup> and young adults. <sup>106</sup> Among high school students nationwide in 2007, 35% watched television 3 or more hours per day on an average school day. During 1999–2007, a significant linear decrease occurred in the percentage of high school students who watched television 3 or more hours per day (43%–35%). <sup>107</sup>

<sup>99</sup> Utter J, Neumark-Sztainer D, Jeffery R, Story M. Couch potatoes or french fries: are sedentary behaviors associated with body mass index, physical activity, and dietary behaviors among adolescents? Journal of the American Dietetic Association 2003;103(10):1298-1305.

<sup>100</sup> Crespo CJ, Smith E, Troian RP, Bartlett SJ, Macera CA, Anderson RE. Television watching, energy intake, and obesity in US children. Archives of Pediatric and Adolescent Medicine 2001;155:360-365.

Hancox RJ, Poulton R. Watching television is associated with childhood obesity: but is it clinically important? International Journal of Obesity 2006;30(1):171-175.

Kaur H, Choi WS, Mayo MS, Harris KJ. Duration of television watching is associated with increased body mass index. Journal of Pediatrics 2003;143(4):506-511.

<sup>103</sup> Lowry R, Wechsler H, Galuska D, Fulton J, Kann L. Television viewing and its associations with overweight, sedentary lifestyle, and insufficient consumption of fruits and vegetables among US high school students: differences by race, ethnicity, and gender. Journal of School Health 2002; 72(10):413-421.

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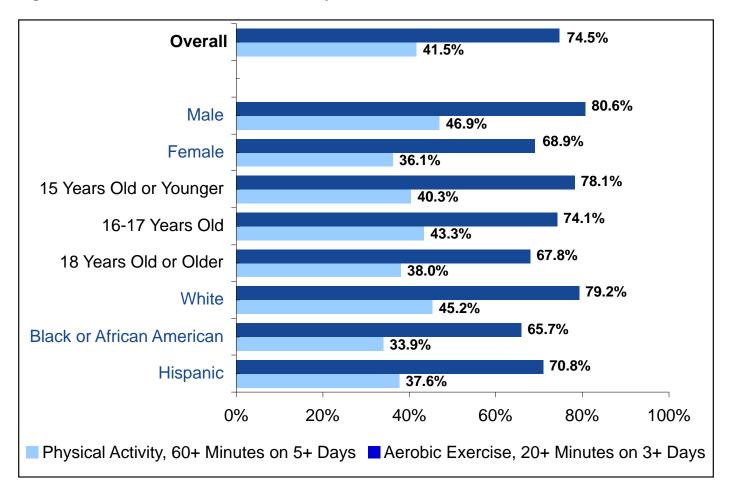
<sup>105</sup> Gordon-Larson P, Adair LS, Popkin BM. Ethnic differences in physical activity and inactivity patterns and overweight status. Obesity Research 2002;10(3):141-149.

Fotheringham MJ, Wonnacott RL, Owen N. Computer use and physical inactivity in young adults: public health perils and potentials of new information technologies. Annals of Behavioral Medicine 2000;22:269-275.

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## Physical Fitness

Figure 7.1: Exercise Practices, Past Seven Days



- Poverall, about three-fourths (74.5%) of New Jersey high school students performed aerobic exercise that is they spent three or more of the past seven days engaging in physical activity for at least 20 minutes that did make them sweat and breathe hard, such as basketball, soccer, running, swimming laps, fast bicycling, fast dancing, or similar aerobic activities (Figure 7.1).
- ► Four in 10 (41.5%) participated in some physical activity that is stayed physically active for at least 60 minutes or more during an activity that increased their heart rate and made them breathe hard some of the time on five or more of the previous seven days.
- Males were more likely than females to engage in both aerobic exercise on three or more days (80.6% vs. 68.9%) and physical activity five or more days (46.9% vs. 36.1%).
- The amount of physical activity students reported did not vary much by age. However, younger students were more likely than those 18 or older to engage in aerobic exercise; 78.1% of those 15 and younger and 74.1% of 16-17 year olds compared to 67.8% of those 18 and older.
- White students (79.2%) were more likely than Hispanic (70.8%) or Black (65.7%) students to participate in aerobic exercise and more likely to participate in physical activity (45.2% compared to 37.6% and 33.9%, respectively).

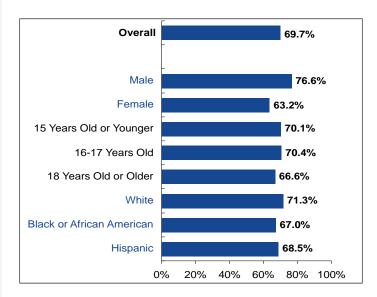
### **HEALTHY NEW JERSEY 2010 GOAL**

Increase the proportion of adolescents who engage in aerobic physical activity that promotes cardio respiratory fitness three or more days per week for 20 or more minutes per occasion to 85%.

### **2009 NEW JERSEY SHS RESULTS**

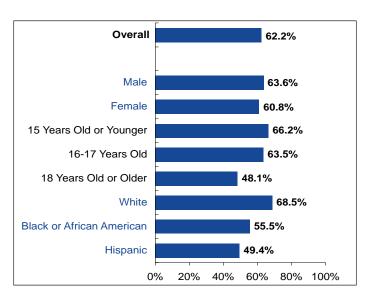
Three-fourths of all New Jersey high school students (74.5%) engaged in 20 minutes of vigorous aerobic exercise on three or more of the previous seven days, falling short of the objective. Males (80.6%) and Whites (79.2%) were the groups most likely to report aerobic exercise.

Figure 7.2: Spent More than 20 Minutes Exercising During Average PE Class



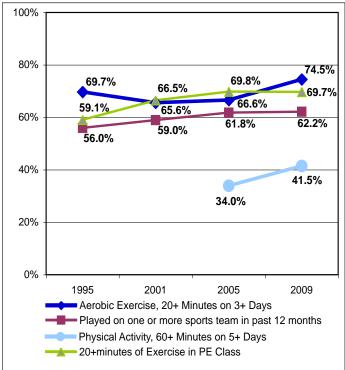
- Overall, seven in ten (69.7%) New Jersey high school students spent more than 20 minutes exercising or playing sports in an average PE class (Figure 7.2).
- ► Males (76.6%) were more likely than females (63.2%) to actually exercise or play sports for more than 20 minutes in PE class.
- There were no notable differences in the percentage of students who reported playing sports or exercising for more than 20 minutes in an average PE class by age or race/ethnicity.

Figure 7.3: Played on One or More Sports Teams, Past 12 Months



- More than six in ten (62.2%) New Jersey high school students played on one or more sports teams in the past 12 months (Figure 7.3).
- Males and females did not differ substantially in their reports of playing on sports teams.
- ▶ Students 18 of age or older were less likely than younger students 16-17 or 15 and younger to report they played on at least one sports team in the past year (48.1% vs. 63.5% and 66.2%, respectively).
- Whites students (68.5%) were more likely than Black (55.5%) or Hispanic (49.4%) students to have played on one or more sports teams in the last year.

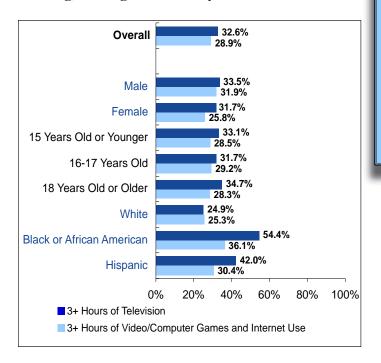
Figure 7.4: Trends in Physical Activity: 1995, 2001, 2005, and 2009



- In 1995, 2001 and 2005, approximately twothirds of students (65.6%-69.7%) reported engaging in aerobic exercise for 20 or more minutes on three or more days per week (Figure 7.4). In 2009, that figure increased to 74.5%.
- ▶ In 2009, four in ten students (41.5%) had been physically active for at least 60 minutes 5 or more days in the previous week, as compared to 34.0% of students in 2005.
- ▶ In 2009, six in ten students (62.2%) played on at least one sports team in the past 12 months, about the same percentage as participated in sports in 2005 (61.8%) but greater than the level seen in 1995 (56.0%).
- The percentage of students who reported exercising or playing sports for more than 20 minutes during PE class remained unchanged between 2005 (69.8%) and 2009 (69.7%). These levels represent an increase from the level seen in 1995 (59.1%).

# Watching Television and Playing Video Games/Computer Use

Figure 7.5: Three or More Hours of Electronic Viewing, Average School Day



- Overall, more than three in ten (32.6%) New Jersey high school students watched three or more hours of television on an average school day. Slightly less than three in ten (28.9%) students reported playing video games or using the computer for purposes other than school work for three or more hours on an average school day (Figure 7.5).
- On an average school day, females generally watched nearly the same amount of TV as males (31.7% vs. 33.5%) but used video games or the computer less than males (25.8% vs. 31.9%).
- ► The number of hours spent watching television and using video games or the computer was similar across age groups for television viewing (31.7%-34.7%) and for video/computer games (28.3%-29.2%).
- ▶ Black students (54.4%) were most likely and White students (24.9%) least likely to report watching three or more hours of TV on an average school day. The same pattern was evident for using video games or the computer (Black students 36.1% and White students 25.3%).

### HEALTHY PEOPLE 2010 NATIONAL GOAL

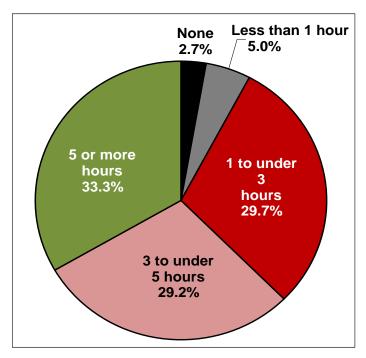
Increase the proportion of adolescents who view television two or fewer hours on an average school day to 75%.

### **2009 NEW JERSEY SHS RESULTS**

More than six in 10 New Jersey high school students (67.4%) viewed television two or fewer hours per day, falling short of the objective.

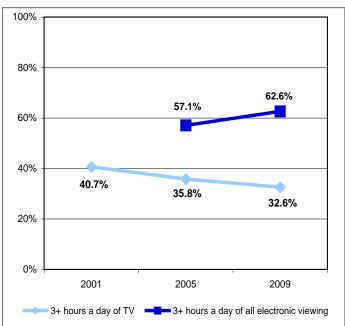
Student responses in regards to the activities mentioned in these two questions were combined to analyze how much time students spent watching television or using video games or the Internet. Results of this analysis are presented in Figure 7.6.

Figure 7.6: Total Hours of Electronic Viewing on an Average School Day



• One-third (33.3%) of New Jersey High School students reported 5 or more total hours of electronic viewing on an average school day. An additional three in ten reported 3 to under five hours (29.2%) and 1 to under 3 hours (29.7%).

Figure 7.7: Trends in Electronic Viewing: 2001, 2005, and 2009



Fewer New Jersey high school students watched three or more hours of television on an average school day in 2009 (32.6%) than in previous years (35.8% in 2005; 40.7% in 2001). This, of course, could be due to more hours spent on other computer/video sources. The 2007 survey was the first year to include questions on the use of video games and computers for reasons other than school work (Figure 7.7).

