

## New Jersey Student Health Survey 2007

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

## STUDY FJNDNE

Funding for the survey was provided by the New Jersey Department of Education through a cooperative agreement with the Centers for Disease Control and Prevention \# U87/CCU222666; the U.S. Department of Education Elementary and Secondary Education Act, as amended, (Title IV, Part A of No Child Left Behind Act) Safe and Drug-Free Schools and Communities grant awarded to the New Jersey Department of Education; and by the New Jersey Department of Health and Senior Services Comprehensive Tobacco Control Program.

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

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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 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.

## BACKGROUND

This brochure summarizes the findings of the 2007 New Jersey Student Health Survey of high school students. The New Jersey Department of Education (NJDOE) has conducted this survey among public high school students every other year since 1993. The findings help parents, schools and youth-serving agencies to maintain awareness of current trends among teens and provide measures on the impact of large-scale programs intended to influence teen behavior. The results are made available through printed and Web-based reports. This brochure and the full report can be downloaded at www.state. nj.us/education/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.

In 2007, the survey was conducted collaboratively between the NJDOE and the New Jersey Department of Health and Senior Services and administered by the Bloustein Center for Survey Research (BCSR) at Rutgers University. The instrument used for the 2007 New Jersey Student Health Survey drew questions largely from the core Youth Risk Behavior Survey (YRBS) instrument developed by CDC. The 88-item high school survey asked students to answer questions about their health-related behavior in six areas that are highly related to preventable illness and injury among young people: unintentional injuries (safety) and violence; use of tobacco; use of alcohol and drugs; sexual behaviors; dietary behaviors; and physical activity.

## SAMPLE AND PARTICIPATION

The survey was completed by 1,677 students in 29 New Jersey public high schools in the spring of 2007. Survey procedures were designed to protect the privacy of all students by allowing for anonymous and voluntary participation.

Documented parental consent was required. Overall, $85 \%$ of all sampled schools agreed to participate in the study (29 out of 34 ) and $61 \%$ of all sampled students supplied parental consent and completed the survey ( 1,677 of 2,729 ), yielding an overall response rate of $52 \%$ ( $85 \%$ X $61 \%=52 \%$ ). The CDC has established a combined participation rate of $60 \%$ as the minimum rate required to apply weights to data collected for the YRBS. Therefore, the CDC's weighting procedure could not be used for the 2007 high school data.

Since the 2007 NJSHS overall response rate did not meet the CDC's minimum rate of $60 \%$ required for applying weights to the data collected for the YRBS, the NJDOE requested that BCSR attempt to replicate the CDC weighting procedure.

Overall, the weighting procedure employed by BCSR does account for the student and school's probability of selection, as well as, the adjustment to match the state's demographic profile of students. The procedures used for weighting are a close replication of the CDC method. While an exact replication is impossible, since BCSR did not have access to all of CDC's statistical tools used in their weighting process, the resulting weighted percentages derived through this weighting process are a much better depiction of the state's student population than the data in an unweighted form.

## Sample and Participation (continued)

The weighted results represent all regular public school students in grades 9 through 12 in New Jersey and permit comparison of findings across points in time and different locations. The weighted demographic characteristics of the sample are included in Table 1. The other times a weightable sample was obtained in New Jersey were in 1995, 2001, and 2005. Therefore, the 2007 results in this brochure are contrasted with the results from these prior years. All references to "2007" in the figures of this brochure appear in italics to note that the 2007 results use an alternative weighting technique that is close, but not identical, to the CDC weighting procedure.

## USE OF COMPARISON STATISTICS

In presenting the results for the high school survey, this brochure makes comparisons among the proportions of students answering the same question in 1995, 2001, 2005, and 2007- the four years when the results of the sample were "weighted" or generalized to the population of all public high school students in the state. Neither statistical significance nor practical significance is stated or implied in these comparisons.

