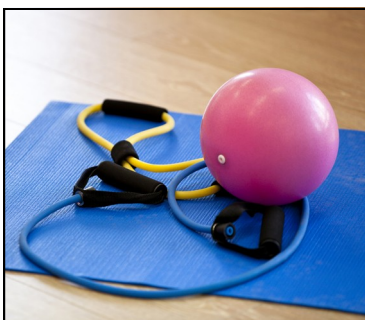




# 2011

## Health and Risk Behaviors of Massachusetts Youth



Massachusetts Department of Elementary and  
Secondary Education

Massachusetts Department of Public Health

May 2012





The Commonwealth of Massachusetts  
MASSACHUSETTS DEPARTMENT OF ELEMENTARY AND  
SECONDARY EDUCATION  
MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH

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COMMISSIONER, DPH

May 2012

Dear Colleagues, Parents, and Students:

The Massachusetts Departments of Elementary and Secondary Education and Public Health (ESE, DPH) are pleased to present the results of two coordinated surveys of Massachusetts adolescents, the 2011 Massachusetts Youth Risk Behavior Survey (ESE) and the Massachusetts Youth Health Survey (DPH). These two surveys were supported by funding from the Centers for Disease Control and Prevention (CDC) and administered in a random sample of 137 public secondary schools by the University of Massachusetts Center for Survey Research in the spring of 2011. Combining results from both surveys, *Health and Risk Behaviors of Massachusetts Youth, 2011* presents key indicators of the behavioral and health risks reported by middle school and high school youth.

This report provides important information about behaviors and conditions that may compromise the health, safety, and wellbeing of young people across the Commonwealth. These behaviors include tobacco, alcohol, and other drug use; behaviors leading to injuries, such as drinking and driving, fighting, and suicide attempts; dietary behaviors and physical inactivity; and sexual behaviors that may lead to sexually transmitted disease or pregnancy. The report also discusses the prevalence of health-related conditions such as obesity, chronic disease, oral health problems, and mental health concerns among our youth.

Results presented here show continued improvements in many important areas, especially some indicators of substance use, nutrition, violence, and personal safety. These improvements attest to the success of efforts by schools, community programs, healthcare workers, and families to foster the healthy development of young people in Massachusetts. Even so, despite clear successes, there are still behaviors in which improvements have not been seen, most notably sexual risk behaviors, physical activity, overweight, and mental health, areas that warrant continued concern and attention. Stronger efforts to address these problems and to promote the health of all young people remain a priority.

Thank you for your continued commitment to improving the lives and health of youth in Massachusetts.

Sincerely,

Mitchell D. Chester, Ed. D  
Commissioner  
Department of Elementary  
and Secondary Education

John Auerbach, MBA  
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## ACKNOWLEDGEMENTS

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The joint administration of the Massachusetts Youth Risk Behavior Survey (MYRBS) and the Massachusetts Youth Health Survey (MYHS) was only successful through the collaborative efforts of the Massachusetts Departments of Elementary and Secondary Education (ESE) and Public Health (DPH), along with the University of Massachusetts' Center for Survey Research (CSR) and the Centers for Disease Control and Prevention (CDC). We would like to extend our thanks to the 5,371 public high school students and 3,554 public middle school students who participated in the 2011 MYRBS and MYHS. We would also like to thank the school principals, teachers, nurses and superintendents of the 54 high schools and 83 middle schools represented for welcoming us into their classrooms. Their commitment to the health of their students is apparent and commendable.

Chiniqua Milligan of the Coordinated School Health Program, Massachusetts Department of Elementary and Secondary Education, and Diane Gonsalves, Bureau of Health Information, Statistics, Research and Evaluation, Massachusetts Department of Public Health, prepared the report. A special thanks to Anthony Roman, University of Massachusetts, Boston Center for Survey Research, and the many people at both departments who provided invaluable input and feedback.

Data collection for the Massachusetts Youth Risk Behavior Survey was supported through the CDC's Cooperative Agreement with the Massachusetts Department of Elementary and Secondary Education, 5U87DP001251. Data collection for the Massachusetts Youth Health Survey was supported through funding from the Massachusetts Department of Public Health.

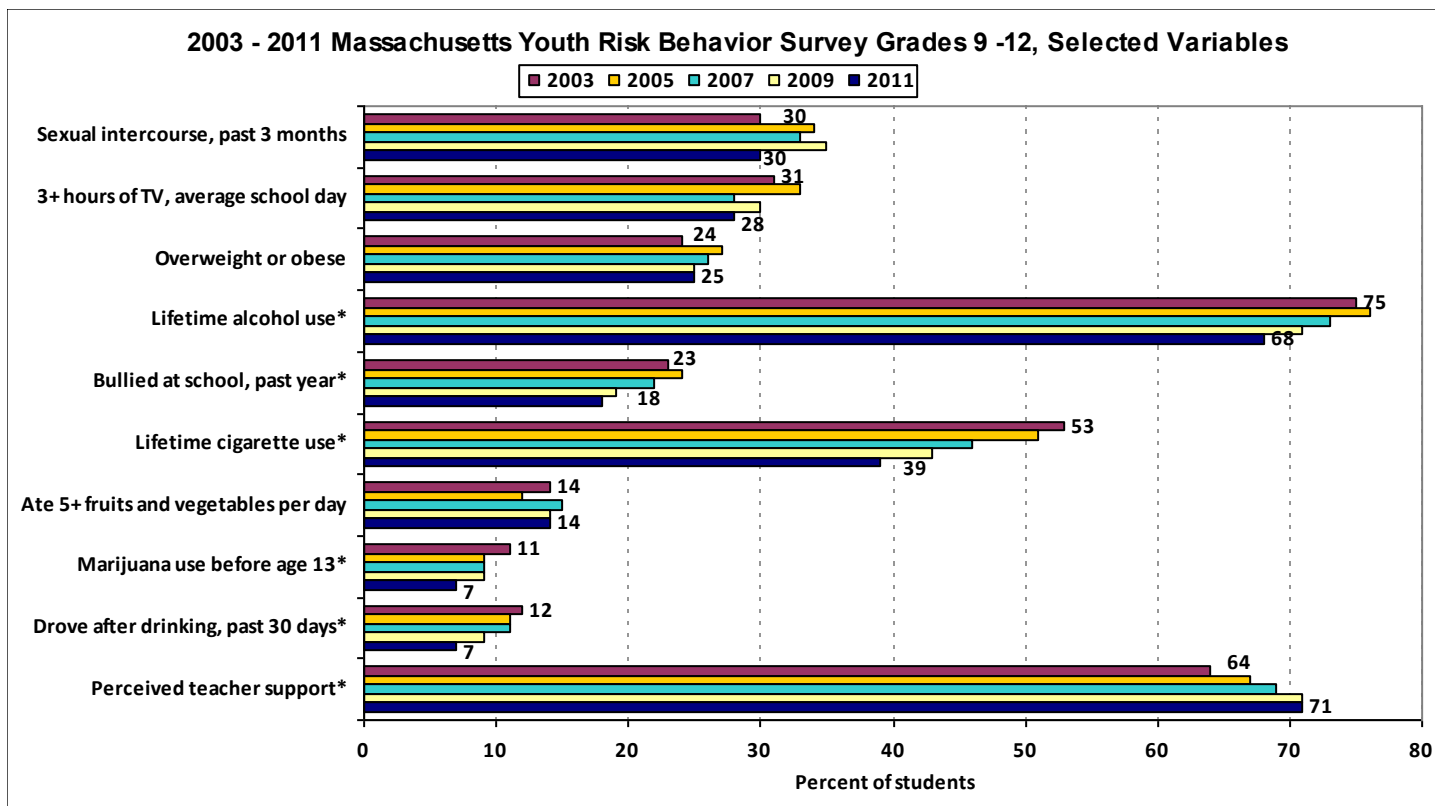
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## EXECUTIVE SUMMARY

### INTRODUCTION

*Health and Risk Behaviors of Massachusetts Youth, 2011*, is the product of a collaborative effort between the Massachusetts Department of Elementary and Secondary Education (ESE) and Department of Public Health (DPH) to conduct two youth surveys in Massachusetts public secondary schools in the spring of 2011. Altogether, 8,925 students in 137 schools participated in the surveys. ESE's Massachusetts Youth Risk Behavior Survey measures high school risk behaviors over time. DPH's Youth Health Survey provides a snapshot of middle school student risk behaviors as well as other health status indicators in high school.



### SUMMARY OF KEY FINDINGS

**Many adolescent risk behaviors have shown significant improvements since 2003.** Since 2003 improvements have been seen in the areas of substance use, nutrition, violence and personal safety. In particular, a lower percentage of high school students in 2011 have ever used alcohol, driven after drinking, used marijuana before age 13, and been bullied at school. Also, more students are reporting eating breakfast every day, using seatbelts, and feeling there was a teacher in their school they could talk to about a problem.

**Many important risk areas remain statistically unchanged since 2003.** Among high school students, there have been no significant changes in the percent reporting any lifetime sexual intercourse, condom use at last intercourse among sexually active youth, or ever having been/gotten someone pregnant. Also unchanged are high school students' reports of physical education, physical activity, suicidal thought and behaviors, mental health indicators, and obesity.

**Many risk behaviors begin in middle school; however, there have been some improvements in 2011.** Compared to 2009, fewer middle school students reported using alcohol in their lifetime (20% vs. 26%), smoking cigarettes in their lifetime (10% vs. 15%), and drinking one or more glasses of soda on the day before the survey (34% vs. 39%). Also, more middle school students reported receiving A's, B's, or C's for grades in 2011 than in 2009 (92% vs. 87%). Indicators that have remained unchanged in middle school since 2009 include marijuana use, other drug use, physical activity, and weight.

**Some factors that help protect against risky behaviors have worsened.** The percentage of students reporting having ever been taught in school about HIV/AIDS continues to decline significantly.

**Information regarding several risk and protective factors is beginning to emerge.** In 2011, new questions about cyber-bullying, violence initiation, and support from teachers were asked. Seventeen percent (17%) of high school students reported being a victim of cyber-bullying and 10% of high school students reported initiating cyber-bullying in the past year. Sixty-three percent (63%) of high school students agreed or strongly agreed that their teachers really care about them and give them encouragement and support.

# INTRODUCTION

## BACKGROUND

*Health and Risk Behaviors of Massachusetts Youth, 2011* presents the results of the third collaborative administration of the Massachusetts Youth Risk Behavior Survey (MYRBS) and the Massachusetts Youth Health Survey (MYHS).

The MYRBS is conducted every two years by the Massachusetts Department of Elementary and Secondary Education (ESE) with funding from the United States Centers for Disease Control and Prevention (CDC). The survey monitors youth risk behaviors related to the leading causes of morbidity and mortality among adolescents. Since 1993, the MYRBS has surveyed public high school students from a scientifically selected random sample of schools across the Commonwealth.

At various times during the past 20 years, the Massachusetts Department of Public Health (DPH) has conducted surveys of Massachusetts youth to assess health behaviors and other health indicators. DPH surveys students in middle and high schools (grades 6 through 12). In 2003, the Center for Survey Research of the University of Massachusetts-Boston (CSR) began working with DPH to update and administer the questionnaire, which was at that time named the Massachusetts Youth Health Survey (MYHS).

In 2005 ESE and DPH began a collaborative effort to coordinate survey administration. Working with CSR, the two agencies developed revised versions of the MYRBS and MYHS with a core set of questions common to both surveys. Since 2007, CSR has been contracted to simultaneously administer both surveys. This report summarizes findings from the 2011 surveys.

## SAMPLE AND PARTICIPATION

For the high school surveys, MYRBS and MYHS, the CDC used a two-stage sampling method to produce representative samples of students in grades 9 – 12; all public schools with at least one of grades 9 through 12 were eligible to participate. In the first stage, schools were selected with a probability proportional to school enrollment size. In the second stage, classes of a required subject or required period were selected randomly.<sup>1</sup> Once classes were selected, half were randomly assigned to receive the MYRBS and half the MYHS. Trained survey administrators from CSR administered the surveys in the participating schools. Including both surveys, usable data were collected from 5,371 high school students in 54 schools. The overall response rates (i.e., the school response rate multiplied by the student response rate) were 69% for both the MYHS and the MYRBS.

For the middle school survey (MYHS), CSR used similar scientific procedures to select a representative random sample of middle schools and classrooms within those schools. CSR staff administered the MYHS in selected schools and classes. Data were collected from 3,554 middle school students from grades 6 through 8 in 83 schools. The overall response rate was 63%.

## ANALYSIS AND STATISTICS PRESENTED

The statistics presented in this report are weighted (i.e., adjusted for nonresponse and distribution of students by grade, sex and race/ethnicity) in order to be representative of Massachusetts high school and middle school students as a whole. Since each of the surveys includes a scientifically selected sample of public school students, not a complete census, 95% confidence intervals provide a range of values that most likely contain the true percent estimates for the population.