### **CHAPTER 8: HEALTH AND DIETARY PATTERNS**

# Weight and Body Mass Index

These questions measure self-reported height and weight and perceived body weight. Data on self-reported height and weight is used to calculate body mass index (BMI) and determine the corresponding BMI-forage percentile for adolescents. BMI-forage percentile is a proxy measure of weight status, correlates with body fat<sup>108</sup>, and is recommended for assessing weight status in youth ages 2-20.<sup>109</sup>

Although obesity prevalence estimates derived from self-report data are likely to be low<sup>110</sup>, they are useful for tracking trends over time. In addition, obesity prevalence trends from national surveys of adults using self-reported height and weight<sup>111</sup> have been consistent with trend data from national surveys using measured height and weight.<sup>112</sup> It is critical to continue monitoring these data because the prevalence of obesity among adolescents

has tripled since 1980.<sup>113</sup> Obesity during adolescence is associated with negative psychological and social consequences and health problems such as type 2 diabetes, obstructive sleep apnea, hypertension, dyslipidemia, and metabolic syndrome.<sup>114</sup> Further, obese adolescents are more likely to become obese adults.<sup>115</sup> 116 Nationwide in 2007, 13% of high school students were obese and 16% were overweight.<sup>117</sup> During 1999–2007, significant increases occurred in the percentage of students who were obese (11%–13%) and who were overweight (14%–16%).<sup>118</sup>

Data on student self-reported height and weight was used to calculate a body mass index (BMI) and compared to an index population established by CDC for age and gender. BMI is calculated as weight in kilograms, divided by height in meters squared. For adults, a BMI of 25 or greater is considered *overweight*, while a BMI of 30 or more is considered *obese*. For children, the BMI is expected to increase with age and to differ for boys and girls. A child's BMI that is in the 85<sup>th</sup> to 95<sup>th</sup> percentile of the

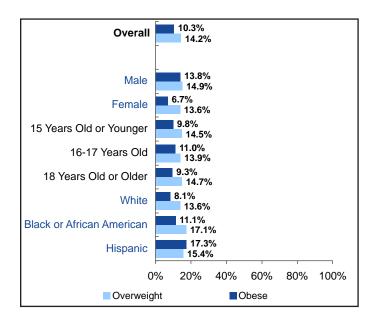
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- 115 Guo SS, Wu W, Cameron W, Roche AF. Predicting overweight and obesity in adulthood from body mass index values in childhood and adolescence. American Journal of Clinical Nutrition 2002;76:653-658.
- Daniels SR, Arnett DK, Eckel RH, et. al. Overweight in children and adolescents: Pathophysiology, consequences, prevention, and treatment. Circulation 2005;111:1999-2012.
- Eaton DK, Kann L, Kinchen S, et al. Youth Risk Behavior Surveillance -- United States, 2007. Morbidity and Mortality Weekly Report 2008:57(SS-4):1-131.
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index population for gender and age is characterized as *overweight*, while a BMI greater than the 95<sup>th</sup> percentile is considered as obese. All others who are at the 85<sup>th</sup> percentile or below are considered *normal*. For example, a 15-year-old boy with a height of 5 feet 7 inches and a weight of 175 pounds would have a BMI of 27.4. A BMI of 27 or greater for a boy of this age is at the 95<sup>th</sup> percentile and considered *overweight*. For a 15-year-old girl of the same height (5 feet 7 inches) to meet the 95<sup>th</sup> percentile level marking obesity, she would have to weigh 179 pounds for a BMI of 28. If these teens each lost five pounds, they would be classified as *overweight*.

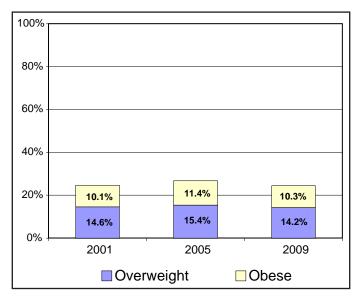
These BMI findings may under-identify overweight students. Thus, a greater percentage of students may be overweight than are indicated in the following table.

Figure 8.1: Student Body Mass Index (BMI)



- ▶ Overall, one-fourth (24.5%) of New Jersey high school students have a Body Mass Index (BMI) that would classify them as either obese (10.3%) or overweight (14.2%) (Figure 8.1).
- More males (13.8%) than females (6.7%) were classified as obese but there is no substantial difference in the percentage of males and females who were classified as overweight (14.9% vs. 13.6%, respectively).
- ► There were no substantial differences in the percentages of students classified as overweight or obese by age group.
- More Hispanic (17.3%) students were classified as being obese than White students (8.1%).

Figure 8.2: Trends in Student Body Mass Index (BMI): 2001, 2005, and 2009



- The percentage of New Jersey high school students who have a BMI that would classify them as overweight has mostly remained the same over the three survey periods from 2001, 2005, and 2009, ranging between 14.2% and 15.4% (Figure 8.2).
- ► The percentage of students who have a BMI that would classify them as obese has also stayed about the same over this time period (10.1%-11.4%).
- Overall, the combined percentages of students having a BMI outside the normal range has remained essentially the same over the three survey periods from 24.7% in 2001 to 26.8% in 2005, and 24.5% in 2009.

# Dietary Habits

These questions measure dietary behaviors, including consumption of fruits and vegetables, soda or pop, and milk. The fruit and vegetable questions are similar to questions asked of adults on CDC's Behavioral Risk Factor Survey. Fruits and vegetables are good sources of complex carbohydrates, vitamins, minerals, and other substances that are important for good health. There is probable evidence to suggest that dietary patterns with higher intakes of fruits and vegetables are associated with a decreased risk for some types of cancer, 20 121 122 cardiovascular disease 3, and stroke. Although data are limited, an increased intake of fruits and vegetables appears to be associated with a decreased risk of being

119 Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System Survey Questionnaire. 2005. Atlanta, GA, U.S. Department of Health and Human Services; Centers for Disease Control and Prevention. Available at:

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- 121 Kushi LH, Byers T, Doyle C, Bandera EV, Mc-Cullough M, McTiernan A, Gansler T, Andrews KS, Thun MJ; American Cancer Society 2006 Nutrition and Physical Activity Guidelines Advisory Committee. American Cancer Society Guidelines on Nutrition and Physical Activity for cancer prevention: reducing the risk of cancer with healthy food choices and physical activity. CA: A Cancer Journal for Clinicians 2006; 56:254-281.
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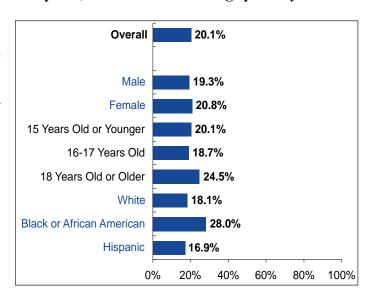
overweight. <sup>125</sup> <sup>126</sup> <sup>127</sup> In 2007, 21% of high school students nationwide ate fruits and vegetables five or more times per day during the 7 days before the survey. <sup>128</sup> During 1999–2007, a significant linear decrease occurred in the percentage of students who ate fruits and vegetables 5 or more times per day (24%–21%). <sup>129</sup> Milk is an important source of calcium for adolescents. <sup>130</sup> <sup>131</sup> Calcium is essential for forming and maintaining healthy bones and low calcium intake during the first two to three decades of life is an important risk factor in developing osteoporosis. <sup>132</sup> Although the recommended intake of calcium is 1,300 mg/day <sup>133</sup>, most adolescents consume far less. National data indicate that the average calcium intake per day among persons aged 12 to 19 years was 1125 mg/day (among

- Rolls BJ, Ello-Martin JA, Tohill BC. What can intervention studies tell us about the relationship between fruit and vegetable consumption and weight management. Nutrition Reviews 2004;62(1):1-17.
- 126 He K, Hu FB, Colditz GA, Manson JE, Willett WC, Liu S. Changes in intake of fruits and vegetables in relation to risk of obesity and weight gain among middle-aged women. International Journal of Obesity 2004;28:1569-1574.
- 127 Goss J, Grubbs L. Comparative analysis of body mass index, consumption of fruits and vegetables, smoking, and physical activity among Florida residents. Journal of Community Health Nursing 2005;22(1):37-46.
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- Eaton DK, Kann L, Kinchen S, et al. Youth Risk Behavior Surveillance -- United States, 2007. Morbidity and Mortality Weekly Report 2008:57(SS-4):1-131.
- 130 US Department of Health and Human Services and US Department of Agriculture: Dietary Guidelines for Americans 2005. Washington, DC, 2005. Available at http://www.healthierus.gov/dietaryguidelines/. Accessed June 5, 2008.
- Forshee RA, Anderson PA, Storey ML. Changes in calcium intake and association with beverage consumption and demographics: Comparing data form CSFII 1994-1996, 1998 and NHANES 1999-2002. Journal of the American College of Nutrition 2006;25(20):108-116.
- NIH Consensus Development on Optimal Calcium Intake. Optimal calcium intake. Journal of the American Medical Association 1994;272:1942-1948.
- 133 Institute of Medicine, Food and Nutrition Board. Dietary Reference Intakes for Calcium, Phosphorus, Magnesium, Vitamin D, and Fluoride. Washington, DC: National Academy Press; 1997

males) and 814 mg/day (among females).<sup>134</sup> In 2007, 14% of high school students nationwide had drunk three or more glasses per day of milk during the 7 days before the survey.<sup>135</sup> In recent years, soft drink consumption has significantly increased among children and adolescents. Among persons aged 2 to 18 years, soft drinks comprised 3% of the total daily calories consumed in 1977–1978 compared to 7% in 1999–2001.<sup>136</sup> Consumption of sugar-sweetened drinks, including soft drinks, appears to be associated with being at increased risk for overweight in children.<sup>137</sup> Nationwide in 2007, 34% of high school students had drunk a can, bottle, or glass of soda or pop (not including diet soda or diet pop) at least one time per day during the 7 days before the survey.<sup>138</sup>

A composite item for fruit and vegetable consumption was created by combining the six questions included in the survey. The composite item was created by averaging the daily intake in the past week so that fruits or vegetables include the following six items: fruits, 100% fruit juices, potatoes, carrots, green salad and other vegetables.

Figure 8.3: Combined Fruit and Vegetable Consumption, Five or More Servings per Day



- Overall, one in five (20.1%) high school students consumed five or more servings of fruits and vegetables per day over the preceding seven days. (Figure 8.3).
- A similar proportion of males (19.3%) and females (20.8%) reported daily consumption of five or more servings of fruits and vegetables.
- Older students (24.5%) were slightly more likely than 16-17 year olds (18.7%) or those 15 or younger (20.1%) to consume five or more servings of fruits and vegetables per day.
- ▶ Black students (28.0%) were more likely than White (18.1%) or Hispanic (16.9%) students to report they had consumed five or more servings of fruits and vegetables per day over the past seven days.

<sup>134</sup> Forshee RA, Anderson PA, Storey ML. Changes in calcium intake and association with beverage consumption and demographics: Comparing data form CSFII 1994-1996, 1998 and NHANES 1999-2002. Journal of the American College of Nutrition 2006;25(20):108-116.

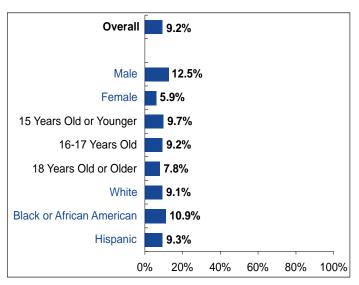
Eaton DK, Kann L, Kinchen S, et al. Youth Risk Behavior Surveillance -- United States, 2007. Morbidity and Mortality Weekly Report 2008:57(SS-4):1-131.

Nielsen SJ, Popkin BS. Changes in beverage intake between 1977 and 2001. American Journal of Preventive Medicine 2004;27(3):205-210.

Vartanian LR, Schwartz MB, Brownell KD. Effects of Soft Drink Consumption on Nutrition and Health: A Systematic Review and Meta-Analysis. American Journal of Public Health, 2007;97(4):667 - 675.

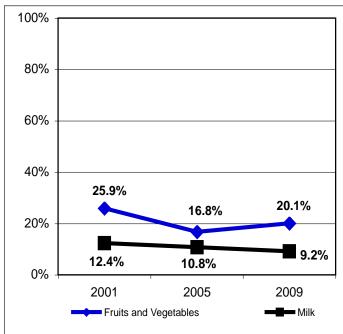
<sup>138</sup> Eaton DK, Kann L, Kinchen S, et al. Youth Risk Behavior Surveillance -- United States, 2007. Morbidity and Mortality Weekly Report 2008:57(SS-4):1-131.