Percentages for the population of high school students cited are of course estimates based upon the sample statistics. The statements are intended to compare the percentages for the four years and characterize their relationship to one another. The presentation does not apply tests of statistical significance in order to compare the data from the three years. Due to the large sample sizes ( 2,799 in 1995, 2,142 in 2001, 1,495 in 2005, and 1,677 in 2007), small
differences, such as two to three percent, could be statistically significant but, because they are small, they may lack practical significance.Therefore,in tracking changes across years of the survey, the decision was made not to apply tests of significance because such an approach would lead some in the audience to interpret these small changes in behavior as major behavioral changes and, thereby, draw conclusions that may not be justified.

In a similar vein, failing to characterize a difference (e.g., as an increase or decrease) because it failed to reach a level indicating statistical significance would eliminate a description intended to provide the reader with context for the data.

With or without indicators of statistical significance, it is incumbent upon the reader to exercise judgment as to the real or practical significance of any differences cited. CDC analysis of the statistical significance of selected New Jersey and other state survey data are provided at the CDC Web site referenced earlier. Unlike the CDC analysis, the analysis in this summary report and in the full technical report of New Jersey's Student Health Survey places an emphasis on the practical significance of the findings.

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 2007 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.

## Table 1: Profile of Students in the 2007 New Jersey Student Health Survey

|  | Sample (n) | Sample \% | Weighted \% |
| :---: | :---: | :---: | :---: |
| Sex |  |  |  |
| Female | 885 | $52.9 \%$ | $49.6 \%$ |
| Male | 787 | $47.1 \%$ | $50.4 \%$ |
| Age | 145 | $8.7 \%$ | $9.1 \%$ |
| 13 Years Old or Younger | 7 | $0.4 \%$ | $0.4 \%$ |
| 14 Years Old | 419 | $25.1 \%$ | $28.0 \%$ |
| 15 Years Old | 410 | $24.5 \%$ | $25.1 \%$ |
| 16 Years Old | 400 | $23.9 \%$ | $21.6 \%$ |
| 17 Years Old | 290 | $17.4 \%$ | $15.8 \%$ |
| 18 Years Old or Older |  |  |  |


|  | Sample (n) | Sample \% | Weighted \% |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Grade | 409 | $24.5 \%$ | $27.3 \%$ |
| 10th | 391 | $23.5 \%$ | $26.3 \%$ |
| 11th | 432 | $25.9 \%$ | $23.9 \%$ |
| 12th | 434 | $26.0 \%$ | $22.5 \%$ |
| Ethnicity |  |  |  |
| Black | 210 | $12.8 \%$ | $15.7 \%$ |
| Hispanic/Latino | 260 | $15.8 \%$ | $15.3 \%$ |
| White | 1010 | $61.4 \%$ | $57.0 \%$ |
| All other races | 166 | $10.0 \%$ | $12.0 \%$ |

## PHYSICAL VIOLENCE

Rates of violence in 2007 were largely consistent with those in 2005 (Figure 1). The proportion of students who were involved in fights during the previous 12 months remained at $31 \%$ while $10 \%$ were involved in fights on school property. In addition, $9 \%$ of students reported being threatened or injured on school grounds during the past year, similar to 2005 (8\%). The percentage of students injured from a physical fight remained at $4 \%$ in 2007 as it was in 2005.

In 2007, 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 increased to $6 \%$ from a low of $4 \%$ in 2005.

## VIOLENCE IN RELATIONSHIPS

Eight percent of students in 2007 reported that they had been forced to have sex at least once at some point in their life. Almost twice as many students $(14 \%)$ reported that they had been hit by their boyfriend or girlfriend in the last 12 months.

## WEAPONS POSSESSION

The percentage of New Jersey high school students who had carried a weapon during the past 30 days decreased steadily across survey years. Still, in 2005 and 2007, more than one in 10 students ( $11 \%$ each) reported that they had carried a weapon, down from 13\% in 2001 and 18\% in 1995.

