

2010

**HIGHLIGHTS FROM THE  
METROWEST ADOLESCENT HEALTH SURVEY**

**METROWEST REGION  
HIGH SCHOOL REPORT**

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# Highlights from the 2010 MetroWest Adolescent Health Survey MetroWest Region High School Report

## BACKGROUND AND METHODOLOGY

The MetroWest Adolescent Health Survey (MWAHS) is an initiative of the MetroWest Community Health Care Foundation to support community efforts to improve the health of youth in the region. Since 2006, middle and high schools have participated in the MWAHS every other year to monitor health and risk behaviors and identify trends and emergent issues. Findings are used by schools and communities to improve health education, inform prevention efforts, and set priorities for achieving a healthier youth population.

The 2010 high school MWAHS was administered to a census of students in grades 9 through 12 in 24 high schools. As in previous survey waves, local procedures were followed to inform parents of the survey and give them the choice to opt out their child(ren). Students were also informed that their participation was voluntary and that no names or other identifying information were being collected. Data collection at each school was guided by a protocol that protected the privacy of students' responses.

In total, 23,187 students in grades 9 through 12 completed the 2010 survey, representing 89% of youth in the 24 participating schools. These data allow, for the first time, an examination of behavioral trends across three timepoints from 2006 to 2010. This report summarizes current youth behaviors on key health indicators in the areas of substance use, violence, bullying, mental health, sexual behavior, and physical activity. Current information is provided by gender and grade, and trends over the three waves of the MWAHS are highlighted.

## SUBSTANCE USE

### CIGARETTE SMOKING

*Cigarette smoking among MetroWest high school students continues to decline: In 2010, 26% of youth reported smoking in their lifetime, compared with 35% in 2006. Both males and females are smoking less.*

- Current cigarette smoking (in the past 30 days) decreased from 15% in 2006 to 12% in 2010.
- Declines in smoking initiation were found for both genders: Lifetime smoking decreased from 32% in 2006 to 22% in 2010 among females, and from 39% to 30% among males.
- Consistent with prior years, cigarette smoking continues to be more prevalent among males than females.
- The percentage of youth smoking in the past 30 days increases during the high school years from 7% in 9<sup>th</sup> grade to 19% in 12<sup>th</sup> grade.
- Cigarette smoking in MetroWest continues to be lower than in Massachusetts and the U.S. The percent of youth who are current smokers is 12% in MetroWest, compared with 16% in the state and 20% in the nation. The regional decline in smoking is consistent with state and national trends.

### ALCOHOL USE AND DRINKING AND DRIVING

*Fewer students are drinking alcohol. In 2010, 35% of youth reported having a drink in the past 30 days, down from 42% in 2006.*

- There are declines in multiple drinking behaviors from 2006 to 2010:
  - Lifetime drinking decreased from 67% to 58%.
  - Binge drinking decreased from 25% to 21%. (Binge drinking is defined as consuming five or more drinks in a row on one or more occasions during the past 30 days.)
  - Riding in a car with a driver who had been drinking in the past 30 days decreased from 25% to 23%.
- Alcohol use decreased among both males and females: For example, current drinking (in the past 30 days) decreased from 42% in 2006 to 34% in 2010 among females and from 42% to 36% among males.
- Drinking continues to rise substantially from 9<sup>th</sup> to 12<sup>th</sup> grade: Current drinking increases from 18% in 9<sup>th</sup> grade to 52% in 12<sup>th</sup> grade, and binge drinking increases from 8% to 35%.
- While the regional decline in alcohol use is consistent with state and national trends, the magnitude of the decline is especially notable in MetroWest. For example, current drinking decreased from 42% to 35% in MetroWest, compared with smaller decreases in Massachusetts (from 48% to 44%) and the U.S. (from 43% to 42%).

## MARIJUANA USE

*Despite decreases in cigarette smoking and alcohol use, marijuana use is on the rise: In 2010, one in four youth (24%) were current marijuana users compared with 20% in 2006.*

- Lifetime marijuana use increased from 33% in 2006 to 35% in 2010.
- The increase in marijuana use is notable only among males: Current marijuana use (in the past 30 days) increased from 24% in 2006 to 30% in 2010 among males, but remained steady at 17% among females.
- While prior surveys also show higher marijuana use among males, the gender difference in marijuana use is greater in 2010 than in earlier years.
- Lifetime marijuana use increases by grade from 17% in 9<sup>th</sup> grade to 53% in 12<sup>th</sup> grade, and current use increases from 11% to 35%.
- While marijuana use increased in MetroWest, it remained steady in the state and nation. Current marijuana use is still lower in MetroWest (24%) than in Massachusetts (27%), but higher than in the U.S. (21%).