Figure 8.4: Three or More Glasses of Milk Per Day, Past Seven Days



- Overall, about one in 10 students (9.2%) drank three or more glasses of milk per day during the past week though about one-fourth (23.3%) indicated not drinking any milk at all (Figure 8.4).
- A greater proportion of males (12.5%) than females (5.9%) had consumed three or more glasses of milk per day.
- There were no notable differences in milk consumption by age or race (7.8%-9.7% and 9.1%-10.9%, respectively).

Figure 8.5: Trends in Fruits, Vegetables and Milk Consumption: 2001, 2005, and 2009



- Fruit and vegetable consumption (5+ servings per day) increased to 20.1% in 2009 from 16.8% in 2005 after declining from 2001 levels (25.9%) (Figure 8.5).
- Milk consumption (3+ glasses per day) has shown a slight decline, ranging from a high of 12.4% in 2001 to a low of 9.2% in 2009.

Figure 8.6: Drank Soda/Pop One or More Times Per Day, Past Seven Days

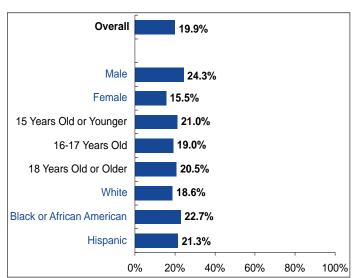
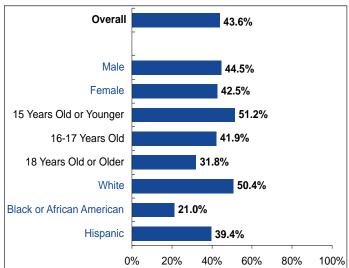
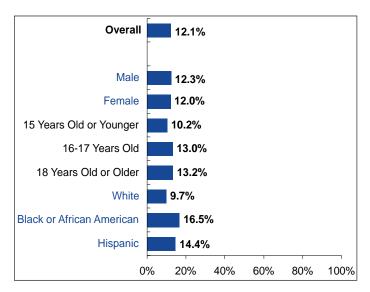


Figure 8.7: Ate Dinner with Parents/Guardians 5 or More Times, Past Seven Days



- Overall, one in five (19.9%) New Jersey high school students indicated that they drank soda/ pop one or more times per day in the past seven days (Figure 8.6).
- A greater proportion of males (24.3%) than females (15.5%) drank soda/pop one or more times per day in the past seven days.
- ► There was no notable difference in soda/pop consumption by age group (19.0%-21.0%) or by race/ethnicity (18.6%-22.7%).
- More than four in ten (43.6%) New Jersey high school students ate dinner with parents/guardians on five or more of the past seven days, including 20.7% who ate together on all seven days (Figure 8.7). Two in ten students (19.0%) ate with parents/guardians on none of the past seven days.
- There were no notable differences in number of weekly family meals by gender.
- The percentage of students who ate with parents/ guardians on five or more of the previous seven days decreased with age. Half (51.2%) of students 15 or younger ate with parent/guardians five or more days, compared with 41.9% of those 16-17 and 31.8% of those 18 or older.
- ► Half (50.4%) of White students are together five or more days a week compared with 39.4% of Hispanic and 21.0% of Black students.

Figure 8.8: Gone Hungry Sometimes, Most of the Time, Always Because Not Enough Food in the House, Past 30 days



- Overall, 12.1% of New Jersey high school students reported they had gone hungry sometimes, most of the time, or always in the past 30 days because there was not enough food in their home (Figure 8.8).
- There was no substantial difference by gender or age.
- White students (9.7%) were least likely and Black students (16.5%) most likely to say they had gone hungry sometimes, most of the time or always in the last 30 days because there was not enough food in their home.

### Health Conditions

Approximately 9.9 million (14%) U.S. children <18 years have been diagnosed with asthma at some time in their lives, and 6.8 million (9%) currently have asthma. <sup>139</sup> In 2004, children made 7 million visits to doctors' offices and hospital outpatient departments, 754,000 visits to hospital emergency departments, and had 198,000 hospitalizations due to asthma. <sup>140</sup> In 2003, an estimated 12.8 million school days were lost due to asthma among school-aged children. <sup>141</sup> Among high school students nationwide, 20% had ever been told by a doctor or nurse that they had asthma. <sup>142</sup>

<sup>139</sup> Bloom B, Cohen RA. Summary Health Statistics for U.S. Children: National Health Interview Survey, 2006. National Center for Health Statistics. Vital Health Statistics 2007;10(234):4.

<sup>140</sup> Akinbami, Lara. Asthma prevalence, health care use, and mortality, 2003-2005. Hyattsville, MD: US Department of Health and Human Services, CDC, National Center for Health Statistics; 2007. Available at: http://www.cdc.gov/nchs/products/pubs/pubd/hestats/ashtma03-05/asthma03-05.htm. Accessed May 5, 2008.

<sup>141</sup> Akinbami, Lara. Asthma prevalence, health care use, and mortality, 2003-2005. Hyattsville, MD: US Department of Health and Human Services, CDC, National Center for Health Statistics; 2007. Available at: http://www.cdc.gov/nchs/products/pubs/pubd/hestats/ashtma03-05/asthma03-05.htm. Accessed May 5, 2008.

Eaton DK, Kann L, Kinchen S, et al. Youth Risk Behavior Surveillance—United States, 2007. Morbidity and Mortality Weekly Report 2008;57(SS-4):1-131.

Figure 8.9: Doctor or Nurse Confirmed Asthma

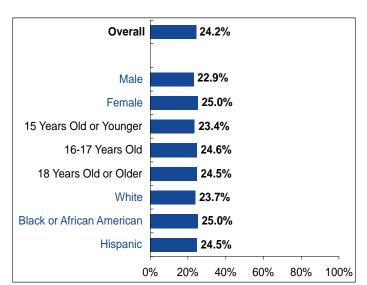
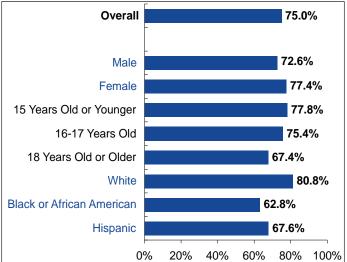
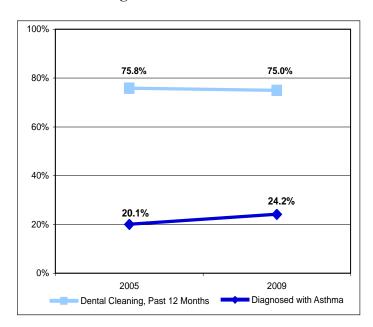


Figure 8.10: Dental Check-up, Past 12 Months



- ▶ Students were asked whether a doctor or nurse had ever told them that they have asthma. Overall, nearly one-fourth (24.2%) of New Jersey high school students had been diagnosed with asthma (Figure 8.9).
- Males (22.9%) and females (25.0%) were about equally likely to report being diagnosed with asthma.
- ▶ The frequency of asthma diagnoses did not vary by age (23.4%-24.6%) or race/ethnicity (23.7%-25.0%).
- Three fourths (75.0) of New Jersey high school students had been to a dentist for a check-up, exam, cleaning or other dental work within the past 12 months (Figure 8.10). Another 12.4% of students had been for a dental check-up, but it was between 1 and 2 years ago. More than one in ten students had either been to a dentist more than two years ago (5.3%), had never been to a dentist (1.8%), or were not sure when they had last been to the dentist.
- Females were more likely than males to have been to a dentist in the past year (77.4% vs. 72.6%).
- Students 18 or older were less likely than younger students to have had a dental check-up within the past year (67.4% vs. 75.4% for students 16-17 and 77.8% for students 15 or younger).
- ▶ White students (80.8%) were more likely than Hispanic (67.6%) or Black students (62.8%) to have been to the dentist within the past year.

Figure 8.11: Trends in Asthma Diagnoses and Dental Cleaning: 2005 and 2009



- ▶ In 2009, nearly one in four (24.2%) New Jersey high school students had been diagnosed with asthma by a doctor or nurse, as compared with one in five (20.1%) students in 2005 (Figure 8.11).
- Three fourths (75.0% in 2005 and 75.8% in 2009) of New Jersey high school students had been to a dentist for a check-up, exam, cleaning or other dental work within the past 12 months.

### **CHAPTER 9: PROTECTIVE FACTORS**

For the first time, the 2009 NJ Student Health Survey incorporated concepts from the risk and protective factor series of questions from the Communities That Care Youth Survey (CTCYS) instrument developed out of a multi-state study funded by the Center for Substance Abuse Prevention (CSAP). Prior research had shown that a number of constructs exist to adequately predict the initiation of substance use and anti-social behaviors (Coie et al., 1993; Durlak, 1998; Hawkins, Arthur, and Catalano, 1995; Hawkins, Catalano, and Miller, 1992; Kellam, Koretz, and Moscicki, 1999; Mrazek and Haggerty, 1994). 143 During the CSAP project it was determined that no existing instrument measured the necessary array of risk and protective factors needed to focus prevention programs across geographic areas and

143 Coie, J.D., Watt, N.F., West, S.G., Hawkins, J.D., Asarnow, J.R., Markman, H.J., Ramey, S.L., Shure, M.B., & Long, B. (1993). The Science Of Prevention. A Conceptual Framework And Some Directions For A National Research Program. *American Psychologist* 48 (10): 1013-22.

Durlak, J. A. (1998). Common Risk And Protective Factors In Successful Prevention Programs. *American Journal of Orthopsychiatry* 68 (4): 512-20.

Hawkins, J.D., Arthur, M.W., & Catalano, R.F. (1995). Preventing substance abuse. In *Crime and justice: Vol.* 19. Building A Safer Society: Strategic Approaches To Crime Prevention, edited by M. Tonry and D. Farrington, 343-427. Chicago: University of Chicago Press.

Hawkins, J.D., Catalano, R.F., & Miller, J.Y. (1992). Risk And Protective Factors For Alcohol And Other Drug Problems In Adolescence And Early Adulthood: Implications For Substance Abuse Prevention. *Psychological Bulletin* 112 (1): 64-105.

Kellam, S. G., D. Koretz, & E. K. Moscicki. 1999. Core Elements Of Developmental Epidemiologically Based Prevention Research. *American Journal of Community Psychology* 27 (4): 463-82.

Mrazek, P.J., Haggerty, R.J. eds., & Committee on Prevention of Mental Disorders, Institute of Medicine. (1994). *Reducing Risks For Mental Disorders: Frontiers For Prevention Intervention Research*. Washington, DC: National Academy Press. subpopulations (Arthur, Hawkins, Pollard, Catalano, & Baglioni, 2002). 144 The instrument includes risk and protective factors that show the strongest correlations to drug use, including feelings about school and their neighborhood; self-reported and peer use of tobacco, drugs, and alcohol; and the availability of such substances. The original CTCYS includes 333 items measuring 32 constructs, or risk and protective factors depending on whether behavior is influenced negatively or positively.

Since the development of the Communities That Care Youth Survey in 1992, the instrument has been revised and condensed into the Risk and Protective Factors Survey (RPF). The founder of Pride Surveys, Dr. Jack Pollard, one of the original developers of the CTCYS, shortened the original 12-page survey into a more manageable four pages. In all, the final four-page RPF survey included 121 items measuring 29 risk and protective factor constructs. 145

#### Risk and Protective Factor Scales

Risk factors are characteristics of the students' community, family, school, and peer relationships that predict the likelihood of experimentation with alcohol, tobacco, and other drugs and participation in antisocial behavior. Protective factors are characteristics of the students' school, and peer relationships that have been associated with reducing the likelihood of experimentation with alcohol, tobacco, and other drugs and antisocial behavior. Risk and protective factors are important for prevention planning. While one may not be able to eliminate the risk factors in a students' environment, it is possible that risks may be mitigated and that the number of protective factors can be increased.