The proportion of students who carried a weapon on school property during the previous month in 2007 was similar to the low reached in 2005 ( $4 \%$ and $3 \%$, respectively).

## FIGURE 1

PHYSICAL VIOLENCE AND WEAPONS POSSESSION



Involed in a Physical Fight, Past 12 Months
Carried Weapon, Past 30 Days
Involed in a Physical Fight on School Property, Past 12 Months
Carried Weapon on School Property, Past 30 Days
Missed School Day because Felt Unsafe

## Marijuana and Cocaine Use

The percentage of New Jersey high school students who reported both lifetime and recent marijuana use was almost identical in 2007 and 2005 (Figure 2). In 2007, 36\% of students reported lifetime use of marijuana, which was identical to 2005 results and lower than the high of $41 \%$ in 2001. About one in five students ( $19 \%$ ) in 2007 used marijuana in the prior month (recent marijuana use), as compared to $20 \%$ in 2005, $25 \%$ in 2001 and $24 \%$ in 1995.

The percentage of students reporting lifetime cocaine use was fairly consistent across survey years, with $6 \%$ of students in 2007 and 2005 having used cocaine at least once in their lifetime compared with $9 \%$ in 2001 and $7 \%$ in 1995. Recent cocaine use also remained consistent across survey years. In 2007, $3 \%$ of students used cocaine at least once during the previous month, similar to the 2\% in 2005, and 4\% in both 2001 and 1995.

A small number of New Jersey high school students (4\%) used marijuana at least once on school property during the previous month. Marijuana use on school property was at a high of 7\% in 1995 and a low of $3 \%$ in 2005.

## Other Lifetime Drug Use

Overall, lifetime use of other illegal drugs has declined since 1995 before leveling off in 2005 to 2007 (Figure 3). The use of inhalants has decreased substantially over time, from $20 \%$ in 1995 to $11 \%$ in 2007. Down from $8 \%$ in 2001, methamphetamine use sustained a low of $3 \%$. The use of heroin went to $2 \%$ up from $1 \%$ in 2005, but down from $4 \%$ in 2001. The percentage of students who used steroid pills or shots without a doctor's prescription was at $3 \%$ in 2007. The proportion of students who reported needle use for an illegal drug was at a low of $1 \%$ in 2005 compared to $2 \%$ in 2007.

## Lifetime Use of One or More Substances

Included in the study were ten lifetime substance use questions targeting marijuana, crack/cocaine, heroin, methamphetamines, hallucinogens, ecstasy, other club drugs, steroids, inhalants and injection drug use. Students were divided into three groups: those who had not used drugs of any kind, those who had used only one drug, and those who had used multiple drugs. Overall, the majority of students (58\%) had not used any drugs in their lifetime, as compared to $60 \%$ in 2005. Slightly more than one-fourth ( $28 \%$ ) had used only one drug and the remaining $13 \%$ had used more than one drug.

## Offered, Sold, or Given Drugs at School

The percentage of students who were offered, sold, or given an illegal drug on school property during the previous year decreased to $25 \%$ in 2007, which was down from a high of $33 \%$ in 2005.

MARIJUANA AND COCAINE USE, LIFETIME AND PAST 30 DAYS
20\% $40 \%$ (

FIGURE 3

OTHER DRUG USE, LIFETIME


## ALCOHOL USE

Reporting of lifetime alcohol consumption declined in 2007 from levels in past surveys (Figure 4). This proportion was the lowest of all four years at $76 \%$, compared to a high of $83 \%$ in 2001.