## PRESCRIPTION DRUG MISUSE

*Misuse of prescription drugs remains unchanged since 2006. About one in ten high school students has misused prescription drugs in their lifetime.*

- Lifetime misuse of prescription drugs (without a doctor's prescription) remained steady from 2006 to 2010 at 10-11%.
- While there was no decline in overall prescription drug misuse in the region, misuse among females decreased from 10% in 2006 to 8% in 2010, while misuse among males was steady at 12%. Misuse of prescription drugs continues to be higher among males than females, as in past years.
- Lifetime misuse of prescription drugs increases from 5% in 9<sup>th</sup> grade to 17% in 12<sup>th</sup> grade.
- State and national data on prescription drug misuse is not available.

## VIOLENCE

*Physical fighting, both on and off school property, is declining. One in five youth (22%) in 2010 reported being in a physical fight in the past 12 months, compared with 26% in 2006. Despite this decrease in fighting, weapon carrying remains steady at 7-8%.*

## PHYSICAL FIGHTING

- Fighting on school property decreased from 9% in 2006 to 7% in 2010.
- Decreases in reports of physical fighting were found for both males (from 36% to 31%) and females (from 16% to 13%). Still, over twice as many males as females engaged in physical fighting.
- Fighting decreases during the high school years from 24% in 9<sup>th</sup> grade to 19% in 12<sup>th</sup> grade.
- Physical fighting in MetroWest (22%) continues to be lower than in the state (29%) and nation (32%).

## WEAPON CARRYING

- Overall reports of weapon carrying in the past 30 days were steady at 7-8% from 2006 to 2010. Weapon carrying on school property also remained steady at 3%.
- Consistent with gender patterns for fighting, weapon carrying is substantially higher among males (12%) than females (3%).
- Weapon carrying increases slightly in high school from 6% in 9<sup>th</sup> grade to 8% in 12<sup>th</sup> grade.
- Fewer students in MetroWest report weapon carrying (7%) compared with the state (13%) and nation (18%).

## BULLYING

*Reports of bullying and cyberbullying victimization have increased. In 2010, one in three youth (32%) reported they were bullied in the past 12 months, compared with 29% in 2006. One in five youth (20%) were cyberbullied in 2010, compared with 15% in 2006.*

### BULLYING

- Reports of bullying on school property in the past 12 months increased from 26% in 2006 to 28% in 2010.
- Increases in reports of victimization are notable only among females: Overall bullying increased from 30% in 2006 to 37% in 2010 among females, but remained steady at 27% among males. Bullying on school property increased from 26% to 31% among females, but was steady at 25% among males.
- While reports of victimization have always been higher among females, the gender difference is greater in 2010 than in prior years.
- Overall bullying decreases by grade from 37% in 9<sup>th</sup> grade to 26% in 12<sup>th</sup> grade. Bullying on school property also decreases from 33% in 9<sup>th</sup> grade to 23% in 12<sup>th</sup> grade.
- While 32% of students reported they had been bullied in the past 12 months, only 16% reported talking to an adult about being victimized.
- Bullying on school property is higher in MetroWest (28%) compared with Massachusetts (19%) and the nation (20%).

### CYBERBULLYING

- Reports of cyberbullying in the past 12 months increased from 15% in 2006 to 20% in 2010.
- Cyberbullying increased among both genders, but the increase was greater for females (from 17% in 2006 to 26% in 2010) than males (from 12% to 14%).
- In contrast to bullying on school property, reports of cyberbullying do not decrease by grade: The proportion of youth who are cyberbullying victims ranges from 18-21% during the high school years.
- While 20% of students reported that they had been cyberbullied, only 6% had talked to an adult about being victimized.
- “Sexting” is a form of cyberbullying measured for the first time in 2010 (defined as sending or forwarding nude, sexually suggestive, or explicit photos or videos of someone you know using the Internet, cell phones, or electronic communications). 25% of students reported receiving a “sext,” 10% reported sending, forwarding, or posting a “sext,” and 5% were victims of “sexting” (someone sent or posted a photo/video of them).
- State and national data on cyberbullying is not available.