<sup>144</sup> Arthur, M.W., Hawkins, J.D., Pollard, J.A., Catalano, R.F., & Baglioni, A.J. (2002). Measuring Risk And Protective Factors For Substance Use, Delinquency, And Other Adolescent Problem Behaviors: The Communities That Care Youth Survey. *Evaluation Review*, 26, 575-601. Retrieved April 7, 2008, from <a href="http://www.pridesurveys.com/supportfiles/CTC">http://www.pridesurveys.com/supportfiles/CTC</a> reliability.pdf.

Pollard, Jack. Rationale for Inclusion/Exclusion of Risk and Protective Factor Items in the Development of the Pride Surveys Risk and Protective Factor Survey from <a href="http://www.pridesurveys.com/">http://www.pridesurveys.com/</a>.

For the first time, the NJ Student Health Survey included questions from the risk and protective factor series. Because of practical considerations of survey administration and limits to the number of questions that could be added, only questions related to two overarching protective domains - peer individual and school - were included in the survey. These two domains include five protective factors. Multiple survey items comprise each of these factors and a minimum number of questions must be answered in order to calculate a score for each factor and domain. Scores on these factors have been standardized to a 0 to 1 scale. Standardization is commonly achieved by subtracting the lowest outcome value from all values in an array, which forces the low value to equal 0. Then, all values in the array are divided by the upper end of the adjusted array range. This second step forces the high value to equal 1. Each question was scored so that the most positive behaviors received the highest score. For example, if a student indicated that she had done community service 40 or more times in the last year, then this would be scored as a 1.

The higher the score on a protective factor, the more likely the student is to be 'protected' from negative behaviors, such as using drugs and participating in antisocial activities. These scores represent characteristics in the students' environment that will protect them against risk factors and substance use and participation in antisocial behavior. For example, a student who lives in a community where drug use is acceptable may be less likely to use drugs if they have friends who have made commitments to stay drug-free or are rewarded for positive behavior at school.

The first section of this chapter describes the five protective factors, their specific survey items, and their respective mean scores. The second section provides the average protective factor scores for the State. The final section shows graphs of the relationships between the average protective domain scores and cigarette, alcohol and marijuana use along with sexual behavior and weapons and violence. All of the survey items that define the factors are presented with the mean score for the factor.

Table 9.1 presents the mean scores for all 5 protective factors, by domain. In addition, each domain mean score is shown.

**Table 9.1: Summary of All Protective Factors by Domain** 

Domain	Protective Factors	(n)	Mean	
Da a a la dividual	Interaction with Prosocial Peers	1730	0.50	
Peer-Individual (mean=0.40)	Peer Rewards for Prosocial Involvement	1771	0.44	
	Prosocial Involvement	1732	0.27	
School	School Opportunities for Prosocial Involvement		0.59	
(mean=0.56)	School Rewards for Prosocial Involvement	1738	0.53	
Statewide Protective Factor Average			0.47	

### Statewide Protective Factors

This section presents each of the protective domains and their respective protective factors, including individual questions from the survey. As mentioned previously, protective factors are characteristics of the students' school, and peer relationships that have been associated with reducing the likelihood of experimentation with alcohol, tobacco, and other drugs and antisocial behavior by buffering the effects of risks in their environment. Each question was scored so that the most positive behaviors received the highest score. For example, if a student indicated that they had done community service 40 or more times in the last year, then this would be scored as a 1. Conversely, a student who indicated having never done community service would receive a score of 0. Mean scores for each factor were then computed on a scale of 0 to 1, with a higher score indicating that the student has a greater chance of being protected by that factor. Therefore, the higher the mean score for each factor, the more likely that students are participating in positive protective activities.

#### Peer-Individual Domain Protective Factors

The Peer-Individual Domain Protective Factor refers to youths' attitudes about school, their participation in extra-curricular activities, whether or not their friends engage in prosocial behaviors, and if there are peer rewards for prosocial behavior. The Peer-Individual Domain Protective Factor scores by demographic subgroup are presented in Table 9.2.

#### Interaction with Prosocial Peers

- ► Think of your four best friends (...). In the past year (...) how many of your best friends have: participated in clubs, organizations or activities at school.
- ► Think of your four best friends (...). In the past year (...) how many of your best friends have: made a commitment to stay drug-free.
- ► Think of your four best friends (...). In the past year (...) how many of your best friends have: liked school.

- Think of your four best friends (...). In the past year (...) how many of your best friends have: regularly attended religious services.
- Think of your four best friends (...). In the past year (...) how many of your best friends have: tried to do well in school.

Higher mean scores on the Interaction with Prosocial Peers factor indicate that the group has a greater chance for being protected from using drugs and participating in antisocial behaviors because more of their friends have engaged in prosocial behavior. The overall mean was 0.50. The mean for students 15 and younger was higher than the mean for students 18 and over (0.54 and 0.43, respectively), indicating that the friends of the younger students have participated in more positive behaviors than the friends of older students. A smaller difference is seen between males and females with females slightly more likely to have friends who participate in more positive behaviors (0.52 vs. 0.47). By racial/ethnic group, Hispanic students had the lowest mean (0.44) compared to Whites, Blacks and Other students (ranging from .50 to .52).

#### Prosocial Involvement

- ► How many times in the past year (...) have you: participated in clubs, organizations or activities at school.
- How many times in the past year (...) have you: done extra work on your own for school.
- ► How many times in the past year (...) have you: volunteered to do community service.

Higher mean scores on the Prosocial Involvement factor indicate that the group has a greater chance for being protected from using drugs and participating in antisocial behaviors because of more frequent involvement with prosocial activities. The overall mean was 0.27. Sixteen and 17 year old students had a slightly higher mean score than older or younger students (0.30 vs. 0.25); and females had a similar slightly higher score than males (0.30 vs. 0.25). A larger difference was evident across racial groups where Hispanic students (.20) and Black students (.25) had the lowest mean score compared to Whites (.30) and those of other racial/ethnic backgrounds (.35).

### Peer Rewards for Prosocial Involvement

- What are the chances you would be seen as cool if you: worked hard at school?
- What are the chances you would be seen as cool if you: defended someone who was being verbally abused at school?
- What are the chances you would be seen as cool if you: regularly volunteered to do community service?
- What are the chances you would be seen as cool if you: made a commitment to stay drug-free?

Higher mean scores on the Peer Rewards for Prosocial Involvement factor indicate that the group has a greater chance for being protected from using drugs and participating in antisocial behaviors because they perceive peer rewards for participation in prosocial activities. The overall mean was 0.44. Younger students had a slightly higher mean score than those 16-17 or 18 and over (0.48 vs. 0.42) indicating that more younger students than older students believe they would be seen as cool if they participated in pro-social activities. The racial/ethnic groups with the lowest mean scores were Black students (0.35) while all other racial/ethnic groups were between 0.44 and 0.47. There was no difference in this factor by gender.

Table 9.2: Peer-Individual Domain Protective Factor Demographics – Interaction with Prosocial Peers, Prosocial Involvement, and Rewards for Prosocial Involvement

		Interaction with Prosocial Peers		Prosocial Involvement		Peer Rewards for Prosocial Involvement	
		(n)	Mean	(n)	Mean	(n)	Mean
NJ High School Students		1730	0.50	1732	0.27	1721	0.44
	Age						
	15 or younger	545	0.54	544	0.25	541	0.48
	16-17	956	0.49	958	0.30	952	0.42
	18 or older	229	0.43	230	0.25	228	0.42
Sex							
	Male	755	0.47	755	0.25	751	0.45
	Female	972	0.52	973	0.30	966	0.43
Ethnicity					,		,
	White	998	0.50	995	0.30	989	0.47
	African-American	210	0.52	211	0.25	209	0.35
	Hispanic	332	0.44	334	0.20	331	0.44
	Other	171	0.52	173	0.35	173	0.45

#### School Domain Protective Factors

The School Domain Protective Factor is defined by students who have positive relationships with teachers; have opportunities to make decisions in class; and/or receive rewards, recognition, or praise for such success both in and out of school. The School Domain Protective Factor scores by demographic subgroup are presented in Table 9.3.

### School Opportunities for Prosocial Involvement

- ► In my school, students have lots of chances to help decide things like class activities and rules.
- Teachers ask me to work on special classroom projects.
- There are lots of chances for students in my school to get involved in sports, clubs, and other school activities outside of class.
- There are lots of chances for students in my school to talk with a teacher one-on-one.
- There are lots of chances to be part of class discussions or activities.

Higher mean scores on the School Opportunities for Prosocial Involvement factor indicate that the group has a greater chance for being protected from using drugs and participating in antisocial behaviors because are school opportunities for prosocial involvement. The overall mean was 0.59. There were no notable differences by age or gender and little variation by race/ethnicity.

### School Rewards for Prosocial Involvement

- My teacher notices when I am doing a good job and lets me know about it.
- ► I feel safe at my school.
- ► The school lets my parents know when I have done something well.
- My teachers praise me when I work hard in school.

Higher mean scores on the School Rewards for Prosocial Involvement factor indicate that the group has a greater chance for being protected from using drugs and participating in antisocial behaviors because there are school rewards for prosocial involvement. The overall mean was 0.53. There was no difference by age or by gender and only small differences across racial/ethnic groups. Hispanic students had the lowest mean score (0.50) and students of other racial/ethnic backgrounds had the highest mean on this factor (0.55).

Table 9.3: School Domain Protective Factor Demographics – School Opportunities for Prosocial Involvement and School Rewards for Prosocial Involvement

	School Opportunities for Prosocial Involvement		School Rewards for Prosocial Involvement	
N I High Cohool	(n)	Mean	(n)	Mean
NJ High School Students	1740	0.59	1738	0.53
Age				
15 or younger	550	0.59	550	0.53
16-17	960	0.59	960	0.53
18 or older	230	0.59	228	0.52
Sex				
Male	762	0.59	761	0.53
Female	974	0.60	973	0.54
Ethnicity				
White	1001	0.60	1000	0.54
African-American	210	0.59	210	0.53
Hispanic	335	0.56	335	0.50
Other	175	0.59	174	0.55

# Statewide Protective Factor Averages

Table 9.4 presents the average score for all five protective factors. Overall, little variation is observed between demographic subgroups.

Average of all Protective Factors: Higher mean scores indicate that the group has a greater chance for being protected from using drugs and participating in antisocial behaviors. The overall mean was 0.47. There was little or no difference in mean scores for the overall protective factor by age, gender, or race/ethnicity. For gender, the mean score for male and female students was almost identical (0.46 versus 0.48); among age groups, scores ranged from .44 for 18 and older to .48 for 15 and younger; and among race/ethnicity groups, the range was from .43 for Hispanics to .49 for those of other racial/ethnic backgrounds.

Table 9.4: Average of the Protective Factors by Demographic Subgroups

		Protective Factors		
		(n)	Mean	
NJ High School Students		1730	0.47	
Age				
	15 or younger	544	0.48	
	16-17	957	0.47	
	18 or older	229	0.44	
Sex			l.	
	Male	754	0.46	
	Female	972	0.48	
Ethni	city		No.	
	White	994	0.48	
	African-American	210	0.45	
	Hispanic	334	0.43	
	Other	173	0.49	

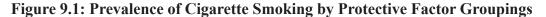
# Impact of Average Protective Factor Score on Substance Use

In order to better interpret the protective factor mean scores, student protective scores were divided into four categories – *very low, low, high*, and *very high*. These categories were based on a normal distribution of scores, such that approximately 68% of the scores are within one standard deviation of the mean. Protective categories were determined by examining the mean and standard deviations of the average protective factor scores (0.47). Each quartile division of the following graphs was created using standard deviations. The *low* division represents one standard deviation below the mean while the *high* division represents scores one standard deviation above the mean. The *very low* division represents scores more than one standard

deviation below the mean. Similarly, the *very high* division includes scores more than one standard deviation above the mean.