Results reported for high school students are derived from the MYRBS, except for a few instances when the data are from the MYHS and are noted as such. In most instances, results from 2003, 2005, 2007, 2009 and 2011 administrations are shown for key variables. All middle school results presented in this report were derived from the MYHS. Many statistics reported in this report are displayed graphically; however, on occasion the text will provide further information. Time trends using MYRBS indicators are included in the report for the years 2003-2011. Trend analysis was performed only when five consecutive years of data were available and when variable calculation was consistent for all five years. Statistically significant increasing or decreasing trends are presented in the graphs with an asterisk and discussed in the text. Suppression of the presented MYHS estimates was based on the following guidelines used by DPH:

- Estimates and their 95% confidence intervals are not presented in the tables if the underlying sample size is less than 50 respondents.
- Following recommendations of the National Center for Health Statistics, data are not presented in the tables if a ratio of standard error to the estimate itself exceeds 30% (relative standard error of greater than 30%). Standard error of the estimate is a measure of its variability. Bigger standard errors yield wider confidence intervals and less reliable estimates.

All data collected for the MYRBS and the MYHS are based on self-report from students. Self-reported data may be subject to error for several reasons, including inaccurate recall of events.<sup>2</sup>

<sup>1</sup>“Centers for Disease Control and Prevention: Methodology of the Youth Risk Behavior Surveillance System”, MMWR: September 2004, Vol. 53, N0. RR-12, Centers for Disease Control and Prevention, U.S. Dept. of Health and Human Services, Atlanta Ga. 30323. <sup>2</sup> National Center for Health Statistics. (January 11, 2007). Reliability of Survey Estimates. Retrieved August 2, 2007, from <http://www.cdc.gov/nchs/about/major/ahcd/reliability.htm>



## DEMOGRAPHICS

**Figure 1: Demographic Characteristics of the 2011 MYHS and MYRBS Student Samples N (weighted %)**

	Middle School MYHS (n= 3,554)	High School	
		MYHS (n= 2,642)	MYRBS (n=2,729)
<b>Sex</b>			
Female	1,693 (49.0%)	1,270 (49.2%)	1,350 (49.2%)
Male	1,779 (51.0%)	1,346 (50.8%)	1,371 (50.8%)
Missing	82	26	8
<b>Grade</b>			
6 <sup>th</sup> grade	1,108 (33.1%)	--	--
7 <sup>th</sup> grade	1,199 (33.6%)	--	--
8 <sup>th</sup> grade	1,224 (33.2%)	--	--
9 <sup>th</sup> grade	--	714 (26.8%)	616 (26.8%)
10 <sup>th</sup> grade	--	714 (25.3%)	641 (25.3%)
11 <sup>th</sup> grade	--	583 (24.4%)	700 (24.3%)
12 <sup>th</sup> grade	--	615 (23.3%)	745 (23.3%)
Ungraded or Other	4 (0.1%)	5 (0.2%)	8 (0.3%)
Missing	19	11	19
<b>Race/Ethnicity<sup>a</sup></b>			
White (non-Hispanic)	2,222 (69.0%)	1,802 (70.2%)	1,777 (70.0%)
Black or African-American (non-Hispanic)	212 (8.2%)	158 (8.6%)	191 (8.8%)
Hispanic or Latino	481 (15.2%)	371 (13.9%)	399 (14.0%)
Asian or Pacific Islander	197 (3.8%)	129 (4.0%)	156 (4.0%)
Other or Multiple Ethnicity	191 (3.9%)	117 (3.2%)	131 (3.2%)
Missing	251	65	75

(a) Students were allowed to indicate multiple racial/ethnic categories. If Hispanic/ Latino was indicated as an ethnic identification, whether alone or in combination with other ethnic categories, the student was categorized as Hispanic/Latino. The Other or Multiple Ethnicity category includes American Indian or Alaskan Natives and youth who indicated several ethnicities that did not include Hispanic/Latino.

## PROTECTIVE FACTORS

### HIGH SCHOOL STUDENTS

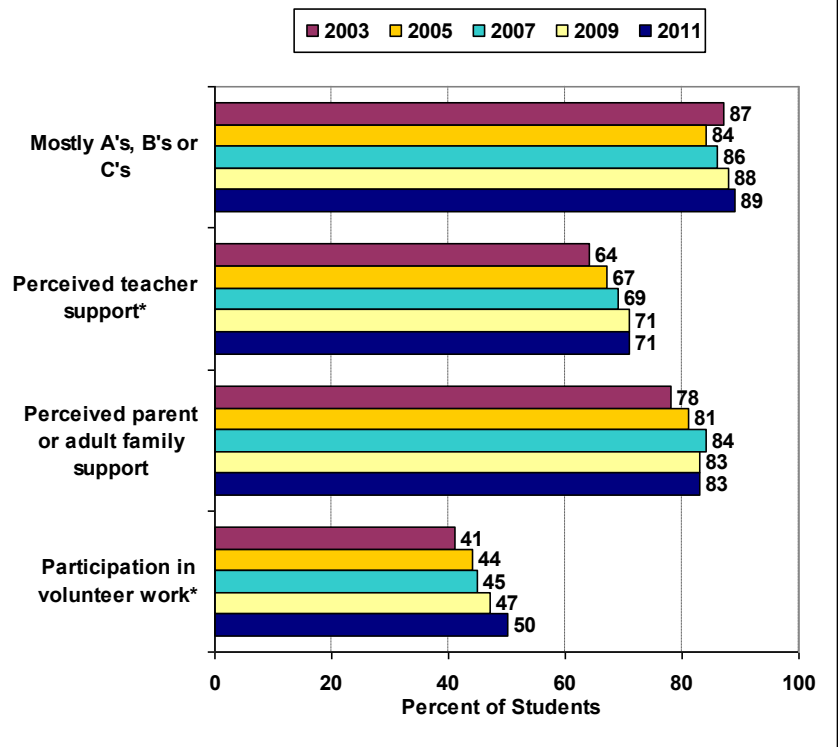
The 2011 Massachusetts Youth Risk Behavior Survey included several measures of potential protective factors among students. These included: (1) self-reported academic achievement, (2) perceived teacher or other adult support in school, (3) perceived parent or family support, (4) participation in volunteer work or community service and (5) perceived care, encouragement and support from teachers.

Most students (89%) reported receiving mostly A's, B's, or C's for grades in the past year.

Since 2003, there have been significant upward trends of students reporting that there was at least one teacher or adult in their school they could talk to if they had a problem and that they participated in volunteer work.

In addition to being asked if they felt there was a teacher or other adult in school they could talk to about problems (perceived teacher support), in 2011, students were asked about feelings of care, encouragement and support from teachers. Sixty-three percent (63%) of students agreed or strongly agreed that their teachers really care about them and give them encouragement and support.

**Figure 2: Protective Factors Reported by High School Students, 2003-2011 (MYRBS)**

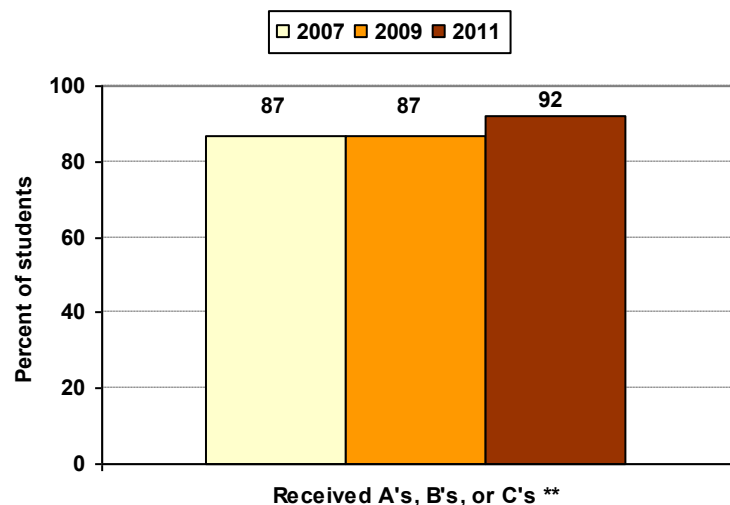


### MIDDLE SCHOOL STUDENTS

The 2011 Massachusetts Youth Health Survey for middle school students included one measure of a potential protective factor: self-reported academic achievement. Academic achievement is considered as having received mostly A's, B's, or C's for grades in the past year.

In 2011, 92% of middle school students reported receiving A's, B's or C's for grades. This was a significant increase from 87% in 2007 and 2009.

**Figure 3: Academic Achievement Across MA Middle School Students, 2007-2011 (MYHS)**



\* Statistically significant increase or decrease over time \*\* Statistically significant difference comparing 2009 and 2011

## ALCOHOL USE

### HIGH SCHOOL STUDENTS

Both the percentage of students who report ever having a least one drink of alcohol (lifetime use) and the percentage of students having their first alcoholic drink, other than a few sips, before the age of 13 years have been declining significantly since 2003.

Forty percent (40%) of students reported having an alcoholic beverage in the previous 30 days (current use). Nearly one quarter (22%) reported binge drinking (having five or more drinks of alcohol in a row within a couple of hours) in the previous 30 days.

Ninth graders were significantly less likely than both eleventh and twelfth graders to report lifetime alcohol use (58% vs. 72% and 78%), current alcohol use (29% vs. 41% and 53%) and current binge drinking (13% vs. 25% and 34%). In contrast, they were significantly more likely than their older peers to have had their first drink before age 13 (21% vs. 11% and 12%).

Tenth grade students were significantly less likely than twelfth grade students to report lifetime alcohol use (64% vs. 78%), current alcohol use (39% vs. 53%), and current binge drinking (19% vs. 34%). They were significantly more likely to report alcohol use before age 13 (13% vs. 12%) than twelfth graders.

### MIDDLE SCHOOL STUDENTS

The percent of middle school students who reported ever having at least one drink of alcohol in their lifetime (lifetime use) was 20% in 2011, significantly lower than 26% in 2009.

Eight percent (8%) of students reported current alcohol use and 3% of students reported current binge drinking in 2011.

Alcohol use indicators show an increase as grade level increases. In 2011, lifetime use of alcohol was 8% for 6<sup>th</sup> graders and 33% for 8<sup>th</sup> graders. Current use of alcohol was 2% in 6<sup>th</sup> grade and 14% in 8<sup>th</sup> grade.

Figure 4: Alcohol Use Among High School Students, 2003-2011 (MYRBS)

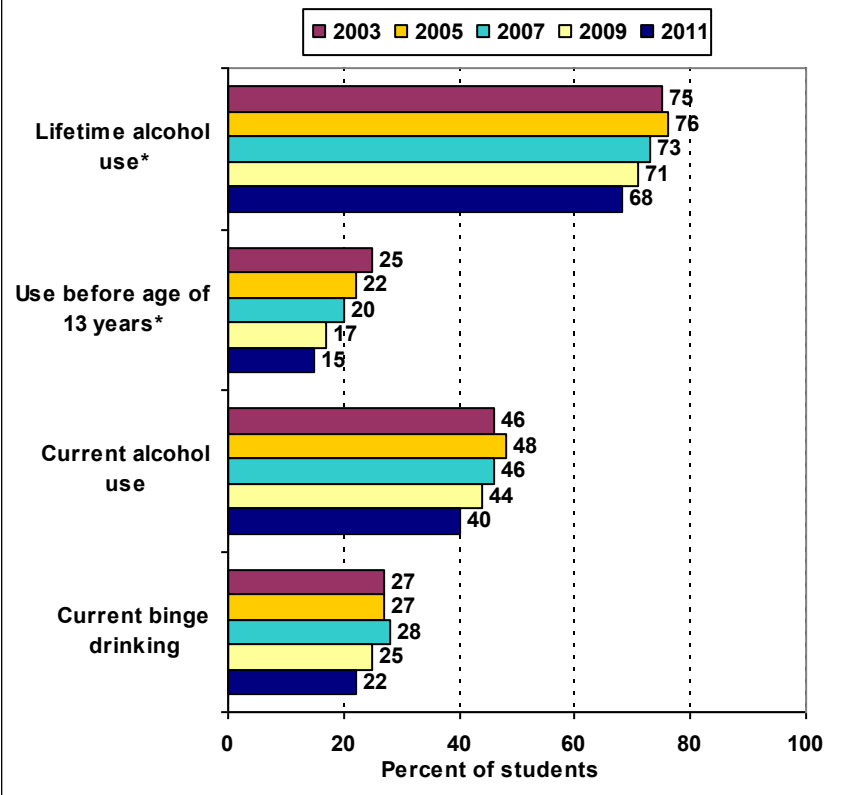
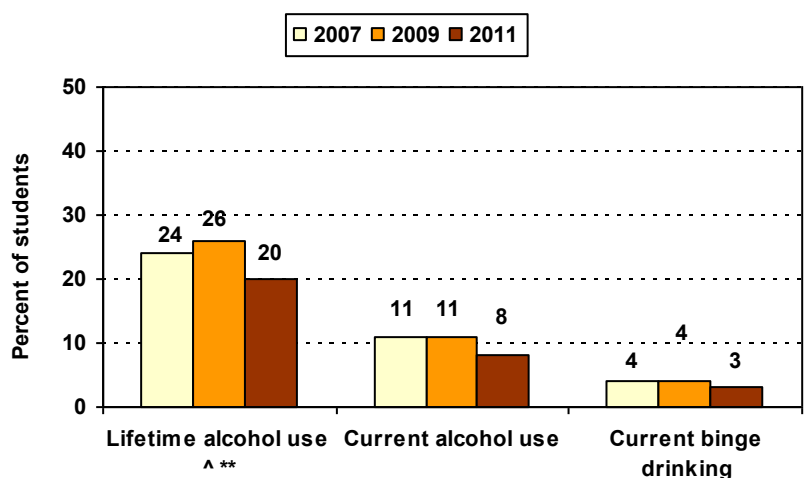