## MENTAL HEALTH

*Reports of mental health problems, including stress, depressive symptoms, self-injury, and suicidality, remained steady from 2006 to 2010.*

- The proportion of students feeling “very” stressed in the past 30 days was steady at 28% from 2006 to 2010. Reports of depressive symptoms were also steady at 19-20%. (Depressive symptoms are defined as feeling sad or hopeless almost every day for two or more weeks during the past 12 months.)
- Self-injury (defined as cutting, burning, or bruising oneself on purpose) was steady at 13-14% from 2006 to 2010.
- There was a small increase in the proportion of youth who seriously considered suicide in the past 12 months from 10% in 2006 to 12% in 2010. Reports of suicide attempts in the past 12 months were steady at 4%.
- As in prior years, stress, depressive symptoms, self-injury, and suicidality are higher among females than males. For example, 24% of females report depressive symptoms compared with 14% of males.
- Reports of stress double from 9<sup>th</sup> grade (19%) to 12<sup>th</sup> grade (39%), and reports of depressive symptoms also increase by grade (from 16% to 22%). Self-injury, suicidal ideation, and suicide attempts are similar throughout the high school years.
- Reports of depressive symptoms are lower in MetroWest (19%) than in Massachusetts (24%) and the U.S. (26%). Suicide attempts in MetroWest (4%) are also lower than in the state (7%) and nation (6%).

## SEXUAL BEHAVIOR

*Sexual initiation is reported by similar proportions of students since 2006. However, there was a decrease in condom use from 2006 to 2010 among sexually active youth.*

- Reports of lifetime sexual intercourse remained steady at 28%-29% from 2006 to 2010. Current sexual activity (sexual intercourse in the past 3 months) was also steady at 22%.
- 26% of females and 31% of males report lifetime sexual intercourse, and 21% of females and 23% of males are currently sexually active.
- By 12<sup>th</sup> grade, nearly half of youth (47%) have had sexual intercourse.
- Reports of lifetime sexual intercourse are consistently lower in MetroWest (28%) than in Massachusetts and the U.S. (both 46%).
- Condom use at last intercourse among sexually active youth decreased from 67% in 2006 to 63% in 2010.
- Among sexually active students, condom use is higher in MetroWest (63%) than in the state (58%) or nation (61%). Recent decreases in the region are consistent with state and national declines.

## PHYSICAL ACTIVITY AND BODY WEIGHT

*More MetroWest youth are meeting current national recommendations for physical activity. In 2010, 45% met the national standards, compared with 34% in 2006. However, the proportion of youth who are overweight or obese did not change.*

### PHYSICAL ACTIVITY

- The proportion of youth who met national physical activity recommendations (physically active for 60 or more minutes on at least five days in the week prior to the survey) increased among both genders from 28% in 2006 to 39% in 2010 among females and from 40% to 52% among males.
- As in prior years, more males than females are physically active.
- There is a substantial decrease in physical activity from 9<sup>th</sup> grade (53%) to 12<sup>th</sup> grade (38%).
- Physical activity in MetroWest (45%) is greater than in Massachusetts (34%) and the U.S. (37%). While physical activity in MetroWest increased in recent years, there was not a similar increase nationally.

### BODY WEIGHT

- The proportion of youth who are overweight or obese remained steady at 19%-20% from 2006 to 2010. (Reports of overweight/obesity are based on self-reported height and weight, which is used to calculate body mass index.)
- While overweight/obesity remained steady for females, a slight decline was found among males (from 26% in 2006 to 24% in 2010).
- More males (24%) than females (15%) are overweight/obese.
- Overweight/obesity is similar throughout the high school years at 18-20%.
- Overweight/obesity is lower in MetroWest (19%) than in the state (25%) and nation (28%). Consistent with regional trends, there have been only slight fluctuations in overweight/obesity in the state and nation in recent years.

## CONCLUSIONS

The third administration of the MWAHS in 2010 provides important data to monitor trends in youth health and risk behaviors. While additional timepoints are important for establishing trends, the 2010 data show several positive and negative findings that can inform regional and local prevention and education efforts:

- There are substantial decreases in alcohol use and cigarette smoking from 2006 to 2010. These declines are consistent with state and national trends, as well as local prevention efforts. However, marijuana use is on the rise.
- Although fewer students are engaging in physical fighting, more students are reporting being victims of bullying and, in particular, cyberbullying. The increase in victimization is especially notable among females.
- Reports of mental health problems are steady and continue to affect substantial proportions of youth.
- There is no change in sexual initiation, yet fewer sexually active youth are using condoms.
- While physical activity is increasing among high school students, there is no change in overweight/obesity.