The relationship between average protective factor score and substance use is illustrated in Figures 1 through 5 below. It is important to note that these are inverse relationships. In summary, as the protective factor scores increase, patterns related to substance use and other risk behaviors should decrease.

As shown in Figure 9.1, as protective scores increase, lifetime and past 30 day use of tobacco decreases significantly. Increases in protective scores result in decreases of tobacco use at all levels of risk and for all time periods. However, slightly larger decreases in lifetime tobacco use are seen as protective scores increase from *very low* to *low*.



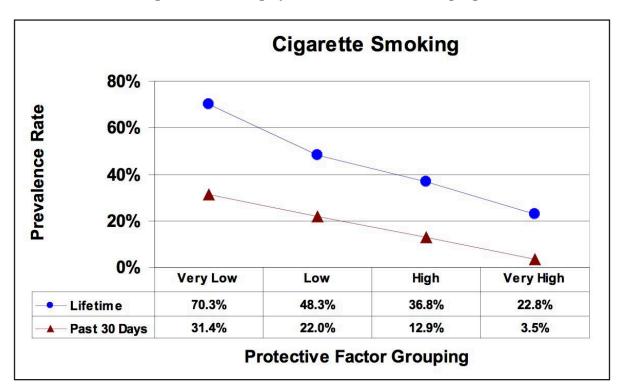
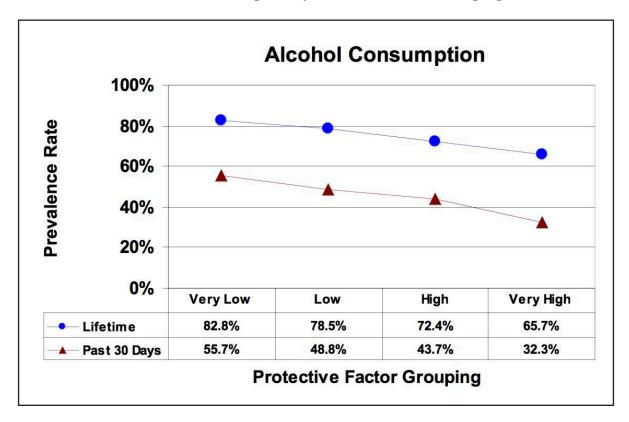


Figure 9.2: Prevalence of Alcohol Consumption by Protective Factor Groupings



As shown in Figure 9.2, as protective scores increase, alcohol consumption decreases though this trend is not as significant as with tobacco use. Even among students with *very high* protective scores, almost two-thirds of these students (65.7%) still consumed alcohol in their lifetime. This may indicate that adolescents are

likely to experiment with alcohol even with an arsenal of protective factors. There is a moderate change in lifetime alcohol use as protective factors increase – a total of 17.1% compared to the 47.5% difference for lifetime tobacco use.

Figure 9.3: Prevalence of Marijuana Use by Protective Factor Groupings

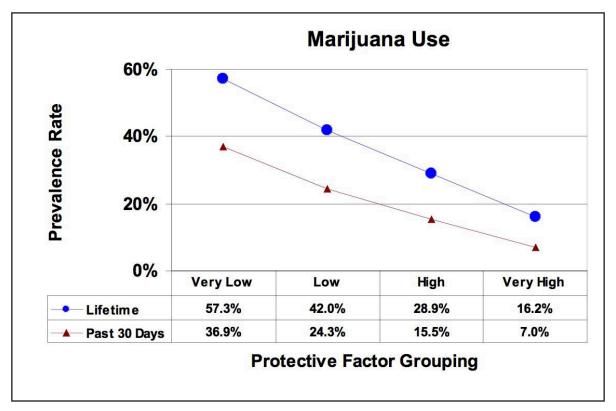


Figure 9.3 indicates that as protective scores increase, use of marijuana decreases significantly. Notably, fifteen percent (16.2%) of students with *very high* protective scores has used marijuana in their lifetime, as compared to over half (57.3%) of students with *very low* protective scores. Change in prevalence rates is fairly similar

between each level of risk, indicating that increasing protective scores at all levels has roughly the same effect on decreasing use of marijuana. This pattern is similar for recent marijuana use. The change in lifetime marijuana use as protective factors increase is 41.1% - mirroring the difference for lifetime tobacco use.

Figure 9.4: Prevalence of Selected Sexual Behaviors by Protective Factor Groupings

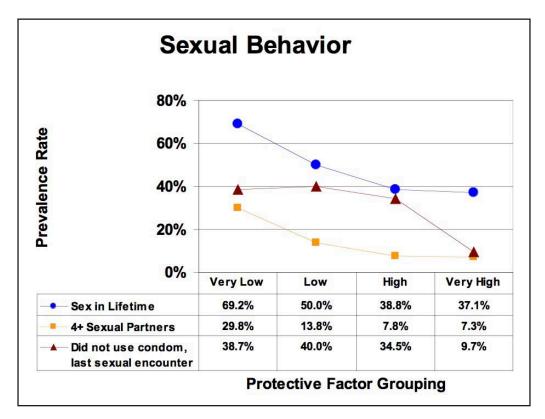


Figure 9.4 reveals a similar pattern related to sexually behavior. As protective scores increase, students are less likely to have sex in their lifetime or have 4 or more sex partners in their lifetime. For both behaviors, the greatest change occurs between students with *very low* and *low* protective scores (69.2% vs. 50.0%; and 29.8% to 13.8% respectively).

The story is different for condom use. Among those students with *very low* to *high* protective factors, about 35% to 40% report never using a condom the last time they had sex. Conversely, among students in the *very high* protective group, only 9.7% report not using a condom. Hence, while this group of students is less likely to have had sex, they are most likely to use a condom if they do. (It should be noted that the sample size falls to 58 students for student having sex in the very high protective factor group.)

Figure 9.5: Prevalence of Weapons and Violence by Protective Factor Groupings

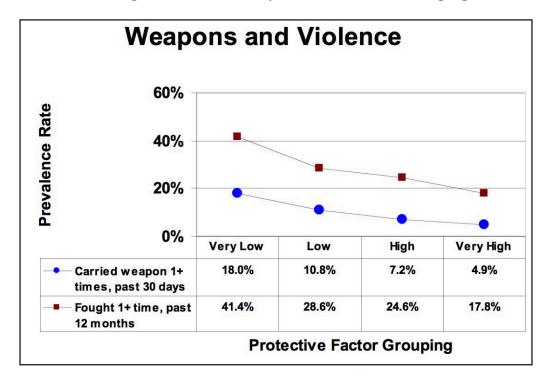


Figure 9.5 looks at weapons possession in the past 30 days and involvement in physical fighting in the past year. As protective scores increase, students are less likely to have either carried or weapon or fought. For weapons possession, 18.0% of students in the *very low* protective

factor have carried a weapon in the past 30 days. This percentage steadily declines across groups to 4.9% of those in the *very high* protective factor. For fighting, the greatest change in behavior occurs between students with *very low* and *low* protective scores (41.4% vs. 28.6%).

#### APPENDIX A: 2009 New Jersey Student Health Survey - Frequency Distributions

#### Student Health Survey: High School

Frequency distributions included in this Appendix are based on survey of a random sample of 1,756 New Jersey high school students, conducted in the spring of 2009. CDC weighted the results by age, gender, and race so that they represent the entire New Jersey high school population. Percentages in the tables below are based on these weighted results.

#### Q1 How old are you?

		Frequency	Valid Percent
Valid	1 12 years old or younger	450	.1
	2 13 years old	646	.2
	3 14 years old	41103	10.1
	4 15 years old	95016	23.3
	5 16 years old	103628	25.4
	6 17 years old	105225	25.8
	7 18 years old or older	61131	15.0
	Total	407199	100.0

#### Q2 What is your sex?

		Frequency	Valid Percent
Valid	1 Female	201862	49.7
	2 Male	204304	50.3
	Total	406166	100.0
Missing	System	1033	
Total		407199	

#### Q3 In what grade are you?

		Frequency	Valid Percent
Valid	1 9th grade	106912	26.4
	2 10th grade	102462	25.3
	3 11th grade	99080	24.5
	4 12th grade	95548	23.6
	5 Ungraded or other grade	600	.1
	Total	404602	100.0
Missing	System	2597	
Total		407199	

#### Q4 Are you Hispanic or Latino?

		Frequency	Valid Percent
Valid	1 Yes	69577	17.2
	2 No	335711	82.8
	Total	405287	100.0
Missing	System	1912	
Total		407199	

#### Q5 What is your race?

		Frequency	Valid Percent
Valid	1 Am Indian/Alaska Native	3156	.8
	2 Asian	16792	4.2
	3 Black/African American	66686	16.5
	4 Native Hawaiian/ Other PI	1736	.4
	5 White	234549	58.2
	6 Hispanic/Latino	30443	7.6
	7 Multiple Hispanic	39134	9.7
	8 Multiple Non- Hispanic	10481	2.6
	Total	402976	100.0
Missing	System	4223	
Total		407199	

#### Q6 How tall are you without your shoes on?

		Frequency	Valid Percent
Valid	1.00 Under 5 feet	16949	4.3
	2.00 5 ft - 5 ft 3 in	67247	17.3
	3.00 5 ft 4 in - 5 ft 6 in	109083	28.0
	4.00 5 ft 7 in - 5 ft 9 in	103104	26.5
	5.00 5 ft 10 in - 6 ft	64836	16.6
	6.00 6 ft - 6 ft 3 in	25860	6.6
	7.00 Over 6 ft 3 in	2658	.7
	Total	389737	100.0
Missing	System	17462	
Total		407199	

#### Q7 How much do you weigh without your shoes on?

		Frequency	Valid Percent
Valid	1.00 Under 110 lbs	28730	7.4
	2.00 110 to 125 lbs	85537	21.9
	3.00 125 to 140 lbs	93808	24.0
	4.00 141 to 155 lbs	68115	17.4
	5.00 156 to 170 lbs	40630	10.4
	6.00 171 to 185 lbs	29531	7.6
	7.00 186 to 200 lbs	16865	4.3
	8.00 201 to 220 lbs	16237	4.2
	9.00 Over 220 lbs	11144	2.9
	Total	390597	100.0
Missing	System	16602	
Total		407199	

#### Q8 During the past 12 months, how would you describe your grades in school?

		Frequency	Valid Percent
Valid	1 Mostly A's	121907	30.1
	2 Mostly B's	177675	43.8
	3 Mostly C's	75702	18.7
	4 Mostly D's	13347	3.3
	5 Mostly F's	2030	.5
	6 None of these grades	2447	.6
	7 Not sure	12503	3.1
	Total	405612	100.0
Missing	System	1587	
Total		407199	

#### Q9 How often do you wear a seat belt when riding in a car driven by someone else?

		Frequency	Valid Percent
Valid	1 Never	10228	2.5
	2 Rarely	23191	5.7
	3 Sometimes	55935	13.8
	4 Most of the time	134334	33.0
	5 Always	182891	45.0
	Total	406580	100.0
Missing	System	619	
Total		407199	

## Q10 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

		Frequency	Valid Percent
Valid	1 0 times	312590	77.1
	2 1 time	42402	10.5
	3 2 or 3 times	32357	8.0
	4 4 or 5 times	4884	1.2
	5 6 or more times	13260	3.3
	Total	405492	100.0
Missing	System	1707	
Total		407199	

## Q11 During the past 30 days, how many times did you drive a car or other vehicle when you had been drinking alcohol?

		Frequency	Valid Percent
Valid	1 0 times	371258	92.3
	2 1 time	15198	3.8
	3 2 or 3 times	9175	2.3
	4 4 or 5 times	3147	.8
	5 6 or more times	3280	.8
	Total	402058	100.0
Missing	System	5141	
Total		407199	

#### Q12 During the past 30 days, on how many days did you carry a weapon such as a gun, knife, or club?

		Frequency	Valid Percent
Valid	1 0 days	363130	90.4
	2 1 day	11769	2.9
	3 2 or 3 days	9173	2.3
	4 4 or 5 days	2475	.6
	5 6 or more days	15096	3.8
	Total	401643	100.0
Missing	System	5556	
Total		407199	

#### Q13 During the past 30 days, on how many days did you carry a gun?

		Frequency	Valid Percent
Valid	1 0 days	395249	98.2
	2 1 day	4623	1.1
	3 2 or 3 days	1239	.3
	4 4 or 5 days	349	.1
	5 6 or more days	1094	.3
	Total	402554	100.0
Missing	System	4645	
Total		407199	

## Q14 During the past 30 days, on how many days did you carry a weapon such as a gun, knife, or club on school property?