Figure 5: Alcohol Use Among Middle School Students, 2007-2011 (MYHS)



\* Statistically significant increase or decrease over time ^ Percentages reflect a change in variable calculation \*\* Statistically significant difference comparing 2009 and 2011

## TOBACCO USE

### HIGH SCHOOL STUDENTS

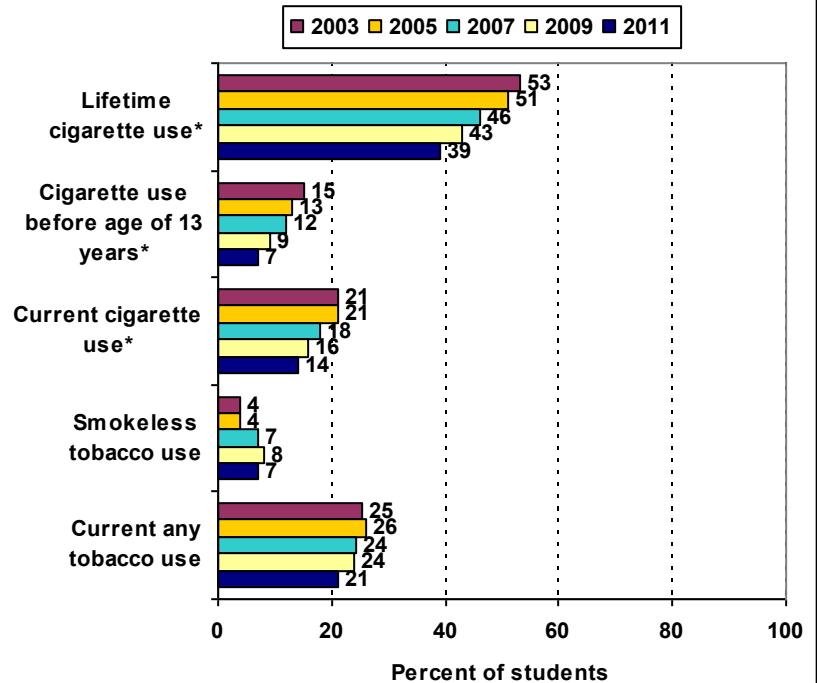
Indicators of cigarette smoking have been significantly declining among Massachusetts high school students since 2003. However, the prevalence of smokeless tobacco use has not shown this same downward trend.

In 2011, 39% of high school students reported ever having smoked a cigarette, 7% reported smoking before age 13, and 14% reported current cigarette use.

Overall, 7% of high school students reported smokeless tobacco use (chewing tobacco, snuff, dip or snus) in the past 30 days. Males were twelve times more likely to report this behavior than females (12% vs. 1%).

Fourteen percent (14%) of high school students reported smoking cigars, cigarillos, or little cigars during the previous 30 days. Ninth and tenth grade students were significantly less likely to report this behavior than eleventh or twelfth grade students (10% and 11% vs. 18% and 19%).

Figure 6: Tobacco Use Among High School Students, 2003-2011 (MYRBS)



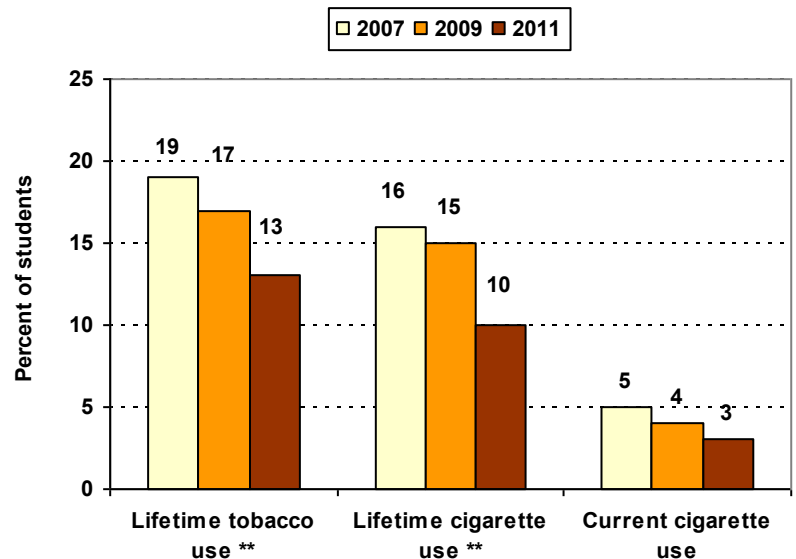
### MIDDLE SCHOOL STUDENTS

Among middle school students, the percentage of students in 2011 who reported ever trying a cigarette (lifetime use) was 10%. This was significantly different from 2009 (15%). Lifetime use of cigarettes increases over the middle school grades, from 4% in 6<sup>th</sup> grade to 10% in 7<sup>th</sup> grade and 16% in 8<sup>th</sup> grade.

The percentage of middle school students who smoked cigarettes in the past 30 days (current cigarette use) was 3% in 2011.

In 2011, 13% of middle school students reported using a tobacco product including cigarettes, smokeless, or cigars. This was significantly lower than 2009 (17%). Lifetime use of tobacco increases with grade level (5% in 6<sup>th</sup> grade, 12% in 7<sup>th</sup> grade, and 20% in 8<sup>th</sup> grade).

Figure 7: Cigarette Smoking Among Middle School Students, 2007-2011 (MYHS)



\* Statistically significant increase or decrease over time \*\* Statistically significant difference comparing 2009 and 2011

## MARIJUANA USE

### HIGH SCHOOL STUDENTS

In 2011, forty-three percent (43%) of all high school students reported having used marijuana in their lifetime and slightly more than one quarter (28%) used marijuana in the past 30 days.

Seven percent (7%) of students reported having used marijuana before the age of 13, which has been significantly declining since 2003.

Male students were more likely than female students to report lifetime use (49% vs. 38%) and current use (33% vs. 23%).

Ninth and tenth graders were significantly less likely than eleventh or twelfth graders to report having ever used marijuana (31% and 38% vs. 50% and 55%).

Current marijuana use was significantly more likely among twelfth grade students (35%) than ninth grade students (20%).

Less than half (40%) of high school students reported that they believe smoking marijuana occasionally would be a moderate or great risk to their health (MYHS 2011).

Seventy-nine percent (79%) of high school students reported that it would be very easy or fairly easy for them to obtain marijuana (MYHS 2011).

### MIDDLE SCHOOL STUDENTS

In 2011, 8% of middle school students reported having used marijuana at least once in their lives. Four percent (4%) of respondents reported current use of marijuana in 2011.

Reported lifetime marijuana use among middle school students increases by grade level (2% in 6<sup>th</sup> grade, 7% in 7<sup>th</sup> grade, and 15% in 8<sup>th</sup> grade). Current use of marijuana also increases by grade level (1% in 6<sup>th</sup> grade, 4% in 7<sup>th</sup> grade, and 6% in 8<sup>th</sup> grade).

Seventy-nine percent (79%) of middle school students thought smoking marijuana occasionally would be a moderate or great risk to their health.

Figure 8: Marijuana Use Among MA High School Students, 2003-2011 (MYRBS)

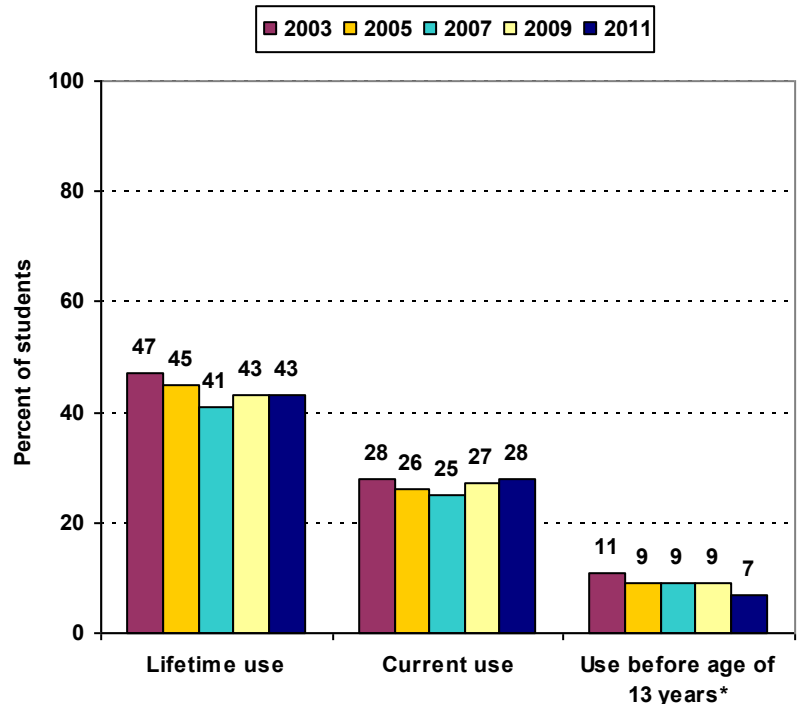
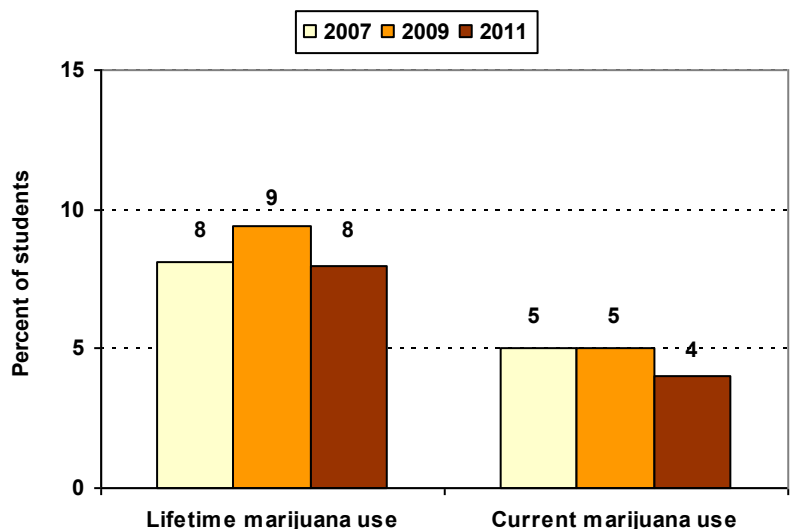


Figure 9: Marijuana Use Among MA Middle School Students, 2007-2011 (MYHS)



\* Statistically significant increase or decrease over time

## OTHER ILLICIT DRUG USE

### HIGH SCHOOL STUDENTS

The reported use of ecstasy, methamphetamines, and steroids by high schools students has been significantly declining.