These findings suggest that the MetroWest region is making significant advances in some behavioral areas, while others demand increased attention. The 2012 MWAHS will provide additional data to further inform school and community efforts to improve the health of high school students in the region.



## MetroWest Region High School Students (Grades 9-12) 2006-2010 Trends in Key Indicators\*

	Year of Survey (%)		
	2006 <i>(16,680)</i>	2008 <i>(20,406)</i>	2010 <i>(23,187)</i>
<b>SUBSTANCE USE</b>			
Lifetime cigarette smoking	35.3	33.3	25.9
Current cigarette smoking (past 30 days)	14.7	13.9	12.1
Lifetime alcohol use	66.5	62.8	58.0
Current alcohol use (past 30 days)	42.2	39.1	34.7
Binge drinking (past 30 days) <sup>†</sup>	25.1	23.2	20.8
Rode with driver who had been drinking (past 30 days)	25.2	25.8	22.5
Lifetime marijuana use	33.2	33.4	34.6
Current marijuana use (past 30 days)	20.2	22.8	23.5
Lifetime prescription drug misuse <sup>‡</sup>	11.0	10.1	10.1
<b>VIOLENCE</b>			
Physical fighting (past 12 months)	26.0	23.9	21.7
Physical fighting on school property (past 12 months)	8.7	8.3	7.4
Carried a weapon (past 30 days)	8.2	7.3	7.3
Carried a weapon on school property (past 30 days)	3.3	3.1	3.0
<b>BULLYING VICTIMIZATION</b>			
Bullying victim (past 12 months)	28.6	29.3	31.8
Bullying victim on school property (past 12 months)	25.5	25.9	28.2
Cyberbullying victim (past 12 months)	14.6	15.8	20.0
<b>MENTAL HEALTH</b>			
Life "very" stressful (past 30 days)	27.9	27.9	28.3
Depressive symptoms (past 12 months)	20.1	20.3	19.1
Self-injury (past 12 months)	13.2	13.2	14.0
Considered suicide (past 12 months)	10.0	10.5	11.6
Attempted suicide (past 12 months)	4.1	4.1	4.0
<b>SEXUAL BEHAVIOR</b>			
Lifetime sexual intercourse	28.9	29.4	28.3
Currently sexually active (past 3 months)	22.3	22.9	21.8
Condom use at last intercourse (among sexually active youth)	66.6	65.0	63.2
<b>PHYSICAL ACTIVITY AND BODY WEIGHT</b>			
Exercised for ≥60 minutes on 5 or more days/week	33.7	33.2	45.3
Overweight or obese <sup>§</sup>	19.9	19.3	19.3

\* Source: MetroWest Adolescent Health Survey

† Consumed 5 or more drinks in a row on one or more occasions

‡ Without a doctor's prescription

§ Students who were ≥85th percentile for body mass index by age and gender, based on reference data

## MetroWest Region High School Students (Grades 9-12) 2010 Gender Patterns for Key Indicators\*

	Gender (%)		Total (%)
	Female (11,513)	Male (11,472)	(23,187)
<b>SUBSTANCE USE</b>			
Lifetime cigarette smoking	22.1	29.5	25.9
Current cigarette smoking (past 30 days)	9.5	14.7	12.1
Lifetime alcohol use	57.5	58.5	58.0
Current alcohol use (past 30 days)	33.8	35.6	34.7
Binge drinking (past 30 days) <sup>†</sup>	18.0	23.6	20.8
Rode with driver who had been drinking (past 30 days)	22.6	22.4	22.5
Lifetime marijuana use	28.8	40.4	34.6
Current marijuana use (past 30 days)	17.4	29.5	23.5
Lifetime prescription drug misuse <sup>‡</sup>	8.0	12.2	10.1
<b>VIOLENCE</b>			
Physical fighting (past 12 months)	12.6	30.6	21.7
Physical fighting on school property (past 12 months)	3.6	11.2	7.4
Carried a weapon (past 30 days)	2.7	12.0	7.3
Carried a weapon on school property (past 30 days)	1.1	4.8	3.0
<b>BULLYING VICTIMIZATION</b>			
Bullying victim (past 12 months)	36.6	26.8	31.8
Bullying victim on school property (past 12 months)	31.1	25.2	28.2
Cyberbullying victim (past 12 months)	25.9	13.8	20.0
<b>MENTAL HEALTH</b>			
Life "very" stressful (past 30 days)	38.1	18.5	28.3
Depressive symptoms (past 12 months)	24.4	13.8	19.1
Self-injury (past 12 months)	19.3	8.6	14.0
Considered suicide (past 12 months)	14.2	9.1	11.6
Attempted suicide (past 12 months)	4.6	3.4	4.0
<b>SEXUAL BEHAVIOR</b>			
Lifetime sexual intercourse	25.8	30.8	28.3
Currently sexually active (past 3 months)	20.9	22.6	21.8
Condom use at last intercourse (among sexually active youth)	60.7	65.4	63.2
<b>PHYSICAL ACTIVITY AND BODY WEIGHT</b>			
Exercised for ≥60 minutes on 5 or more days/week	38.6	52.2	45.3
Overweight or obese <sup>§</sup>	15.1	23.5	19.3