		Frequency	Valid Percent
Valid	1 0 days	391849	96.9
	2 1 day	4168	1.0
	3 2 or 3 days	1653	.4
	4 4 or 5 days	424	.1
	5 6 or more days	6455	1.6
	Total	404549	100.0
Missing	System	2650	
Total		407199	

## Q15 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?

		Frequency	Valid Percent
Valid	1 0 days	384833	94.8
	2 1 day	12327	3.0
	3 2 or 3 days	5240	1.3
	4 4 or 5 days	927	.2
	5 6 or more days	2748	.7
	Total	406075	100.0
Missing	System	1124	
Total		407199	

Q16 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?

		Frequency	Valid Percent
Valid	1 0 times	378152	93.4
	2 1 time	13500	3.3
	3 2 or 3 times	6827	1.7
	4 4 or 5 times	1589	.4
	5 6 or 7 times	1071	.3
	6 8 or 9 times	591	.1
	7 10 or 11 times	476	.1
	8 12 or more times	2537	.6
	Total	404743	100.0
Missing	System	2456	
Total		407199	

## Q17 During the past 12 months, how many times were you in a physical fight?

		Frequency	Valid Percent
Valid	1 0 times	294900	72.5
	2 1 time	49318	12.1
	3 2 or 3 times	40880	10.1
	4 4 or 5 times	9899	2.4
	5 6 or 7 times	2349	.6
	6 8 or 9 times	1556	.4
	7 10 or 11 times	663	.2
	8 12 or more times	6956	1.7
	Total	406522	100.0
Missing	System	677	
Total		407199	

#### Q18 Have you ever been physically forced to have sexual intercourse when you did not want to?

		Frequency	Valid Percent
Valid	1 Yes	31282	7.7
	2 No	372919	92.3
	Total	404201	100.0
Missing	System	2998	
Total		407199	

#### Q19 During the past 12 months, how many times have you felt threatened or been injured as a result of gang activity?

		Frequency	Valid Percent
Valid	1 0 times	377837	93.2
	2 1 time	18211	4.5
	3 2 or 3 times	5116	1.3
	4 4 or 5 times	1530	.4
	5 6 or more times	2678	.7
	Total	405372	100.0
Missing	System	1827	
Total		407199	

### Q20 During the past 12 months, have you ever been bullied on school property?

		Frequency	Valid Percent
Valid	1 Yes	84187	20.7
	2 No	322103	79.3
	Total	406290	100.0
Missing	System	909	
Total		407199	

## Q21 During the past 12 months, have you ever been electronically bullied, such as through e-mail, chat rooms, instant messaging, Web sites, or text messaging?

		Frequency	Valid Percent
Valid	1 Yes	67450	16.6
	2 No	337994	83.4
	Total	405444	100.0
Missing	System	1755	
Total		407199	

#### Q22 Have you ever tried cigarette smoking, even one or two puffs?

		Frequency	Valid Percent
Valid	1 Yes	171239	42.8
	2 No	228479	57.2
	Total	399718	100.0
Missing	System	7481	
Total		407199	

#### Q23 How old were you when you smoked a whole cigarette for the first time?

		Frequency	Valid Percent
Valid	1 Never smoked a cigarette	273494	67.9
	2 8 years old or younger	8927	2.2
	3 9 or 10 years old	6077	1.5
	4 11 or 12 years old	12556	3.1
	5 13 or 14 years old	46449	11.5
	6 15 or 16 years old	42330	10.5
	7 17 years old or older	12767	3.2
	Total	402600	100.0
Missing	System	4599	
Total		407199	

### Q24 During the past 30 days, on how many days did you smoke cigarettes?

		Frequency	Valid Percent
Valid	1 0 days	330104	83.0
	2 1 or 2 days	18551	4.7
	3 3 to 5 days	11380	2.9
	4 6 to 9 days	8414	2.1
	5 10 to 19 days	7485	1.9
	6 20 to 29 days	6546	1.6
	7 All 30 days	15196	3.8
	Total	397676	100.0
Missing	System	9523	
Total		407199	

#### Q25 During the past 30 days, on the days you smoked, how many cigarettes did you smoke per day?

		Frequency	Valid Percent
Valid	1 Did not smoke cigarettes	329502	83.2
	2 Less than 1 cigarette	17429	4.4
	3 1 cigarette	14245	3.6
	4 2 to 5 cigarettes	24680	6.2
	5 6 to 10 cigarettes	6122	1.5
	6 11 to 20 cigarettes	1380	.3
	7 More than 20 cigarettes	2636	.7
	Total	395994	100.0
Missing	System	11205	
Total		407199	

#### Q26 During your life, on how many days have you had at least one drink of alcohol?

		Frequency	Valid Percent
Valid	1 0 days	100735	25.4
	2 1 or 2 days	62965	15.9
	3 3 to 9 days	71702	18.1
	4 10 to 19 days	39764	10.0
	5 20 to 39 days	48297	12.2
	6 40 to 99 days	37077	9.3
	7 100 or more days	36145	9.1
	Total	396686	100.0
Missing	System	10513	
Total		407199	

#### Q27 How old were you when you had your first drink of alcohol other than a few sips?

		Frequency	Valid Percent
Valid	1 Never drank alcohol	113248	28.0
	2 8 years old or younger	17111	4.2
	3 9 or 10 years old	20374	5.0
	4 11 or 12 years old	35268	8.7
	5 13 or 14 years old	106234	26.3
	6 15 or 16 years old	98100	24.3
	7 17 years old or older	13736	3.4
	Total	404071	100.0
Missing	System	3128	
Total		407199	

#### Q28 During the past 30 days, on how many days did you have at least one drink of alcohol?

		Frequency	Valid Percent
Valid	1 0 days	202515	54.8
	2 1 or 2 days	80711	21.8
	3 3 to 5 days	44449	12.0
	4 6 to 9 days	25139	6.8
	5 10 to 19 days	14039	3.8
	6 20 to 29 days	1208	.3
	7 All 30 days	1784	.5
	Total	369845	100.0
Missing	System	37353	
Total		407199	
			<u> </u>

## Q29 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?

		Frequency	Valid Percent
Valid	1 0 days	292345	73.3
	2 1 day	40563	10.2
	3 2 days	25669	6.4
	4 3 to 5 days	24784	6.2
	5 6 to 9 days	11127	2.8
	6 10 to 19 days	2649	.7
	7 20 or more days	1486	.4
	Total	398623	100.0
Missing	System	8576	
Total		407199	

### Q30 During the past 30 days, how did you usually get the alcohol you drank?

		Frequency	Valid Percent
Valid	1 Did not drink in past 30 days	204909	54.0
	2 Bought in store	15077	4.0
	3 Bought in restaurant	2618	.7
	4 Bought at public event	1186	.3
	5 I gave someone money to buy	51202	13.5
	6 Someone gave it to me	56522	14.9
	7 Took from store/ family	14615	3.9
	8 I got it some other way	33293	8.8
	Total	379423	100.0
Missing	System	27776	
Total		407199	

#### Q31 During your life, how many times have you used marijuana?

		Frequency	Valid Percent
Valid	1 0 times	253375	64.7
	2 1 or 2 times	30699	7.8
	3 3 to 9 times	30795	7.9
	4 10 to 19 times	17834	4.6
	5 20 to 39 times	17073	4.4
	6 40 to 99 times	14266	3.6
	7 100 or more times	27804	7.1
	Total	391846	100.0
Missing	System	15353	
Total		407199	

### Q32 How old were you when you tried marijuana for the first time?

		Frequency	Valid Percent
Valid	1 Never tried marijuana	258727	64.4
	2 8 years old or younger	3422	.9
	3 9 or 10 years old	3709	.9
	4 11 or 12 years old	9522	2.4
	5 13 or 14 years old	52080	13.0
	6 15 or 16 years old	59528	14.8
	7 17 years old or older	14635	3.6
	Total	401623	100.0
Missing	System	5576	
Total		407199	

### Q33 During the past 30 days, how many times did you use marijuana?

		Frequency	Valid Percent
Valid	1 0 times	319553	79.7
	2 1 or 2 times	35392	8.8
	3 3 to 9 times	19377	4.8
	4 10 to 19 times	9942	2.5
	5 20 to 39 times	7163	1.8
	6 40 or more times	9270	2.3
	Total	400697	100.0
Missing	System	6502	
Total		407199	

#### Q34 During your life, how many times have you used any form of cocaine, including powder, crack, or freebase?

		Frequency	Valid Percent
Valid	1 0 times	379503	94.5
	2 1 or 2 times	10971	2.7
	3 3 to 9 times	4364	1.1
	4 10 to 19 times	1750	.4
	5 20 to 39 times	2088	.5
	6 40 or more times	2713	.7
	Total	401389	100.0
Missing	System	5810	
Total		407199	

## Q35 During your life, how many times have you sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high?

		Frequency	Valid Percent
Valid	1 0 times	365956	90.3
	2 1 or 2 times	25674	6.3
	3 3 to 9 times	6327	1.6
	4 10 to 19 times	2792	.7
	5 20 to 39 times	3387	.8
	6 40 or more times	1342	.3
	Total	405478	100.0
Missing	System	1721	
Total		407199	

### Q36 During your life, how many times have you used heroin (also called smack, junk, or China White)?

		Frequency	Valid Percent
Valid	1 0 times	396649	98.1
	2 1 or 2 times	2622	.6
	3 3 to 9 times	2808	.7
	4 10 to 19 times	204	.1
	5 20 to 39 times	441	.1
	6 40 or more times	1591	.4
	Total	404315	100.0
Missing	System	2884	
Total		407199	

## Q37 During your life, how many times have you used methamphetamines (also called speed, crystal, crank, or ice)?

		Frequency	Valid Percent
Valid	1 0 times	390458	97.7
	2 1 or 2 times	5535	1.4
	3 3 to 9 times	1097	.3
	4 10 to 19 times	1042	.3
	6 40 or more times	1345	.3
	Total	399476	100.0
Missing	System	7723	
Total		407199	

## Q38 During your life, how many times have you used ecstasy (also called MDMA)?

		Frequency	Valid Percent
Valid	1 0 times	386031	95.0
	2 1 or 2 times	10812	2.7
	3 3 to 9 times	5479	1.3
	4 10 to 19 times	1624	.4
	5 20 to 39 times	1734	.4
	6 40 or more times	866	.2
	Total	406546	100.0
Missing	System	653	
Total		407199	

Q39 During your life, how many times have you purposely used club drugs other than Ecstasy or MDMA (such as Rohypnol, GHB, ketamine, Soap, Georgia Home Boy, roofies, rope, Special K, or Vitamin K)?