While lifetime rates decreased, rates of recent and binge drinking both increased in 2007 from 2005, when all-time lows were achieved. For each of these behaviors, the 2007 percentages were identical to the rates in 1995. About half of students in 2007 (51\%) reported having one or more drinks of alcohol within the prior 30 days (recent alcohol use), as compared to $47 \%$ in $2005,56 \%$ in 2001 , and $51 \%$ in 1995 . Nearly one third of students in 2007 (31\%) had engaged in recent binge drinking, having five or more drinks on the same occasion. This is an increase from the $27 \%$ of students who engaged in binge drinking in 2005, but is similar to the rates seen in 2001 (33\%) and 1995 (31\%).

The use of alcohol on school property has remained relatively consistent across survey years (4\%-6\%).

## TOBACCO USE

Overall, reports of lifetime and recent cigarette use among New Jersey high school students declined in 2007 from levels reported in previous years (Figure 5). In 2007, 47\% of students had tried cigarette smoking, even one or two puffs, as compared to $49 \%$ in 2005,63\% in 2001, and $70 \%$ in 1995.

The number of students reporting cigarette use during the previous month reached a low of $19 \%$ in 2007. This figure was $20 \%$ in $2005,29 \%$ in 2001, and $36 \%$ in 1995. A similar percentage of students in 2007 (5\%) reported being daily smokers as in 2005 (4\%).

The number of students smoking six or more cigarettes each day they smoked during the previous month maintained the low of $3 \%$ in 2005, down from 9\% in 2001 and 13\% in 1995.

## FIGURE 5 |l|

CIGARETTE USE, LIFETIME AND PAST 30 DAYS


ALCOHOL USE, LIFETIME AND PAST 30 DAYS


## PERCEIVED RISK FROM ALCOHOL, TOBACCO AND DRUGS

In 2005 and 2007, high school students were asked about their perceptions of physical harm associated with cigarette, alcohol, and marijuana use (Figure 6). The proportions of students in 2007 who perceived a great risk from cigarette, alcohol, and marijuana use showed little change from the proportions of students in 2005. In 2007, about two-thirds (68\%) of New Jersey high school students believed that smoking a pack of cigarettes per day was a great health risk compared to about a third or fewer students who indicated consuming five or more drinks per weekend (36\%), drinking one or two drinks per day (34\%), or smoking marijuana occasionally (27\%) was a great health risk.

## FIGURE 6

# PERCEIVED RISK FROM ALCOHOL, TOBACCO, AND DRUGS 



## PHYSICAL ACTIVITY

Over all survey years, approximately two-thirds of New Jersey high school students ( $66 \%-70 \%$ ) reported engaging in vigorous exercise for 20 or more minutes on three or more days per week (Figure 7). This figure was at a high in 1995 and leveled in 2001 through 2007. A similar percentage of students engaged in moderate physical activity for 30 or more minutes on three or more days per week in 2007 (49\%) as in 2005 (47\%) and 2001 (47\%). About half of New Jersey high school students engaged in muscle toning exercise three or more days per week ( $51 \%$ in 2005 vs. $54 \%$ in 2001 vs. $52 \%$ in 1995). (This question was not asked in 2007.) In 2007, about one-third of students ( $31 \%$ ) had been physically active for at least 60 minutes per day in the previous week, as compared to $34 \%$ of students in 2005.

## FIGURE 7

PHYSICAL ACTIVITY IN PAST WEEK


## BODY MASS INDEX (BMI)

Students' self-reported height and weight was used to calculate a body mass index (BMI). BMI is calculated as weight in kilograms divided by height in meters squared. A BMI that is greater than the 95th percentile of the index population for gender and age is considered "obese," while a child in the 85th to 95 th percentile is considered "overweight". All others who are at the 85th percentile or below are considered "normal". Overall, slightly more New Jersey high school students reported having a body mass index outside the normal range in 2007 and 2005 ( $27 \%$ each) than in 2001 (25\%). Males (15\%) were more likely than females (6\%) to be categorized as obese, while a similar percentage of males (16\%) and females (16\%) were placed in the overweight category (Figure 9). It is recognized that other factors such as muscle mass contribute to an individual's weight.