\* Source: MetroWest Adolescent Health Survey

† Consumed 5 or more drinks in a row on one or more occasions

‡ Without a doctor's prescription

§ Students who were ≥85th percentile for body mass index by age and gender, based on reference data

## MetroWest Region High School Students (Grades 9-12) 2010 Grade Patterns for Key Indicators\*

	Grade (%)				Total (%)
	9 <sup>th</sup> (6,156)	10 <sup>th</sup> (5,970)	11 <sup>th</sup> (5,664)	12 <sup>th</sup> (5,241)	
<b>SUBSTANCE USE</b>					
Lifetime cigarette smoking	15.5	22.9	29.1	37.4	25.9
Current cigarette smoking (past 30 days)	6.9	10.3	12.7	19.2	12.1
Lifetime alcohol use	40.2	54.7	65.8	74.2	58.0
Current alcohol use (past 30 days)	17.6	31.2	41.0	51.9	34.7
Binge drinking (past 30 days) <sup>†</sup>	7.5	16.8	25.8	35.4	20.8
Rode with driver who had been drinking (past 30 days)	17.7	21.7	23.6	27.8	22.5
Lifetime marijuana use	16.9	29.7	42.3	52.5	34.6
Current marijuana use (past 30 days)	11.3	20.3	28.8	35.3	23.5
Lifetime prescription drug misuse <sup>‡</sup>	4.9	8.6	11.3	16.7	10.1
<b>VIOLENCE</b>					
Physical fighting (past 12 months)	23.9	22.3	20.9	18.7	21.7
Physical fighting on school property (past 12 months)	8.3	7.4	7.0	6.5	7.4
Carried a weapon (past 30 days)	6.3	7.2	7.8	7.9	7.3
Carried a weapon on school property (past 30 days)	2.0	3.1	3.4	3.4	3.0
<b>BULLYING VICTIMIZATION</b>					
Bullying victim (past 12 months)	36.9	34.5	28.7	25.8	31.8
Bullying victim on school property (past 12 months)	33.0	30.5	25.4	23.0	28.2
Cyberbullying victim (past 12 months)	20.0	21.4	20.1	17.9	20.0
<b>MENTAL HEALTH</b>					
Life "very" stressful (past 30 days)	18.8	25.9	31.4	39.0	28.3
Depressive symptoms (past 12 months)	15.9	19.2	20.1	21.6	19.1
Self-injury (past 12 months)	13.3	15.0	14.0	13.4	14.0
Considered suicide (past 12 months)	10.5	12.4	12.1	11.5	11.6
Attempted suicide (past 12 months)	3.8	4.2	3.9	4.1	4.0
<b>SEXUAL BEHAVIOR</b>					
Lifetime sexual intercourse	13.4	21.9	33.4	47.5	28.3
Currently sexually active (past 3 months)	9.1	16.4	25.8	38.4	21.8
Condom use at last intercourse (among sexually active youth)	66.9	64.1	64.5	60.9	63.2
<b>PHYSICAL ACTIVITY AND BODY WEIGHT</b>					
Exercised for ≥60 minutes on 5 or more days/week	53.1	47.4	41.5	38.1	45.3
Overweight or obese <sup>§</sup>	20.2	20.0	18.6	18.1	19.3

\* Source: MetroWest Adolescent Health Survey

† Consumed 5 or more drinks in a row on one or more occasions

‡ Without a doctor's prescription

§ Students who were ≥85th percentile for body mass index by age and gender, based on reference data