		Frequency	Valid Percent
Valid	1 0 times	394352	96.9
	2 1 or 2 times	6140	1.5
	3 3 to 9 times	3574	.9
	4 10 to 19 times	2315	.6
	5 20 to 39 times	144	.0
	6 40 or more times	349	.1
	Total	406874	100.0
Missing	System	325	
Total		407199	

Q40 During your life, how many times have you used hallucinogenic drugs, such as LSD, acid, PCP, angel dust, mescaline, or mushrooms?

		Frequency	Valid Percent
Valid	1 0 times	383223	94.1
	2 1 or 2 times	16940	4.2
	3 3 to 9 times	4204	1.0
	4 10 to 19 times	488	.1
	5 20 to 39 times	683	.2
	6 40 or more times	1661	.4
	Total	407199	100.0

### Q41 During your life, how many times have you taken steroid pills or shots without a doctor's prescription?

		Frequency	Valid Percent
Valid	1 0 times	393754	96.7
	2 1 or 2 times	7370	1.8
	3 3 to 9 times	2268	.6
	4 10 to 19 times	636	.2
	5 20 to 39 times	1094	.3
	6 40 or more times	2076	.5
	Total	407199	100.0

### Q42 During your life, how many times have you used a needle to inject any illegal drug into your body?

		Frequency	Valid Percent
Valid	1 0 times	396281	97.5
	2 1 time	7233	1.8
	3 2 or more times	2892	.7
	Total	406407	100.0
Missing	System	792	
Total		407199	

### Q43 During the past 12 months, has anyone offered, sold, or given you an illegal drug on school property?

		Frequency	Valid Percent
Valid	1 Yes	130557	32.2
	2 No	274488	67.8
	Total	405046	100.0
Missing	System	2153	
Total		407199	

#### Q44 Have you ever had sexual intercourse?

		Frequency	Valid Percent
Valid	1 Yes	172972	46.3
	2 No	200742	53.7
	Total	373714	100.0
Missing	System	33485	
Total		407199	

#### Q45 How old were you when you had sexual intercourse for the first time?

		Frequency	Valid Percent
Valid	1 Never had sex	200483	53.5
	2 11 years old or younger	11556	3.1
	3 12 years old	3897	1.0
	4 13 years old	17130	4.6
	5 14 years old	37244	9.9
	6 15 years old	50698	13.5
	7 16 years old	37094	9.9
	8 17 years old or older	16316	4.4
	Total	374419	100.0
Missing	System	32780	
Total		407199	

#### Q46 During your life, with how many people have you had sexual intercourse?

		Frequency	Valid Percent
Valid	1 Never had sex	199946	53.6
	2 1 person	65073	17.5
	3 2 people	37328	10.0
	4 3 people	23759	6.4
	5 4 people	11756	3.2
	6 5 people	10319	2.8
	7 6 or more people	24627	6.6
	Total	372809	100.0
Missing	System	34390	
Total		407199	

#### Q47 During the past 3 months, with how many people did you have sexual intercourse?

		Frequency	Valid Percent
Valid	1 Never had sex	200483	53.6
	2 None during past 3 months	47609	12.7
	3 1 person	94173	25.2
	4 2 people	19159	5.1
	5 3 people	6560	1.8
	6 4 people	2359	.6
	7 5 people	1033	.3
	8 6 or more people	2425	.6
	Total	373800	100.0
Missing	System	33399	
Total		407199	

#### Q48 Did you drink alcohol or use drugs before you had sexual intercourse the last time?

		Frequency	Valid Percent
Valid	1 Never had sex	200483	53.8
	2 Yes	31958	8.6
	3 No	140393	37.7
	Total	372834	100.0
Missing	System	34365	
Total		407199	

#### Q49 The last time you had sexual intercourse, did you or your partner use a condom?

		Frequency	Valid Percent
Valid	1 Never had sex	199711	54.4
	2 Yes	115781	31.5
	3 No	51872	14.1
	Total	367364	100.0
Missing	System	39835	
Total		407199	

#### Q50 The last time you had sexual intercourse, what one method did you or your partner use to prevent pregnancy?

		Frequency	Valid Percent
Valid	1 Never had sex	200483	54.1
	2 No method was used	18506	5.0
	3 Birth control pills	25665	6.9
	4 Condoms	96039	25.9
	5 Depo-Provera	1404	.4
	6 Withdrawal	19352	5.2
	7 Some other method	4615	1.2
	8 Not sure	4255	1.1
	Total	370318	100.0
Missing	System	36881	
Total		407199	

### Q51 How many times have you been pregnant or gotten someone pregnant?

		Frequency	Valid Percent
Valid	1 0 times	378252	93.8
	2 1 time	16826	4.2
	3 2 or more times	4569	1.1
	4 Not sure	3711	.9
	Total	403358	100.0
Missing	System	3841	
Total		407199	

# Q52 Have you ever been tested for a sexually transmitted disease (STD) such as genital herpes, gonorrhea, chlamydia, syphilis, or genital warts?

		Frequency	Valid Percent
Valid	1 Yes	61295	15.2
	2 No	320157	79.5
	3 Not sure	21482	5.3
	Total	402934	100.0
Missing	System	4265	
Total		407199	

#### Q53 Have you ever been tested for HIV, the virus that causes AIDS?

		Frequency	Valid Percent
Valid	1 Yes	47155	11.7
	2 No	334583	82.9
	3 Not sure	22081	5.5
	Total	403820	100.0
Missing	System	3379	
Total		407199	

Q54 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.)

		Frequency	Valid Percent
Valid	1 Did not drink fruit juice	72582	17.9
	2 1 to 3 times	142296	35.2
	3 4 to 6 times	73189	18.1
	4 1 time per day	34915	8.6
	5 2 times per day	37894	9.4
	6 3 times per day	19589	4.8
	7 4 or more times per day	24139	6.0
	Total	404604	100.0
Missing	System	2595	
Total		407199	

#### Q55 During the past 7 days, how many times did you eat fruit? (Do not count fruit juice.)

		Frequency	Valid Percent
Valid	1 Did not eat fruit	47504	11.7
	2 1 to 3 times	155430	38.4
	3 4 to 6 times	77646	19.2
	4 1 time per day	42919	10.6
	5 2 times per day	44222	10.9
	6 3 times per day	17392	4.3
	7 4 or more times per day	19300	4.8
	Total	404414	100.0
Missing	System	2785	
Total		407199	

### Q56 During the past 7 days, how many times did you eat green salad?

		Frequency	Valid Percent
Valid	1 Did not eat green salad	123059	30.3
	2 1 to 3 times	178004	43.9
	3 4 to 6 times	53251	13.1
	4 1 time per day	36792	9.1
	5 2 times per day	6803	1.7
	6 3 times per day	2437	.6
	7 4 or more times per day	5516	1.4
	Total	405862	100.0
Missing	System	1337	
Total		407199	

## Q57 During the past 7 days, how many times did you eat potatoes? (Do not count french fries, fried potatoes, or potato chips.)

		Frequency	Valid Percent
Valid	1 Did not eat potatoes	142895	35.2
	2 1 to 3 times	208536	51.4
	3 4 to 6 times	36188	8.9
	4 1 time per day	9884	2.4
	5 2 times per day	2919	.7
	6 3 times per day	1725	.4
	7 4 or more times per day	3423	.8
	Total	405570	100.0
Missing	System	1628	
Total		407199	
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#### Q58 During the past 7 days, how many times did you eat carrots?

		Frequency	Valid Percent
Valid	1 Did not eat carrots	209001	51.6
	2 1 to 3 times	150473	37.1
	3 4 to 6 times	22253	5.5
	4 1 time per day	13764	3.4
	5 2 times per day	4453	1.1
	6 3 times per day	2083	.5
	7 4 or more times per day	3096	.8
	Total	405123	100.0
Missing	System	2076	
Total		407199	

Q59 During the past 7 days, how many times did you eat other vegetables? (Do not count green salad, potatoes, or carrots.)

		Frequency	Valid Percent
Valid	1 Did not eat other vegetables	64230	15.8
	2 1 to 3 times	159485	39.3
	3 4 to 6 times	92843	22.9
	4 1 time per day	51016	12.6
	5 2 times per day	19941	4.9
	6 3 times per day	6825	1.7
	7 4 or more times per day	11532	2.8
	Total	405873	100.0
Missing	System	1326	
Total		407199	

Q60 During the past 7 days, how many times did you drink a can, bottle, or glass of soda or pop, such as Coke, Pepsi, or Sprite? (Do not include diet soda or diet pop.)

		Frequency	Valid Percent
Valid	1 Did not drink soda or pop	104249	25.8
	2 1 to 3 times	149546	36.9
	3 4 to 6 times	70429	17.4
	4 1 time per day	25604	6.3
	5 2 times per day	22537	5.6
	6 3 times per day	12163	3.0
	7 4 or more times per day	20307	5.0
	Total	404835	100.0
Missing	System	2364	
Total		407199	

Q61 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.)

		Frequency	Valid Percent
Valid	1 Did not drink milk	93842	23.3
	2 1 to 3 glasses	98139	24.4
	3 4 to 6 glasses	66535	16.5
	4 1 glass per day	52854	13.1
	5 2 glasses per day	54359	13.5
	6 3 glasses per day	16071	4.0
	7 4 or more glasses per day	21004	5.2
	Total	402804	100.0
Missing	System	4395	
Total		407199	

Q62 During the past 7 days, on how many days did you and your parents or guardians eat dinner together?

		Frequency	Valid Percent
Valid	1 0 days	77126	19.0
	2 1 day	36655	9.0
	3 2 days	39018	9.6
	4 3 days	39927	9.8
	5 4 days	36212	8.9
	6 5 days	54371	13.4
	7 6 days	38344	9.5
	8 7 days	83915	20.7
	Total	405567	100.0
Missing	System	1632	
Total		407199	

Q63 During the past 30 days, how often did you go hungry because there was not enough food in your home?

		Frequency	Valid Percent
Valid	1 Never	289015	71.5
	2 Rarely	66139	16.4
	3 Sometimes	37381	9.3
	4 Most of the time	7252	1.8
	5 Always	4174	1.0
	Total	403962	100.0
Missing	System	3237	
Total		407199	

Q64 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 activities?

		Frequency	Valid Percent
Valid	1 0 days	39695	9.9
	2 1 day	28522	7.1
	3 2 days	33807	8.4
	4 3 days	49993	12.5
	5 4 days	34681	8.6
	6 5 days	54609	13.6
	7 6 days	41771	10.4
	8 7 days	118154	29.4
	Total	401233	100.0
Missing	System	5966	
Total		407199	

Q65 During the past 7 days, on how many days were you physically active for a total of at least 60 minutes per day? (Add up all the time you spent in any kind of physical activity that increased your heart rate and made you breathe hard some of the time.)

		Frequency	Valid Percent
Valid	1 0 days	74261	18.3
	2 1 day	39250	9.7
	3 2 days	41524	10.3
	4 3 days	45270	11.2
	5 4 days	36612	9.0
	6 5 days	43226	10.7
	7 6 days	38381	9.5
	8 7 days	86364	21.3
	Total	404888	100.0
Missing	System	2311	
Total		407199	

Q66 On an average school day, how many hours do you watch TV?

		Frequency	Valid Percent
Valid	1 No TV on average school day	32499	8.0
	2 Less than 1 hour per day	73295	18.1
	3 1 hour per day	69461	17.2
	4 2 hours per day	97378	24.1
	5 3 hours per day	63049	15.6
	6 4 hours per day	32932	8.1
	7 5 or more hours per day	35601	8.8
	Total	404216	100.0
Missing	System	2983	
Total		407199	

Q67 On an average school day, how many hours do you play video or computer games or use a computer for something that is not school work? (Include activities such as Nintendo, Game Boy, PlayStation, Xbox, computer games, and the Internet.)