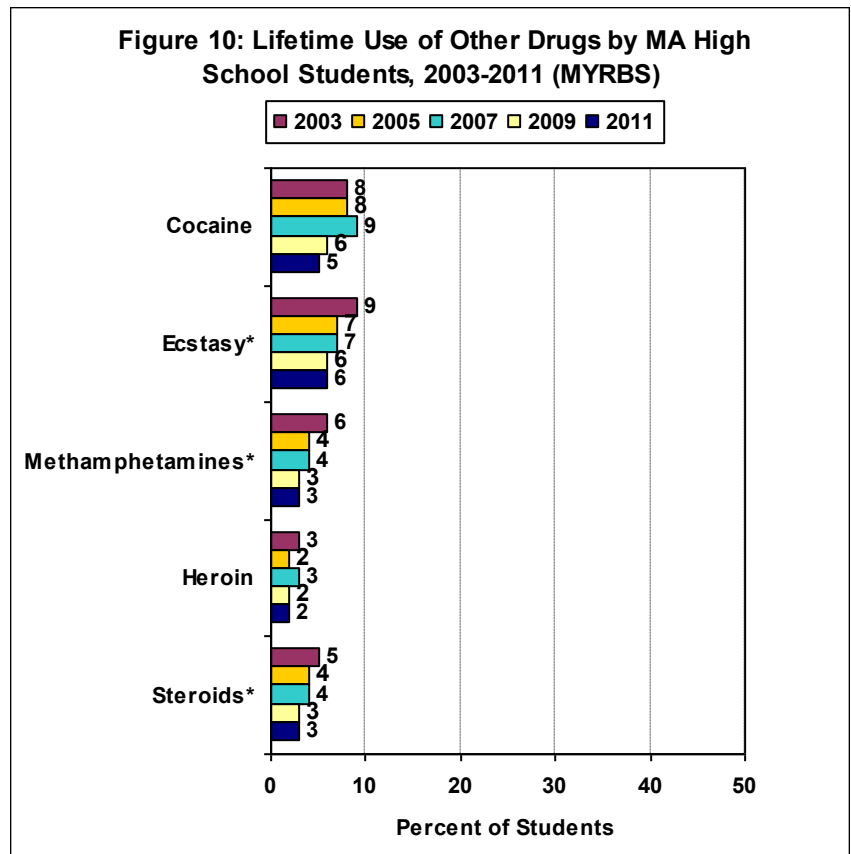
Two percent (2%) of students have used a needle to inject illegal drugs.

Five percent (5%) of all high school students used inhalants in the month before the survey.

Male students were significantly more likely to report lifetime use of cocaine (7% vs. 3%), ecstasy (7% vs. 4%) and needles to inject drugs (3% vs. 1%).

In 2011, fifteen percent (15%) of high school students reported ever taking a prescription drug that was not their own. Six percent reported this behavior in the previous 30 days. (MYHS 2011)

Eight percent (8%) of high school students reported taking over-the-counter medication to get high at least once in their lifetime. (MYHS 2011)

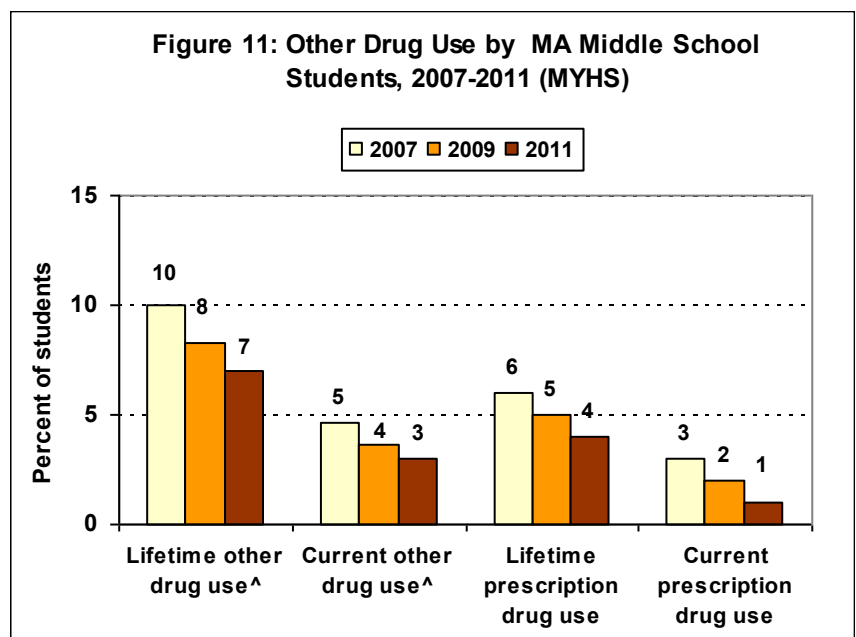


### MIDDLE SCHOOL STUDENTS

In 2011, 4% of middle school students reported lifetime use of prescription drugs that were not their own while 1% reported current use.

The “other drug” category includes inhalants, heroin, cocaine, amphetamines, methamphetamines, and ecstasy. In 2011, 7% of middle school students reporting using these drugs in their lifetime and 3% of students reported using in the past 30 days.

In 2011, 2% of middle school students reported taking over-the-counter medicine to get high (during their lifetime).



\* Statistically significant increase or decrease over time ^ Other drug category is comprised of inhalants, heroin, cocaine, amphetamines, methamphetamines, or ecstasy

## SUBSTANCE USE AT SCHOOL

### HIGH SCHOOL STUDENTS

The 2011 Massachusetts Youth Risk Behavior Survey included several measures of substance use on school property. These included alcohol, cigarette and marijuana use in the previous 30 days and having been offered, sold or given drugs in the previous year.

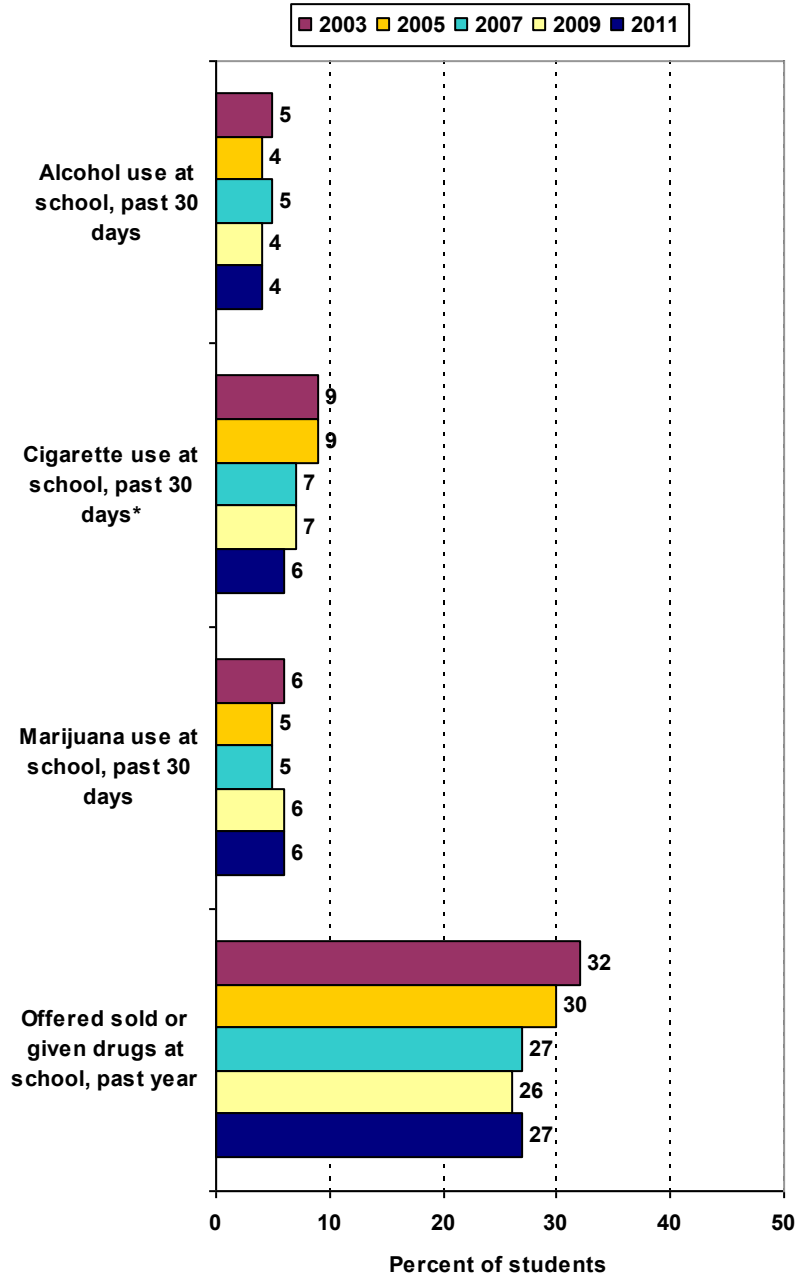
Overall, cigarette smoking on school property in the past 30 days has been significantly declining. A larger proportion of males than females reported they had smoked cigarettes on school property in the past 30 days (8% and 4%, respectively).

Four percent (4%) of high school students reported drinking alcohol on school property on one or more of the past 30 days.

Male students were more than twice as likely to report having used marijuana on school property in the past 30 days than female students, 9% and 4% respectively.

Twenty-seven percent (27%) of high school students reported being offered, sold, or given an illegal drug by someone on school property during the previous 12 months. A significantly larger percentage of male students (31%) reported this experience than female students (23%).

**Figure 12: Substance Use on School Property Among MA High School Students, 2003-2011 (MYRBS)**



(Note: Questions regarding substance use at school only appear on the Massachusetts Youth Risk Behavior Survey and therefore are only asked of high school students.) \* Statistically significant increase or decrease over time



## PHYSICAL ACTIVITY

### HIGH SCHOOL STUDENTS

Fifty-six percent (56%) of high school students reported attending physical education classes on one or more days in an average week.

Six in ten (60%) high school students reported playing on a sports team in the past year.

In 2011, 28% of students reported three or more hours per day of watching television and 32% reported 3 or more hours of non-school related video game and/or computer usage.

Forty-three percent (43%) of students reported that they were physically active for a total of at least 60 minutes per day on five or more of the past seven days.

In 2011, 62% of students reported having been taught in school how to follow a personal fitness plan which included setting personal fitness goals for themselves and keeping track of their progress.

Eighteen percent (18%) of high school students reported walking, biking, rollerblading, or skateboarding to or from school on all 5 of the past 5 school days (MYHS 2011).

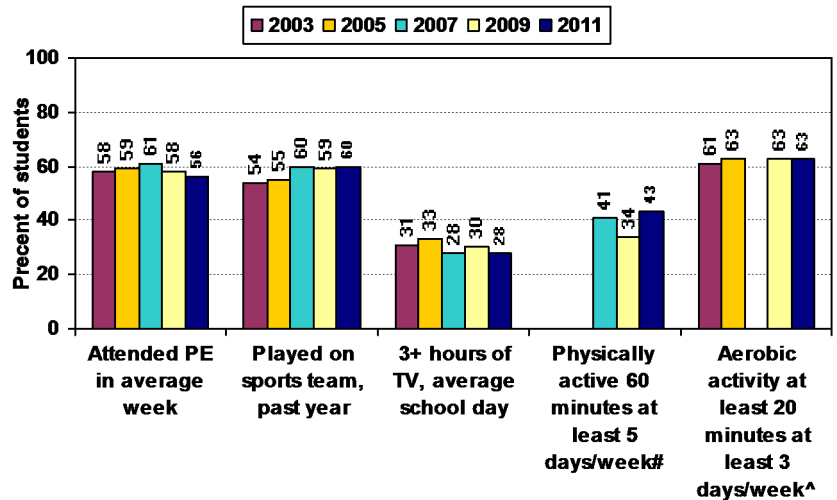
### MIDDLE SCHOOL STUDENTS

In 2011, thirty-seven percent (37%) of middle school students reported that they were physically active for at least 60 minutes per day on five or more of the past seven days. Eighty percent (80%) of middle school students reported aerobic activity of at least 20 minutes on three or more of the past seven days.

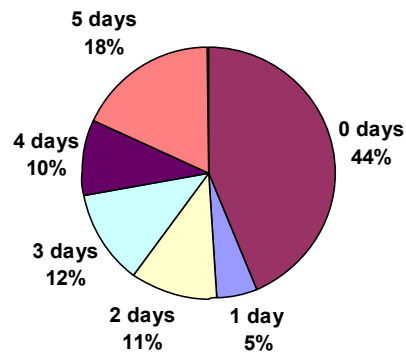
Thirty-seven percent (37%) of middle school students reported walking, biking, rollerblading, or skateboarding to or from school on at least one of the past 5 days. Nineteen percent (19%) reported these transportation modes to school for all of the past 5 days.

In 2011, 26% of middle school students reported watching 3 or more hours of TV on school days and 28% reported playing 3 or more hours of video games on school days.

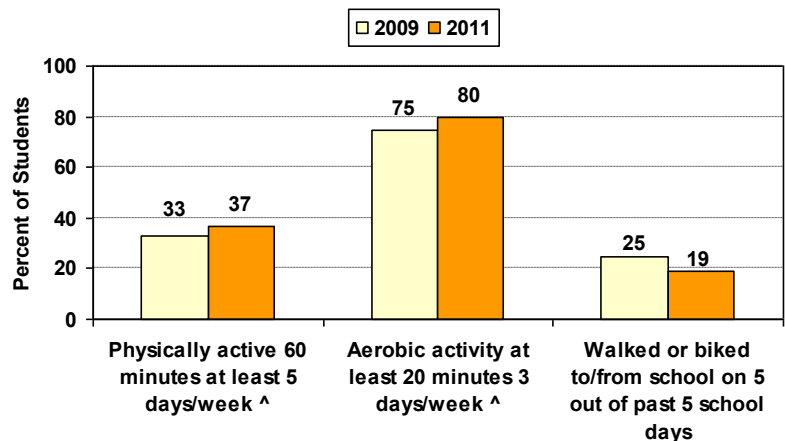
**Figure 13: Physical Activity of High School Students, 2003-2011 (MYRBS)**



**Figure 14: Number of Days Per Week High School Students Attended PE Classes (MYRBS)**



**Figure 15: Physical Activity of Middle School Students, 2009-2011 (MYHS)**





## DIETARY BEHAVIORS

### HIGH SCHOOL STUDENTS

The percentage of students reporting eating breakfast every day in the week before the survey has significantly increased since 2003.