## FIGURE 9

BODY MASS INDEX (BMI)


## TV, Internet and Video Games

Fewer New Jersey high school students watched three or more hours of television on an average school day in 2007 (31\%) than in previous years ( $36 \%$ in $2005 ; 41 \%$ in 2001). In 2007, one in four ( $26 \%$ ) students reported three or more hours a day of playing video games or being on the Internet on an average school day.

Since 2007 marked the first attempt at quantifying Internet and video game activity, it is unclear whether the decline in the number of hours students watch TV is offset by these other activities. After combining student responses to these activities, $57 \%$ watched TV, played video games or were on the Internet for three or more hours including $31 \%$ who did so for five or more hours (Figure 8).
| FIGURE 8
HOURS OF TELEVISION, VIDEO GAMES, INTERNET ON AVERAGE SCHOOL DAY


## DIETARY BEHAVIORS

The percentage of New Jersey high school students who ate five or more servings of fruits and vegetables per day during the previous seven days has been on the decline since 2001 (Figure 10). This includes servings of fruit, $100 \%$ fruit juice, potatoes, if not fried, salad, carrots, and other vegetables. This figure increased slightly to $19 \%$ in 2007 from an all-time low of $17 \%$ in 2005. Only $9 \%$ of students reported consuming three or more glasses of milk per day during the past week compared to $11 \%$ in 2005 and $12 \%$ in 2001.

More than one in five New Jersey high school students (22\%) indicated that they drank soda/pop one or more times per day in the past seven days.

## | FIGURE 10

FRUIT, VEGETABLE, AND MILK CONSUMPTION


Five or More Servings of Fruits and Vegetables Per Day Three or More Glasses of Milk Per Day

## SEXUAL BEHAVIOR

The percentage of New Jersey high school students who had sexual intercourse in their lifetime slightly increased to $46 \%$ in 2007 from a low of $44 \%$ in 2005 (Figure 11). Males ( $45 \%$ ) were equally as likely as females $(46 \%)$ to have had sexual intercourse. The likelihood of students having sexual intercourse increased with age. About two-thirds of students 18 years old or older (66\%) had ever had intercourse, as compared to about half of 16 - and17-year-olds ( $53 \%$ ) and about one-fourth ( $29 \%$ ) of those 15 years old and younger.

Over the years, about one-third of students reported having had intercourse during the past three months (33\%-36\%). This percentage (34\%) showed little change in 2007 from the low of $33 \%$ in 2005.

Overall, the proportion of students who reported having multiple sexual partners (four or more) in their lifetime increased to $14 \%$ from 12\% in 2007. This percentage was $16 \%$ in 1995 and $17 \%$ in 2001. A similar pattern is evident when examining students who had sex before the age of 13 . Highs of $8 \%$ were reached in 1995 and 2001 before declining to $5 \%$ in 2005 and 6\% in 2007.

The percentage of New Jersey high school students who reported ever becoming pregnant, or causing a pregnancy, was $5 \%$ in 2007 compared to a low of $4 \%$ in 2005.

## HIV/AIDS Education, HIV and STD Testing

The percentage of students who had been taught about AIDS or HIV infection in school dropped to 89\% in 2007, from a high of 96\% in 2005.

Slightly more than one in eight high school students had ever been tested for HIV (13\%) and sexually transmitted diseases (STD) (15\%) in 2007.
past three months (34\% of students). In 2007, more than a third of sexually active students ( $35 \%$ ) reported not using a condom the last time they had sexual intercourse, as compared to $29 \%$ in 2005. The 2007 figure is similar to the proportions shown in 2001 (36\%) and 1995 (37\%) (Figure 12).