		Frequency	Valid Percent
Valid	1 No playing video/ computer game	56127	13.9
	2 Less than 1 hour per day	72586	18.0
	3 1 hour per day	78815	19.6
	4 2 hours per day	79073	19.6
	5 3 hours per day	57230	14.2
	6 4 hours per day	25623	6.4
	7 5 or more hours per day	33505	8.3
	Total	402959	100.0
Missing	System	4240	
Total		407199	

Q68 During an average physical education (PE) class, how many minutes do you spend actually exercising or playing sports?

		Frequency	Valid Percent
Valid	1 I do not take PE	24525	6.1
	2 Less than 10 minutes	32155	8.0
	3 10 to 20 minutes	65502	16.2
	4 21 to 30 minutes	94580	23.4
	5 31 to 40 minutes	79216	19.6
	6 41 to 50 minutes	47819	11.8
	7 51 to 60 minutes	22397	5.5
	8 More than 60 minutes	38112	9.4
	Total	404307	100.0
Missing	System	2892	
Total		407199	

## Q69 During the past 12 months, on how many sports teams did you play? (Include any teams run by your school or community groups.)

		Frequency	Valid Percent
Valid	1 0 teams	151992	37.8
	2 1 team	98967	24.6
	3 2 teams	75269	18.7
	4 3 or more teams	75345	18.8
	Total	401573	100.0
Missing	System	5626	
Total		407199	

#### Q70 How do you usually get to school?

		Frequency	Valid Percent
Valid	1 In a car or other vehicle driven by yourself or someone else	207751	51.6
	2 In a school bus	120765	30.0
	3 By walking	48854	12.1
	4 By riding a bicycle	3052	.8
	5 On a public bus or train	18185	4.5
	6 On a skateboard, scooter, or roller blades	2141	.5
	7 Some other way	2026	.5
	Total	402773	100.0
Missing	System	4426	
Total		407199	

#### Q71 Have you ever been taught about AIDS or HIV infection in school?

		Frequency	Valid Percent
Valid	1 Yes	371304	91.9
	2 No	24480	6.1
	3 Not sure	8041	2.0
	Total	403825	100.0
Missing	System	3374	
Total		407199	

#### Q72 When was the last time you saw a dentist for a checkup, exam, teeth cleaning, or other dental work?

		Frequency	Valid Percent
Valid	1 During the past 12 months	303569	75.0
	2 Between 12 and 24 months ago	50316	12.4
	3 More than 24 months ago	21649	5.3
	4 Never	7218	1.8
	5 Not sure	22011	5.4
	Total	404764	100.0
Missing	System	2435	
Total		407199	

#### Q73 Has a doctor or nurse ever told you that you have asthma?

		Frequency	Valid Percent
Valid	1 Yes	97277	24.2
	2 No	292152	72.6
	3 Not sure	12953	3.2
	Total	402382	100.0
Missing	System	4817	
Total		407199	

#### Q74 Do you still have asthma?

		Frequency	Valid Percent
Valid	1 I have never had asthma	243719	60.4
	2 Yes	64761	16.0
	3 No	66577	16.5
	4 Not sure	28721	7.1
	Total	403779	100.0
Missing	System	3420	
Total		407199	

### Q75 In my school, students have lots of chances to help decide things like class activities and rules.

		Frequency	Valid Percent
Valid	1 NO!	111467	27.6
	2 no	146431	36.3
	3 yes	119907	29.7
	4 YES!	26122	6.5
	Total	403926	100.0
Missing	System	3273	
Total		407199	

### Q76 Teachers ask me to work on special classroom projects.

		Frequency	Valid Percent
Valid	1 NO!	58689	14.6
	2 no	195882	48.9
	3 yes	122516	30.6
	4 YES!	23762	5.9
	Total	400849	100.0
Missing	System	6350	
Total		407199	

## Q77 There are lots of chances for students in my school to get involved in sports, clubs, and other school activities outside of class.

		Frequency	Valid Percent
Valid	1 NO!	19910	4.9
	2 no	20550	5.1
	3 yes	152167	37.8
	4 YES!	210169	52.2
	Total	402796	100.0
Missing	System	4403	
Total		407199	

#### Q78 There are lots of chances for students in my school to Q81 I feel safe at my school. talk with a teacher one-on-one.

		Frequency	Valid Percent
Valid	1 NO!	24044	6.0
	2 no	55165	13.8
	3 yes	220989	55.1
	4 YES!	100677	25.1
	Total	400874	100.0
Missing	System	6325	
Total		407199	

#### Q79 There are lots of chances to be part of class discussions or activities.

		Frequency	Valid Percent
Valid	1 NO!	16146	4.0
	2 no	38962	9.7
	3 yes	244931	60.9
	4 YES!	102229	25.4
	Total	402267	100.0
Missing	System	4932	
Total		407199	

#### Q80 My teachers notice when I am doing a good job and let me know about it.

		Frequency	Valid Percent
Valid	1 NO!	29200	7.3
	2 no	89118	22.2
	3 yes	220613	54.9
	4 YES!	62804	15.6
	Total	401735	100.0
Missing	System	5464	
Total		407199	

		Frequency	Valid Percent
Valid	1 NO!	28722	7.2
	2 no	38457	9.6
	3 yes	226711	56.6
	4 YES!	106498	26.6
	Total	400388	100.0
Missing	System	6811	
Total		407199	

#### Q82 The school lets my parents know when I have done something well.

		Frequency	Valid Percent
Valid	1 NO!	100894	25.3
	2 no	178254	44.8
	3 yes	92950	23.3
	4 YES!	25983	6.5
	Total	398080	100.0
Missing	System	9119	
Total		407199	

#### Q83 My teachers praise me when I work hard in school.

		Frequency	Valid Percent
Valid	1 NO!	55628	14.0
	2 no	153447	38.5
	3 yes	149901	37.6
	4 YES!	39186	9.8
	Total	398162	100.0
Missing	System	9037	
Total		407199	

## Q84 During the past 12 months, how many of your best friends participated in clubs, organizations, or activities at school?

		Frequency	Valid Percent
Valid	1 None of my friends	53512	13.4
	2 1 of my friends	51161	12.8
	3 2 of my friends	63827	16.0
	4 3 of my friends	48053	12.0
	5 4 of my friends	182840	45.8
	Total	399393	100.0
Missing	System	7806	
Total		407199	

### Q85 During the past 12 months, how many of your best friends made a promise to stay drug-free?

		Frequency	Valid Percent
Valid	1 None of my friends	175860	44.1
	2 1 of my friends	59984	15.0
	3 2 of my friends	44320	11.1
	4 3 of my friends	28239	7.1
	5 4 of my friends	90721	22.7
	Total	399124	100.0
Missing	System	8075	
Total		407199	

### Q86 During the past 12 months, how many of your best friends liked school?

		Frequency	Valid Percent
Valid	1 None of my friends	177581	44.3
	2 1 of my friends	59292	14.8
	3 2 of my friends	54858	13.7
	4 3 of my friends	40479	10.1
	5 4 of my friends	68932	17.2
	Total	401141	100.0
Missing	System	6058	
Total		407199	

#### Q87 During the past 12 months, how many of your best friends regularly attended religious services?

		Frequency	Valid Percent
Valid	1 None of my friends	132694	33.2
	2 1 of my friends	110220	27.6
	3 2 of my friends	73313	18.4
	4 3 of my friends	35177	8.8
	5 4 of my friends	47940	12.0
	Total	399344	100.0
Missing	System	7855	
Total		407199	

#### Q88 During the past 12 months, how many of your best friends tried to do well in school?

		Frequency	Valid Percent
Valid	1 None of my friends	26059	6.6
	2 1 of my friends	35172	8.9
	3 2 of my friends	55045	13.9
	4 3 of my friends	68443	17.3
	5 4 of my friends	211934	53.4
	Total	396653	100.0
Missing	System	10546	
Total		407199	

### Q89 During the past 12 months, how many times did you participate in clubs, organizations, or activities at school?

		Frequency	Valid Percent
Valid	1 0 times	94111	23.5
	2 1 or 2 times	94129	23.5
	3 3 to 5 times	62585	15.6
	4 6 to 9 times	30647	7.6
	5 10 to 19 times	28854	7.2
	6 20 to 29 times	18009	4.5
	7 30 to 39 times	11352	2.8
	8 40 or more times	61135	15.3
	Total	400821	100.0
Missing	System	6378	
Total		407199	

#### Q90 During the past 12 months, how many times did you do extra work on your own for school?

		Frequency	Valid Percent
Valid	1 0 times	118017	29.5
	2 1 or 2 times	110783	27.7
	3 3 to 5 times	65312	16.4
	4 6 to 9 times	37236	9.3
	5 10 to 19 times	29278	7.3
	6 20 to 29 times	10389	2.6
	7 30 to 39 times	6868	1.7
	8 40 or more times	21545	5.4
	Total	399428	100.0
Missing	System	7771	
Total		407199	

### Q91 During the past 12 months, how many times did you volunteer to do community service?

		Frequency	Valid Percent
Valid	1 0 times	175731	44.4
	2 1 or 2 times	82242	20.8
	3 3 to 5 times	52067	13.2
	4 6 to 9 times	29525	7.5
	5 10 to 19 times	24769	6.3
	6 20 to 29 times	10525	2.7
	7 30 to 39 times	3159	.8
	8 40 or more times	17788	4.5
	Total	395806	100.0
Missing	System	11393	
Total		407199	

### Q92 What are the chances you would be seen as cool if you worked hard at school?

		Frequency	Valid Percent
Valid	1 Very good chance	77283	19.4
	2 Pretty good chance	99311	24.9
	3 Some chance	120527	30.2
	4 Little chance	62608	15.7
	5 No chance	38829	9.7
	Total	398558	100.0
Missing	System	8641	
Total		407199	

Q93 What are the chances you would be seen as cool if you defended someone who was being verbally abused at school?

		Frequency	Valid Percent
Valid	1 Very good chance	79127	19.9
	2 Pretty good chance	111189	27.9
	3 Some chance	125800	31.6
	4 Little chance	49827	12.5
	5 No chance	32497	8.2
	Total	398441	100.0
Missing	System	8758	
Total		407199	

Q94 What are the chances you would be seen as cool if you regularly volunteered to do community service?

		Frequency	Valid Percent
Valid	1 Very good chance	58167	14.6
	2 Pretty good chance	75124	18.9
	3 Some chance	128811	32.4
	4 Little chance	78771	19.8
	5 No chance	56312	14.2
	Total	397186	100.0
Missing	System	10013	
Total		407199	

Q95 What are the chances you would be seen as cool if you made a promise to stay drug-free?

		Frequency	Valid Percent
Valid	1 Very good chance	95537	24.1
	2 Pretty good chance	81108	20.5
	3 Some chance	108063	27.3
	4 Little chance	60223	15.2
	5 No chance	51075	12.9
	Total	396007	100.0
Missing	System	11192	
Total		407199	

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Reports on the survey can be downloaded at www.nj.gov/njded/students/yrbs/index.html

More information about the CDC survey and tools for comparing results from various locations can be found at

www.cdc.gov/nccdphp/dash/yrbs

Special requests for data should be directed to New Jersey Department of Education Division of Student Services Office of Educational Support Services PO Box 500, Trenton, NJ 08625-0500 (609)292-5935

http://www.state.nj.us/education

The Bloustein Center for Survey Research (BCSR) at the Edward J. Bloustein School of Planning and Public Policy, Rutgers, The State University of New Jersey, administered the survey, analyzed the findings and prepared this summary report. The interpretation of data, conclusions, and recommendations expressed in the report are those of the authors and may or may not represent the views of NJDOE or NJDHSS. The summary report and detailed report can be downloaded from the Web site of the New Jersey Department of Education and reproduced without restriction.

Comments concerning the survey and this report may be directed to the New Jersey Department of Education through the **Contact Us** button at the bottom of every page on the NJDOE Web site.