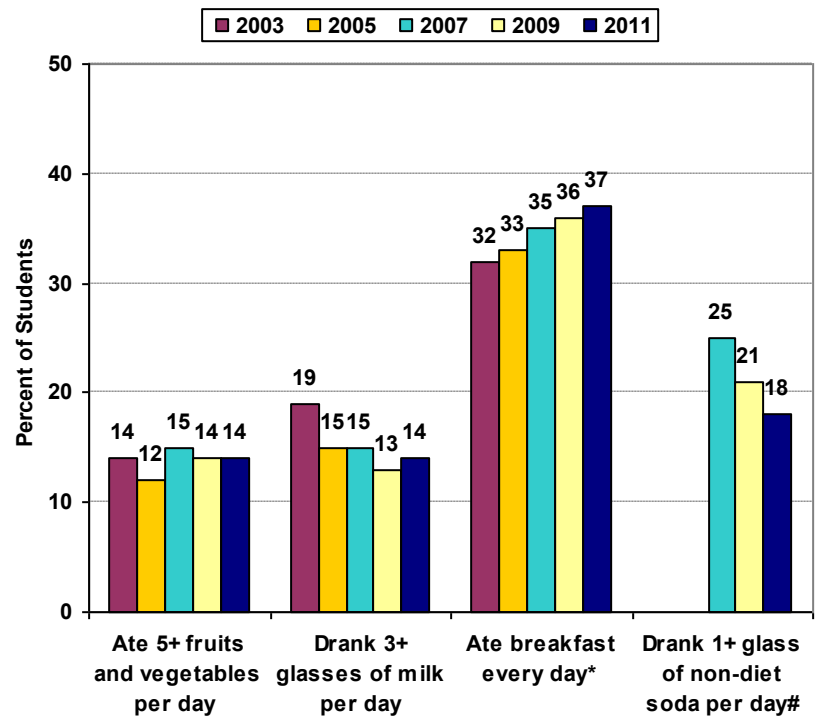
Fourteen percent (14%) of high school students reported consuming the recommended five or more servings of fruit and vegetables per day.

Only 14% of students drank the recommended three glasses of milk per day. Males were twice as likely as females to drink three or more glasses of milk (19% vs. 9%, respectively).

Nearly one fifth (18%) of students said that they drank non-diet soda one or more times per day during the past seven days, a significant drop from 2007 (25%). Male students (23%) were more likely than female students (14%) to drink soda every day.

Most high school students (80%) reported that they had been taught in school how to choose healthy foods and eat a balanced, nutritious diet.

Figure 16: Food Consumption of High School Students, 2003- 2011 (MYRBS)



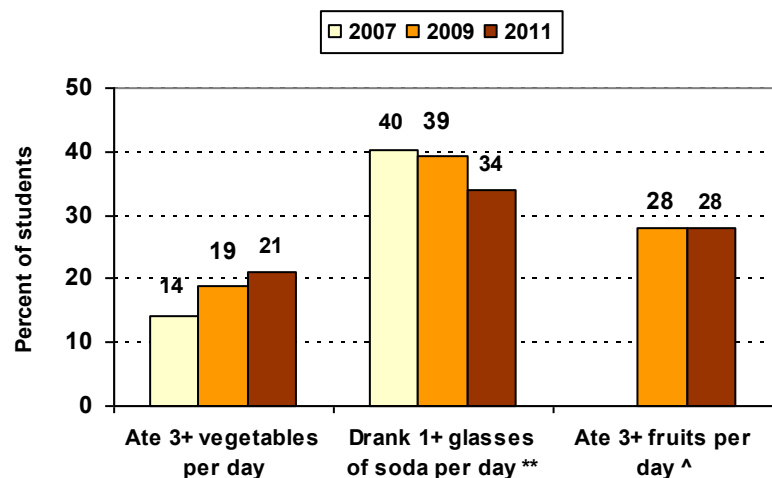
### MIDDLE SCHOOL STUDENTS

In 2011, thirty-four percent (34%) of middle school students reported drinking one or more glasses of non-diet soda on the day preceding the survey, which was significantly lower than 2009 (39%). Though consumption of non-diet soda was the same across grades, 38% of males reported this behavior compared to 30% of females.

In 2011, twenty-one percent (21%) of middle school students reported consuming three or more servings of vegetables the day before the survey.

In 2011, 28% of middle school students ate three or more fruits on the day before the survey.

Figure 17: Dietary Behaviors of Middle School Students, 2007-2011 (MYHS)



\* Statistically significant increase or decrease over time \*\* Statistically significant difference comparing 2009 and 2011 # Not asked in 2003 or 2005 ^ Not asked in 2007

## WEIGHT AND WEIGHT CONTROL

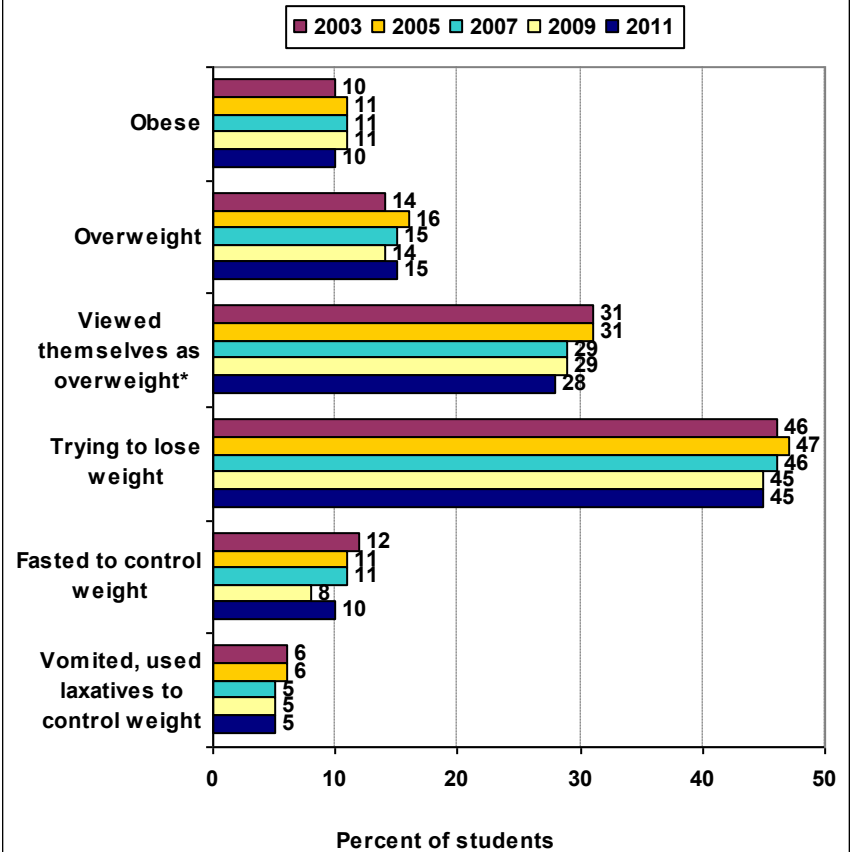
### HIGH SCHOOL STUDENTS

According to their Body Mass Index, calculated on the basis of self-reported height and weight, 15% of students were overweight (i.e., greater than or equal to 85th percentile but less than 95th percentile for body mass index, by age and sex, based on reference data) and 10% were obese (i.e., greater than or equal to 95th percentile for body mass index, by age and sex, based on reference data).

Male students were more likely than female students to be obese (14% vs. 6%, respectively); however, they were less likely to perceive themselves as overweight (23% vs. 32%) and less likely to report that they were trying to lose weight (32% vs. 60%). Overall, the percentage of students viewing themselves as overweight has been significantly declining since 2003.

Some students reported using unhealthy methods to control their weight. For example, 10% reported trying to control their weight by fasting or going without eating for 24 hours or more, 4% indicated that they used diet pills, powders, or liquids without a doctor's prescription to try to control their weight, and 5% indicated using laxatives or vomiting to control their weight.

Figure 18: Weight Perception and Weight Control Among High School Students, 2003-2011 (MYRBS)



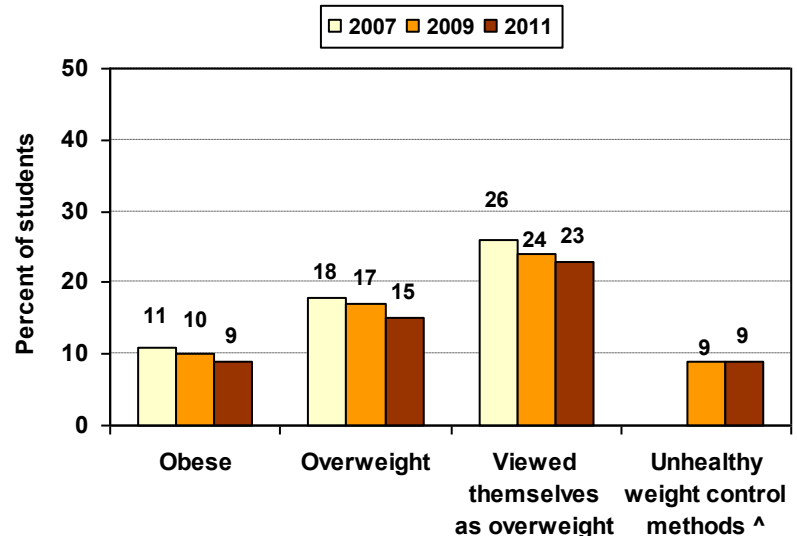
### MIDDLE SCHOOL STUDENTS

In 2011, fifteen percent (15%) of middle school students were overweight, based on self-reported height and weight, compared to 17% in 2009. Nine percent (9%) of middle school students were obese in 2011 compared to 10% in 2009.

In 2011, 23% of middle school students perceived themselves to be slightly or very overweight. In 2011, 9% of middle school students reported unhealthy weight control methods (fasting, vomiting, taking pills, or taking laxatives).

More middle school boys were overweight or obese than girls (30% vs. 18%). However, they were no more likely than girls to perceive themselves as slightly or very overweight (24% vs. 21%).

Figure 19: Weight and Weight Control Among MA Middle School Students, 2007 - 2011 (MYHS)



\* Statistically significant increase or decrease over time ^ Not asked in 2007

## PERSONAL SAFETY

### HIGH SCHOOL STUDENTS

Indicators of personal safety are showing some significant improvements. Fewer students are reporting driving after drinking in the past 30 days and never or rarely wearing a seat belt (minimal use) while a passenger in a car.

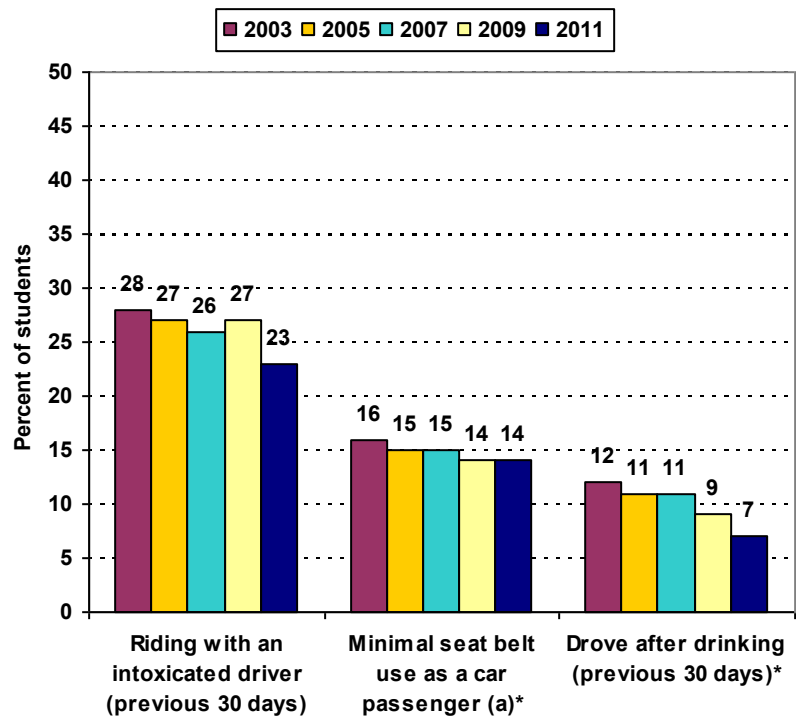
In 2011, 23% of students reported riding in the past month with a driver who had been drinking.