Students were also asked which birth control method they or their partner used the last time they had sexual intercourse. Among sexually active students, nearly seven in 10 either used condoms (53\%) or birth control pills (17\%). This is down from nearly eight in 10 who used either condoms ( $61 \%$ ) or birth control pills (16\%) in 2005. The 2007 figures more closely match the contraception patterns of 2001. In addition, more sexually active students in 2007 (11\%) than in 2005 (7\%) reported that they used no form of birth control when they last had sex. About one in 10 students used withdrawal (12\%) the last time they had sex, which is identical to the rates in 2005 and 2001.

Among sexually active students, nearly one-fourth (23\%) reported that they used drugs or alcohol prior to their last sexual encounter. This is a decline from the rates in 2001 (27\%) and 1995 (30\%) but similar to 2005 findings (22\%). Males (27\%) and those 18 and over (26\%) were slightly more likely than females (20\%) and those 15 and younger (17\%) to have used alcohol or drugs prior to their last sexual encounter.

## SEXUAL BEHAVIORS, AMONG ALL STUDENTS



## SEXUALLY ACTIVE STUDENTS



[^0]
## SUICIDE

Overall, rates of suicide have been on the decline since 1995 (Figure 13). In 2007, all-time lows were reached for the percentage of students who had considered suicide (12\%), made a plan for suicide (10\%), attempted suicide ( $7 \%$ ), and had been injured in a suicide attempt (2\%). A greater proportion of females than males considered suicide ( $14 \% \mathrm{vs} .9 \%$ respectively) and had made a plan for suicide ( $12 \%$ vs. $8 \%$ respectively) though the frequency of suicide attempts did not vary by gender. Questions on suicide were not asked in 2005.

## Cutting

In 2007, New Jersey high school students were asked whether they had ever purposely injured themselves in the last 12 months by using a sharp object to cut themselves deep enough to draw blood. Overall, one in 10 students (10\%) had done so, though females (13\%) were twice as likely as males (6\%) to self-injure. A greater proportion of Hispanic students (14\%) than Black (10\%) or White students (8\%) reported cutting themselves in the last 12 months.

## HEALTH CONDITIONS

In 2007, New Jersey high school students were asked if they had ever been diagnosed with asthma. Nearly one in four students (24\%), had been diagnosed with asthma by a doctor or nurse - an increase from one in five students (20\%) in 2005. Slightly greater proportions of males (26\%) than females (22\%) and Black (30\%) and Hispanic students (28\%) than White students ( $21 \%$ ) reported having been diagnosed with asthma.

## VEHICLE SAFETY

Overall, high school students in 2007 continued to report more positive behaviors with regard to vehicle safety as in previous years (Figure 14). Rates of drinking and driving dropped slightly to an all-time low of $9 \%$ in 2007. In 2005, $10 \%$ of students reported drinking and driving within the previous 30 days while this figure was $13 \%$ in 2001 and $11 \%$ in 1995. The percentage of students who rode with a driver who had been drinking during the previous 30 days was also slightly lower in 2007 (24\%) than in previous survey years ( $28 \%-30 \%$ ).

The percentage of students who never or rarely wore a seat belt when riding in a car driven by someone else (11\%) increased slightly from 2005 (8\%). However, this percentage in 2007 remained below levels in 1995 (24\%) and 2001 (15\%).

## FIGURE 14



## SUICIDE



## INTERNET SAFETY

One in six New Jersey high school students (16\%) reported that over the past year, while they were online, they "always or most of the time" sent or received messages from someone who was a stranger (Figure 15). More than one of five New Jersey high school students (21\%) had been asked to meet an online contact whom they knew only from the Internet. About one in six students (16\%) had considered meeting someone that they did not know in person, though a smaller proportion (13\%) had actually made a plan to meet someone. More than one of four New Jersey high school students ( $27 \%$ ) reported that over their lifetime, they had met in person one or more people they had previously only known online.

FIGURE 15
INTERNET SAFETY



[^0]:    ${ }^{\wedge}$ No birth control refers to those who indicated they no listed method among condom, pill, Depo-provera, withdrawal, some other method or not sure.