Male students were more likely than female students to report driving after drinking (8% vs. 5%, respectively). Twelfth grade students were more likely than students in all other grades to report driving after drinking.

Of the high school students who played on a sports team in the past year, 21% reported having experienced symptoms of a traumatic brain injury after a blow or jolt to the head while playing, and 42% reported wearing a mouthguard at least once (MYHS 2011).

Of high school students who reported driving a car, 42% reported sending text messages while driving (MYHS 2011).

Figure 20: Motor Vehicle Safety Among MA High School Students, 2003-2011 (MYRBS)



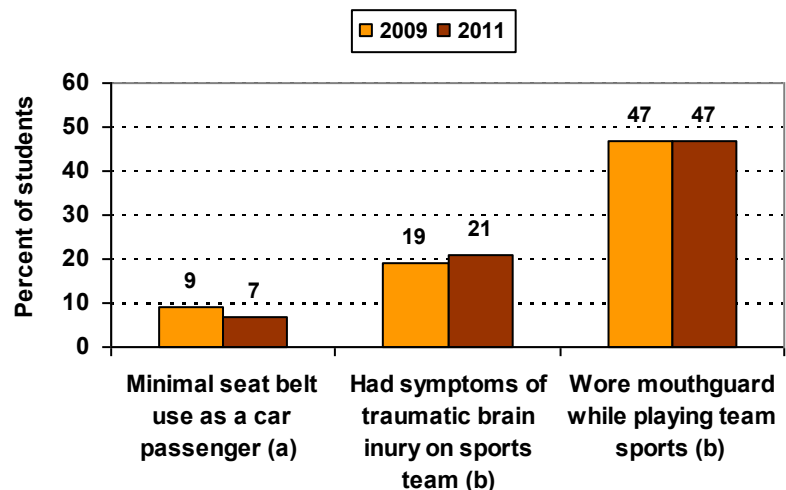
### MIDDLE SCHOOL STUDENTS

In 2011, of the middle school students who played on a sports team in the past year, 21% reported having experienced symptoms of a traumatic brain injury after a blow or jolt to the head while playing. Eighth grade students were more likely than sixth grade students to report experiencing these symptoms (24% vs. 18%).

Seven percent (7%) reported minimal seat belt use (reported never or rarely wearing a seatbelt) while a passenger in a car.

In 2011, less than half (47%) of middle school students who played on a sports team reported wearing a mouthguard at least once while playing in the past 12 months.

Figure 21: Personal Safety Among MA Middle School Students, 2009-2011 (MYHS)



\* Statistically significant increase or decrease over time (a) Never or rarely using a seatbelt (b) of students who played on sports teams

## VIOLENCE-RELATED BEHAVIORS AND EXPERIENCES

### HIGH SCHOOL STUDENTS

One quarter (25%) of students reported having been in a physical fight in the past year and 6% report gang involvement. Both of these violence indicators have shown overall significant declines.

In 2011, 12% of high school students reported having carried a weapon in the previous 30 days, 3% carried a gun in the past 30 days and 4% were involved in a fight in the past year in which they were injured and required medical treatment.

Male students were significantly more likely than female students to report physical violence-related behaviors and experiences:

- Carried a weapon, past 30 days (20 % vs. 4%)
- Carried a gun, past 30 days (5% vs. 0.2%)
- Involved in a fight, past year (33% vs. 18%)
- Involved in a fight with injury, past year (5% vs. 2%)
- Member of a gang, past year (9% vs. 3%).

Some forms of violence-related behavior decrease with grade level. Ninth grade students were significantly more likely to report having been in a physical fight in the past year (30%) than twelfth grade students (20%).

### MIDDLE SCHOOL STUDENTS

In 2011, 11% of middle school students reported being physically hurt by a family member in the previous 12 months.

Ten percent (10%) reported witnessing violence in their family in the previous 12 months.

Figure 22: Physical Violence Indicators Among MA High School Students, 2003-2011 (MYRBS)

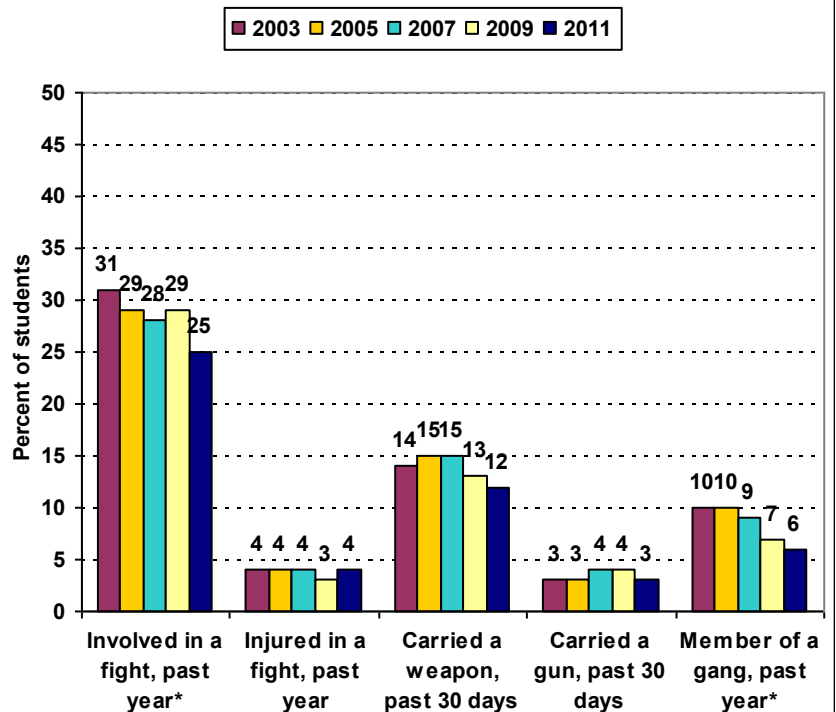


Figure 23: Physical Violence Among MA Middle School Students, 2007-2011 (MYHS)



\* Statistically significant increase or decrease over time

## VIOLENCE-RELATED BEHAVIORS AND EXPERIENCES AT SCHOOL

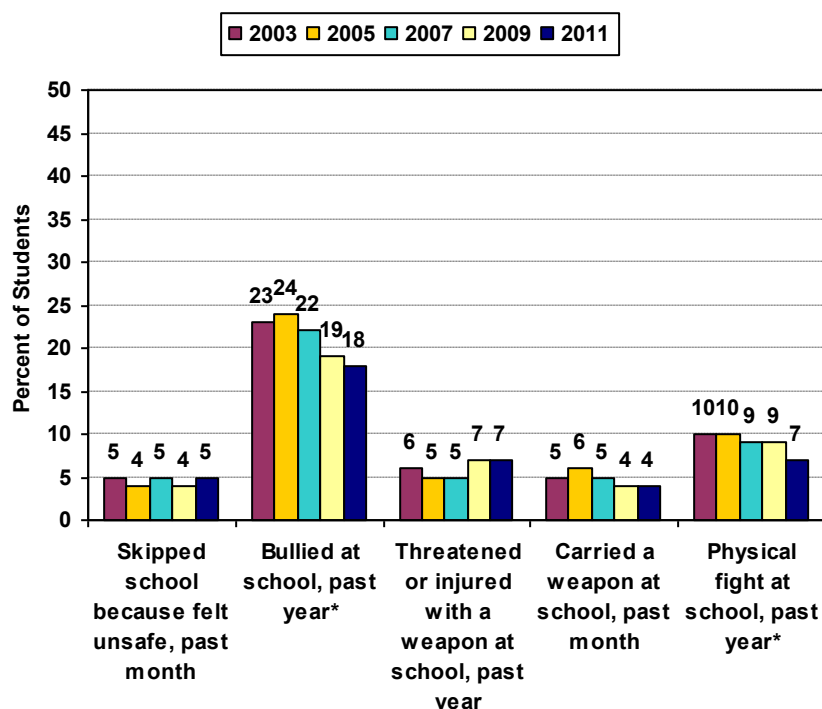
### HIGH SCHOOL STUDENTS

Some measures of school violence-related behaviors and experiences are showing significant declines, in particular, being bullied at school and being involved in a physical fight in the past year. In 2011, 18% of students reported being bullied at school and 7% reported being in a physical fight at school in the past year.

Five percent (5%) of students skipped school at least once in the 30 days before the survey because they felt unsafe either at school or on their way to school. There was a significant difference between ninth grade and eleventh grade students who reported this (7% and 3%, respectively).

Male students were more than two times more likely than female students to report having been threatened or injured with a weapon at school in the past year (9% vs. 4%), having carried a weapon at school in the past year (5% vs. 2%), and having been in a physical fight on school property in the past year (10% vs. 4%).

Figure 24: Violence-Related Experiences and Behaviors at School Among High School Students, 2003-2011 (MYRBS)



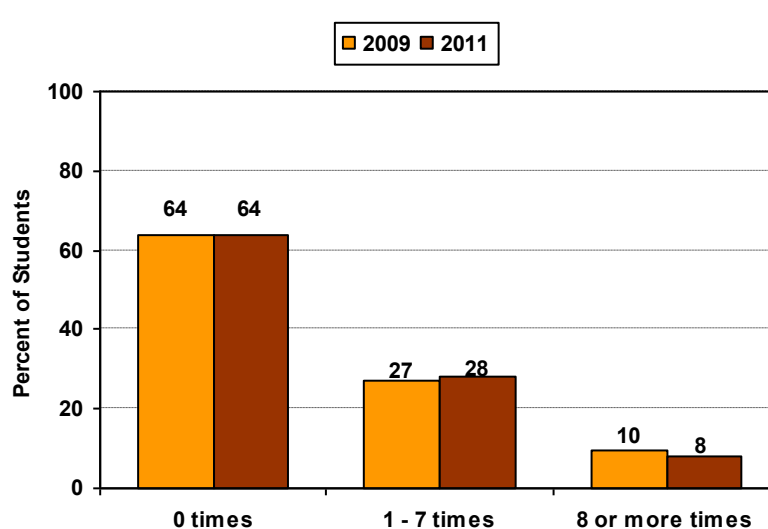
### MIDDLE SCHOOL STUDENTS

In 2011, 36% of middle school students reported being bullied at school within the past year.

Eight percent (8%) reported they were bullied frequently (8 or more times in the past year), and 64% reported that they were not bullied at all.

Female students were more likely than male students to report being bullied 1-7 times in the past year (32% vs. 25%); however, they were no more likely than males to report being bullied 8 or more times in the past year (8% vs. 8%).

Figure 25: Bullied at School Among Middle School Students, 2009-2011 (MYHS)^



\* Statistically significant increase or decrease over time ^ Figures don't add to 100 percent due to rounding

## VIOLENCE-RELATED INITIATION AND VICTIMIZATION

### HIGH SCHOOL STUDENTS

In 2011, 13% of high school students reported initiating bullying and 10% reported initiating cyber-bullying. Males (17%) were more likely than females (9%) to report initiating bullying. (MYHS)

Eighteen percent (18%) of students reported being victims of bullying while 17% reported being victims of cyber-bullying in the past year. Ninth grade students were more likely to report being victims of bullying than 11th and 12th grade students (23% vs. 15% and 14%, respectively). Nearly one quarter of female students (24%) reported being victims of cyber-bullying, which was significantly higher than male students (10%). (MYRBS)

Three percent (3%) of high school students reported initiating dating violence and 1% of high school students reported initiating sexual assault. (MYHS)

Female students were twice as likely to report being victims of dating violence than male students (12% vs. 6%) and nearly three times as likely to report being victims of sexual assault (14% vs. 5%). (MYRBS)

### MIDDLE SCHOOL STUDENTS

Overall, 10% of middle school students reported initiating bullying and 6% of students reported initiating cyber-bullying. Two percent (2%) of middle school students reported initiating dating violence.

Eighth grade students were more likely than sixth grade students to report that they had initiated bullying (12% vs. 8%), cyber bullying (7% vs. 4%), and dating violence (3% vs. 1%).

Overall, 36% of middle school students reporting being a victim of bullying, 15% reported being a victim of cyber bullying and 6% reported being a victim of dating violence.

Males were more likely than females to report initiating bullying (12% vs. 8%) while females were more likely to report being victims of bullying (40 vs. 32%).

Figure 26: Violence Initiation Across MA High School Grades, 2011 (MYHS)

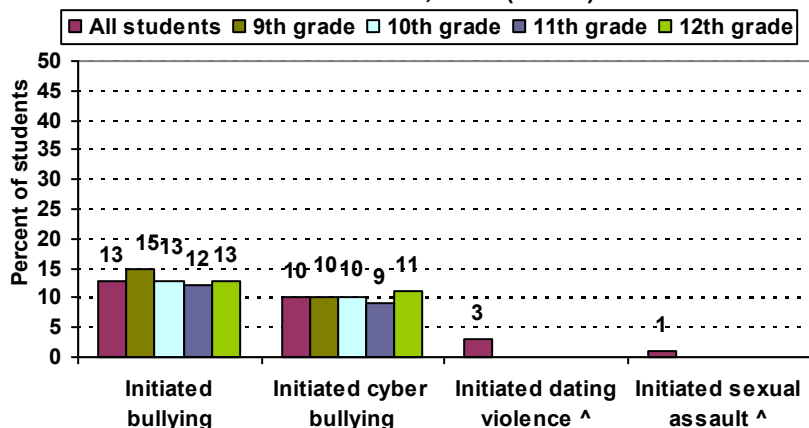


Figure 27: Victimization Across MA High School Grades, 2011 (MYRBS)

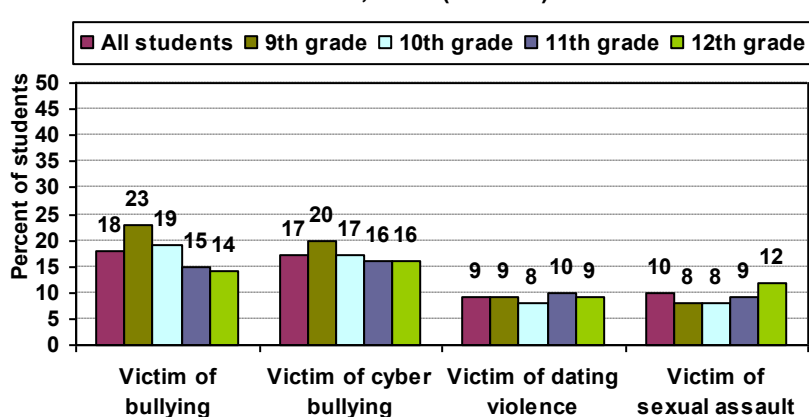
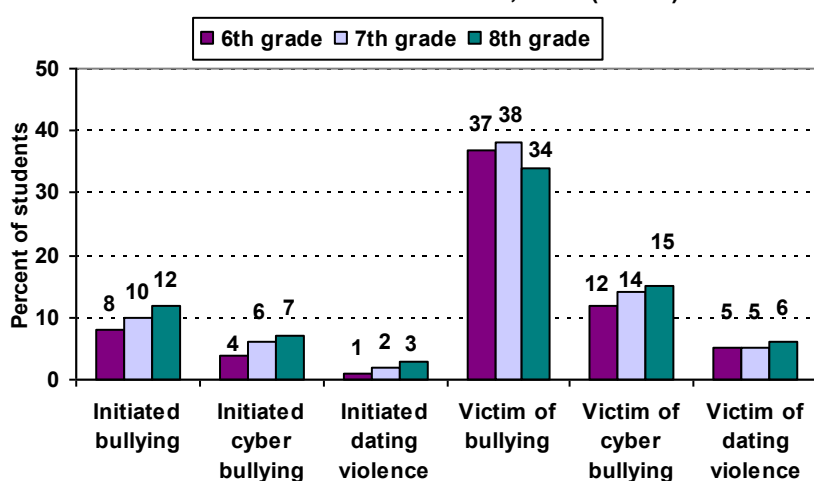


Figure 28: Violence Initiation and Victimization Across MA Middle School Grades, 2011 (MYHS)



^ Data too small to present by grade (relative standard error of greater than 30%).

## MENTAL HEALTH

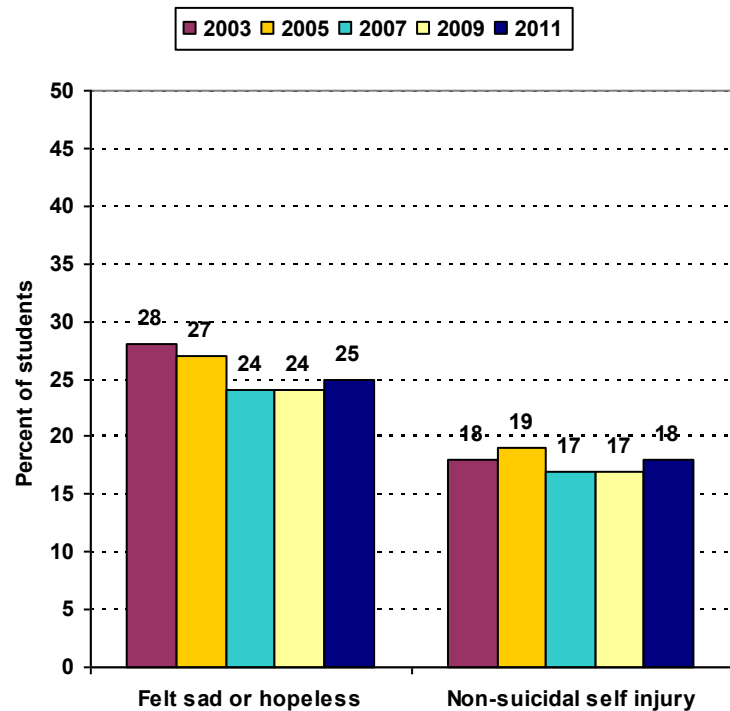
### HIGH SCHOOL STUDENTS

The 2011 MYRBS included several measures to indicate the mental health of student populations including (1) feeling sad or hopeless and (2) intentional self-injury including cutting or burning without wanting to die. The 2011 MYHS contained additional mental health measures including (1) feeling the need to talk to someone other than a family member regarding their feelings and/or current issues in their lives and (2) who they sought counsel with regarding these feelings and/or life concerns.

Overall, 25% of students reported feeling so sad or hopeless daily for at least two weeks during the previous year that they discontinued their usual activities and 18% reported non-suicidal self-injury during the past year.

In 2011, 48% of high school students reported that in the previous 12 months they had felt the need to talk to someone other than a family member regarding their feelings and/or current issues in their lives. Students reported seeking counsel within the past 12 months from a school psychologist or counselor (11%), school nurse (3%), therapist not in school (10%), case worker (2%), youth worker (3%), or religious leader (3%) (MYHS 2011).

Figure 29: Mental Health Indicators Among MA High School Students, 2003-2011 (MYRBS)



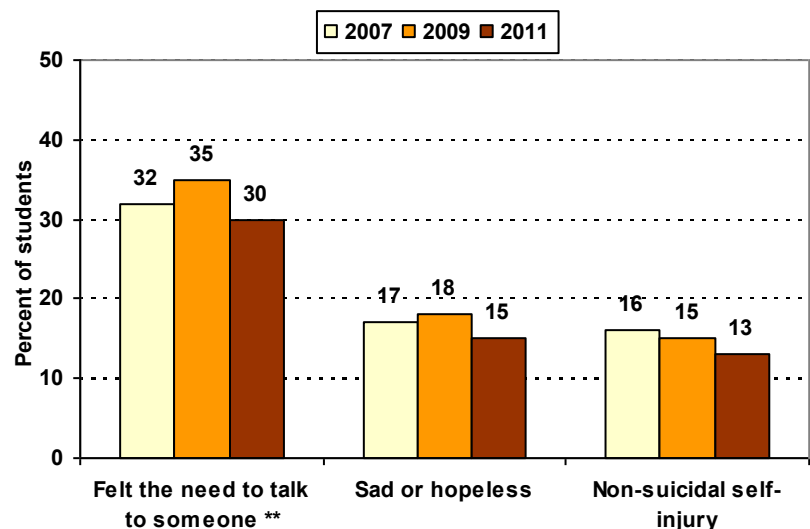
### MIDDLE SCHOOL STUDENTS

In 2011, 30% of middle school students reported that during the past year they felt a need to talk to someone other than a family member, which was significantly lower than 2009 (35%). Students reported seeking counsel within the past 12 months from a school psychologist or counselor (7%), school nurse (3%), therapist not in school (5%), case worker (1%), youth worker (2%), and religious leader (2%).

In 2011, 15% of middle school students in reported feeling so sad or hopeless daily for at least two weeks that they discontinued their usual activities.

Thirteen percent (13%) of middle school students in 2011 reported a non-suicidal self-injury during the previous year.

Figure 30: Mental Health Indicators Among MA Middle School Students, 2007-2011 (MYHS)



\*\* Statistically significant difference comparing 2009 and 2011



## SUICIDALITY

### HIGH SCHOOL STUDENTS

The 2011 MYRBS asked students several questions about suicidal thoughts and behaviors during the previous year including (1) serious considerations of suicide (2) plans to commit suicide (3) actual suicide attempts and (4) medical treatment required as the result of a suicide attempt.

Overall, 13% of students in 2011 reported they seriously considered suicide, 12% of students reported making a suicide plan, 7% reported attempting suicide and 2% reported a suicide attempt that resulted in injury that needed medical attention.

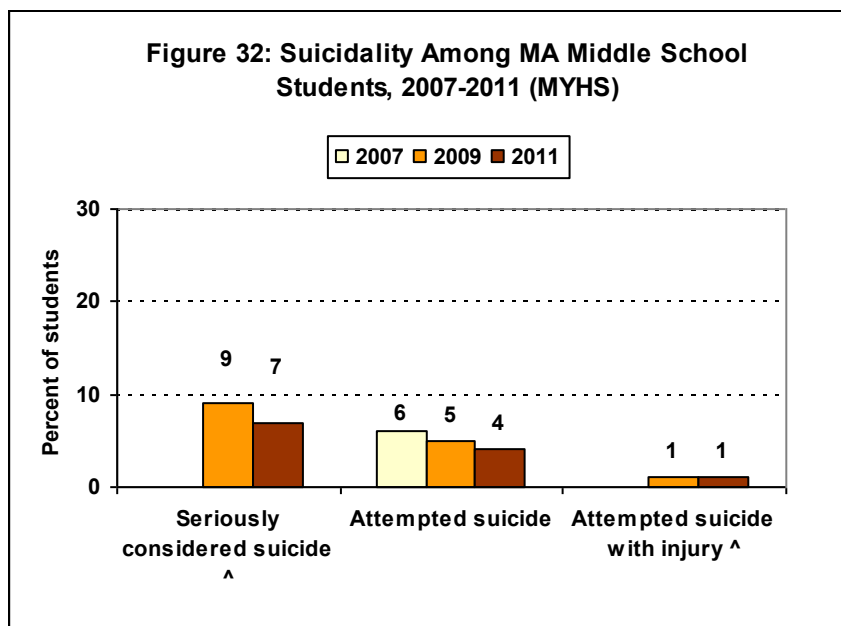
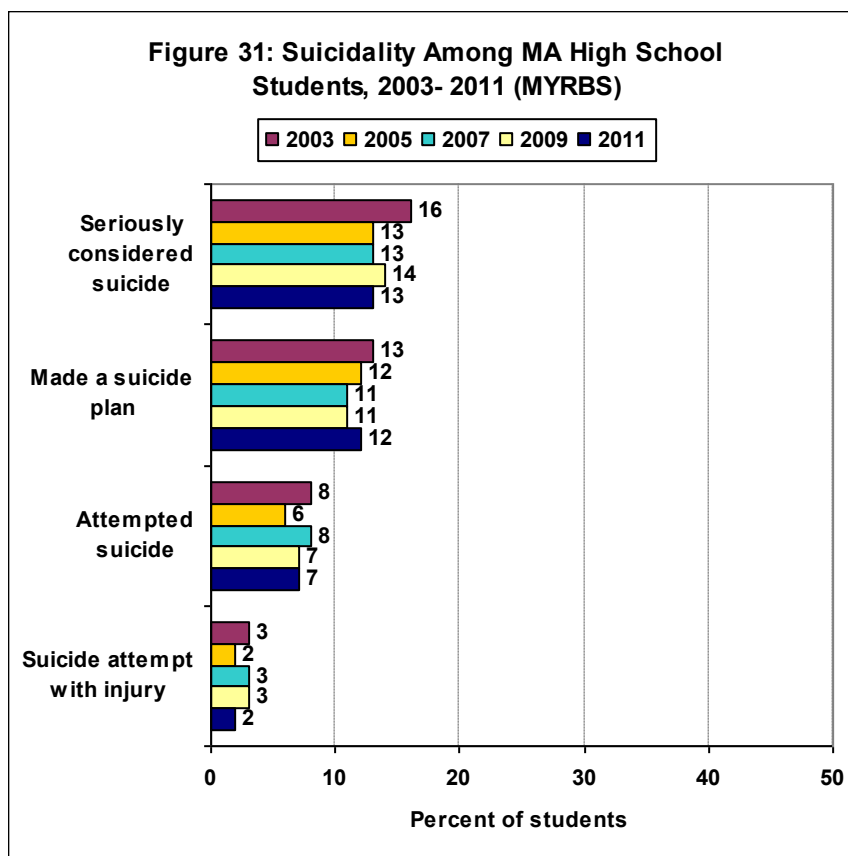
Suicidal thoughts and behaviors were more prevalent among female than male students. Sixteen percent (16%) of female students reported they considered suicide (vs. 11% among males), 14% made a suicide plan (vs. 11% among males), and 8% attempted suicide (vs. 5% among males). However, the only significantly greater difference shown was for seriously considering suicide. Two percent of both males and females reported a suicide attempt with injury.

Ninth grade students were more likely than twelfth grade students to have seriously considered suicide (14% vs. 9%).

### MIDDLE SCHOOL STUDENTS

In 2011, 4% of middle school students reported having attempted suicide one or more times in the past year compared to 5% in 2009. Females were more likely than males to report having attempted suicide (6% vs. 3%).

In 2011, 7% of middle school students seriously considered suicide and 1% of students had a suicide attempt that resulted in injury. Females were more likely than males to report seriously considering suicide (10% vs. 5%).



^ Not asked in 2007



## SEXUAL BEHAVIORS AND SEXUALITY EDUCATION

### HIGH SCHOOL STUDENTS

In 2011, fewer than half of all high school students (42%) reported ever having had sexual intercourse; 30% had intercourse in the previous three months (recent sexual intercourse); and slightly more than one in ten (11%) of students reported four or more partners in their lives.

Male students were more likely than female students to report sexual intercourse before age 13 (6% vs. 2%), drinking alcohol before last intercourse (29% vs. 17%) and condom use at last intercourse (65% vs. 51%).

In 2011, 70% of high school students reported having sexual contact that was not intercourse. Among those students, 7% reported sexual contact with both males and females. (MYHS 2011)

Sixty-two percent (62%) of high school students reported that it would be very easy for them to obtain condoms (MYHS 2011).

In 2011, 5% of students reported having been or gotten someone pregnant. Among students who had intercourse in the past 3 months, 31% reported using hormonal birth control (pills, patch, ring, implant or shot) at last intercourse. One in ten (10%) students reported using both a condom and hormonal birth control at last intercourse.

The percentage of students reporting being tested for HIV and being tested for STDs were both 11%. Female students were nearly twice as likely to report having ever been tested for STDs (14% vs. 8%). Two percent (2%) of students reported having been diagnosed with HIV infection or any other STD during their lifetime.

Having been ever been taught about HIV/AIDS in school has been significantly declining since 2003 with 84% of students reporting have received this in 2011. Nearly half (49%) of students reported being taught in school how to use a condom.

Female students were more likely than male students to report speaking with their parents or another adult in the family about sexuality or sexual risk prevention (53% vs. 38%).

Figure 33: Lifetime and Recent Sexual Behaviors Reported by High School Students, 2003-2011 (MYRBS)

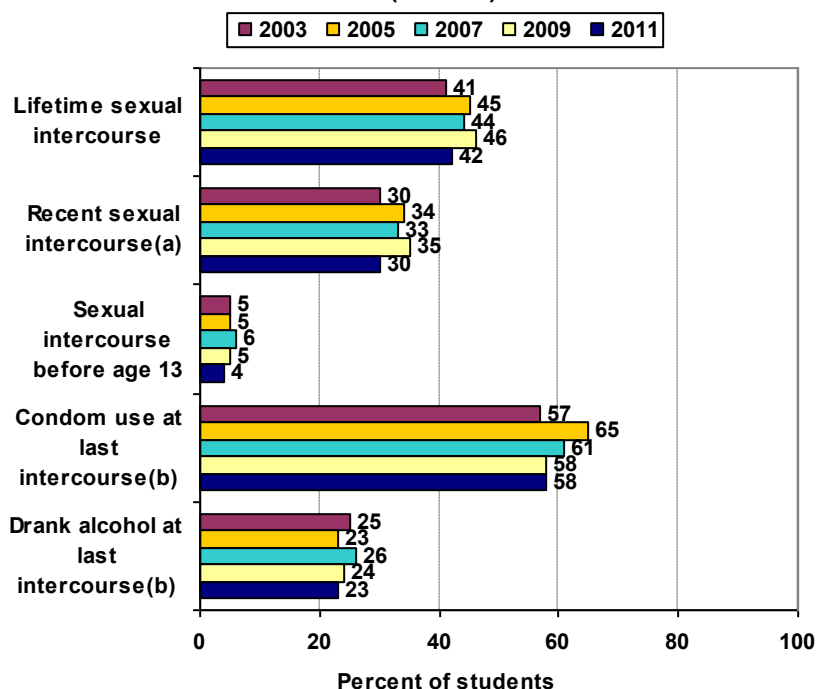
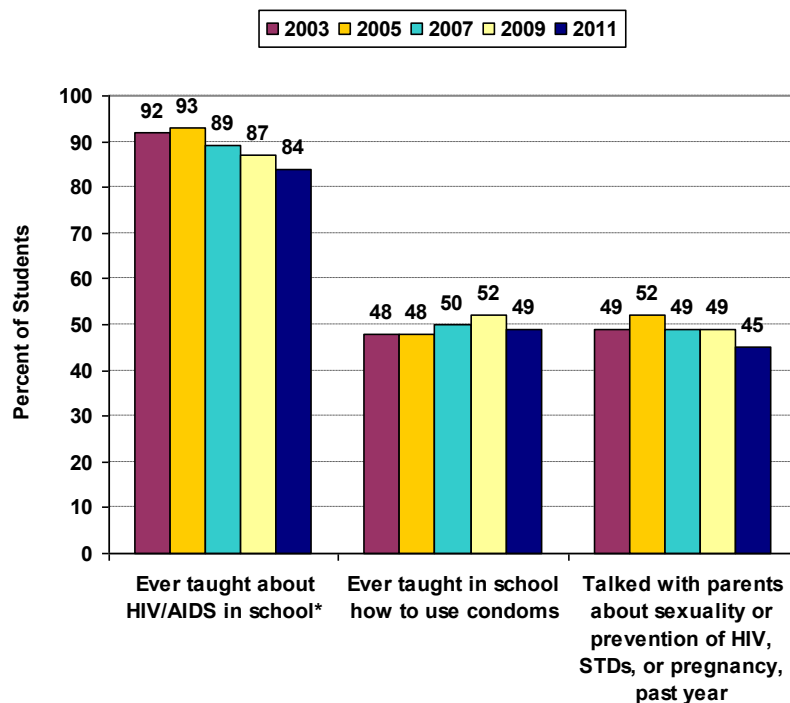


Figure 34: Sexuality Education Among High School Students, 2003-2011 (MYRBS)



(Note: Questions regarding sexual behavior are only asked of high school students) \* Statistically significant increase or decrease over time; (a) recent is defined as within the past three months; (b) among students reporting intercourse in the previous three months

## DISABILITIES AND OTHER HEALTH CONDITIONS

### HIGH SCHOOL STUDENTS

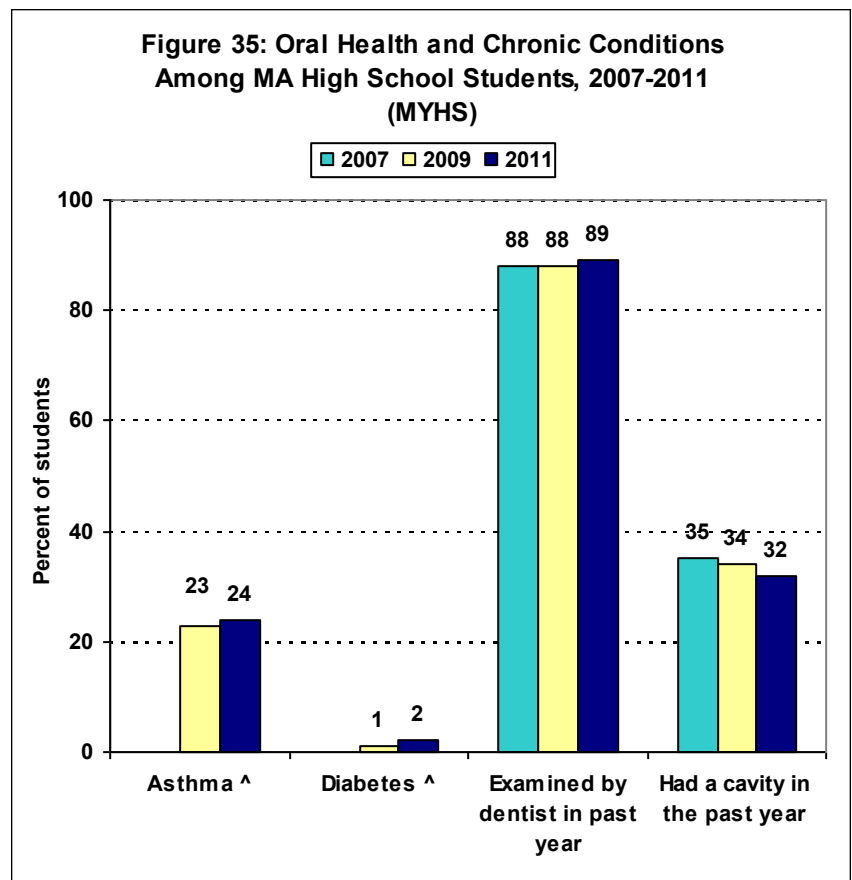
The 2011 Massachusetts Youth Risk Behavior Survey asked students about the presence of any physical disability or long-term health problems and any long-term learning disabilities (long-term was defined as 6 or more months). Nine percent (9%) of students reported having a physical disability or long-term health problem and 7% reported having long-term learning disabilities.

In 2011, 89% of high school students had been seen by a dentist in the past year (MYHS 2011).

Overall, approximately one in three (32%) high school students reported having a cavity in the previous year (MYHS 2011).

Twenty-four percent (24%) of high school students reported ever being told by a health care professional that they had asthma (MYHS 2011).

Two percent (2%) of high school students reported ever being told by a health care professional that they had diabetes (MYHS 2011).



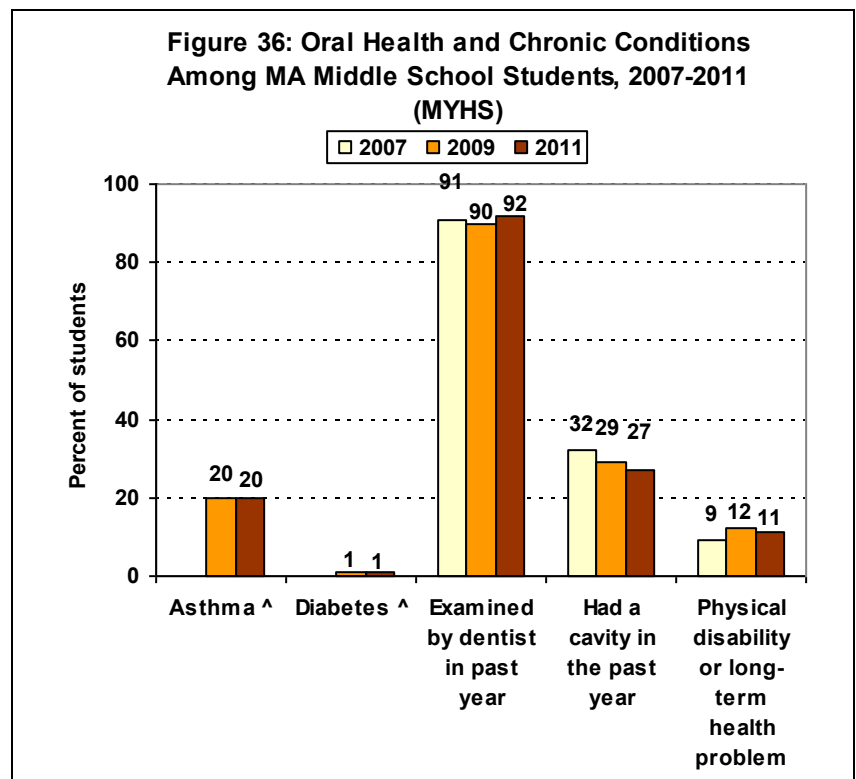
### MIDDLE SCHOOL STUDENTS

In 2011, 92% of middle school students reported having been examined by a dentist in the previous year. More than one quarter (27%) reported having a cavity in a tooth during the previous year.

Twenty percent (20%) of middle school students reported being told by a health care professional that they had asthma.

In 2011, 11% of middle school students reported having a physical disability or long-term health problem.

Overall, one percent (1%) of middle school students reported being told by a health care professional that they had diabetes.



^ Question asked differently in 2007



This document was prepared by the  
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and the  
Massachusetts Department of Public Health

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