

# MetroWest Adolescent Health Survey Regional Highlights Report

*Informing data-driven school and community  
health policies and practices*



# 2018

## MetroWest Region Middle School Youth

### GRADES 7-8



**METROWEST  
HEALTH  
FOUNDATION**



Spring 2019

Funded by:  
MetroWest Health Foundation

Submitted by:  
Education Development Center, Inc.

# Highlights from the 2018 MetroWest Adolescent Health Survey

## MetroWest Region Middle School Report

### Background

---

The MetroWest Adolescent Health Survey (MWHAS), an initiative of the MetroWest Health Foundation, signifies a deep commitment to improving adolescent health and wellness by supporting data-driven advancements in prevention efforts, programs, and policies. The 2018 survey is the 7<sup>th</sup> administration of the MWAHS, which has been administered every other year since 2006 in the region served by the MetroWest Health Foundation. In 2018 alone, over 41,000 middle and high school students in all 25 communities in the region participated in the survey. By monitoring trends in adolescent health and risk behaviors for well over a decade, the survey data has strengthened the efforts of schools and communities to better understand, prioritize, and address the most pressing physical and mental health challenges facing youth today.

### Methodology

---

The 2018 middle school MWAHS was administered to a census of students in grades 7 and 8 in 32 middle schools across 25 communities in the MetroWest region served by the MetroWest Health Foundation. 19 school districts chose to include 6<sup>th</sup> grade students as well; these findings are described in a separate report. As in previous survey waves, local procedures were followed to inform parents/guardians 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, 12,107 students in grades 7 and 8 completed the 2018 survey, representing 92% of youth. This report summarizes current youth behaviors on key health indicators in the areas of substance use, violence, bullying, mental health, and physical activity, including new information on emerging trends such as use of electronic vapor products (including e-cigarettes) and areas of heightened concern, such as stress and anxiety, and social media use. The data allow for an examination of behavioral trends across seven time points from 2006 to 2018. Current data from 2018 are provided by sex and grade, and trends over the seven waves of the MWAHS are highlighted.

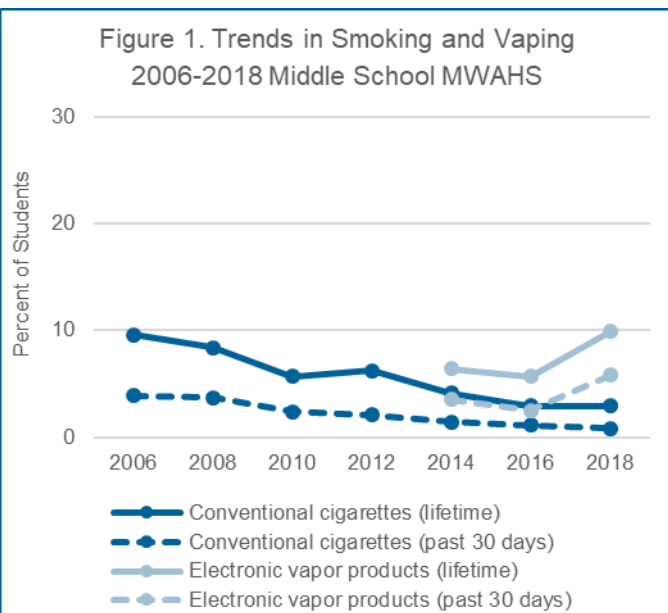
## Key Findings: Substance Use

### Cigarette Smoking and Use of Electronic Vapor Products

*While few middle school students report lifetime or current use of conventional cigarettes, there has been a rise in use of electronic vapor products (EVPs), including e-cigarettes. One in ten middle school youth in the region (10%) have tried EVPs in their lifetime, up from 6% two years ago. This increase is consistent with national data.<sup>1</sup>*

#### Cigarette Smoking (Conventional)

- » Lifetime cigarette smoking decreased from 10% in 2006 to 3% in 2016 and remained at that level in 2018 [Figure 1].
- » Current cigarette smoking (in the past 30 days) decreased steadily from 4% in 2006 to just under 1% in 2018. Both females and males report less smoking in 2018 than in prior years.
- » While smoking prevalence is low overall, males are more likely to experiment with cigarettes than females (4% vs. 2%).
- » Lifetime use increases from 2% in 7<sup>th</sup> grade to 4% in 8<sup>th</sup> grade.
- » Lifetime smoking is lower among MetroWest 8<sup>th</sup> grade students (4%) compared with 8<sup>th</sup> grade students in Massachusetts (6%)<sup>2</sup> and the nation (9%).<sup>3</sup> The decline in smoking is consistent with state data, as well as national trends among 8<sup>th</sup> grade youth from the Monitoring the Future study.<sup>3</sup>



#### Electronic Vapor Products\*

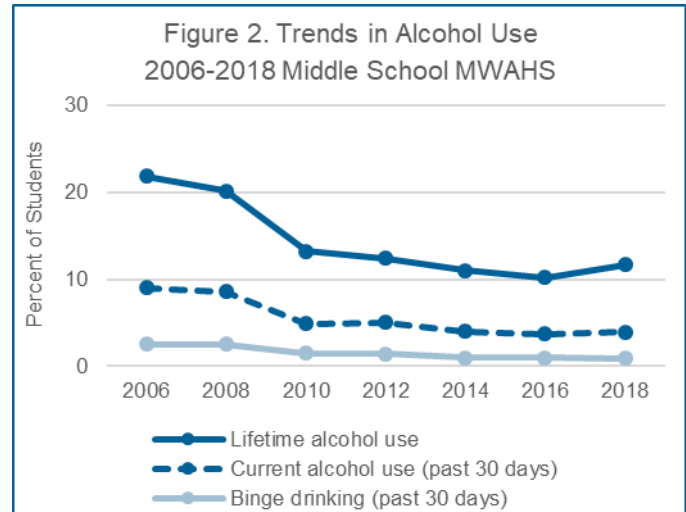
- » One in ten middle school youth (10%) have tried EVPs at least once, increasing from 6% in 2016.
- » 6% of youth have used EVPs in the past 30 days, up from 2% in 2016.
- » While EVP use increased substantially among both sexes, the increase was greater among females. From 2016 to 2018, lifetime use doubled from 4% to 9% among females and increased from 7% to 11% among males. Current EVP use increased from 2% to 6% among females, and from 3% to 6% among males.
- » 2% of middle school youth have used EVPs on school property in the past 30 days.
- » Initiation of EVP use more than doubles from 7<sup>th</sup> grade (6%) to 8<sup>th</sup> grade (14%).
- » More than three-quarters of youth (80%) perceive moderate or great risk to using EVPs, up from 64% in 2014. Despite more EVP use, this increase in risk perception is positive in the context of prevention efforts.
- » Lifetime EVP use among 8<sup>th</sup> grade youth in MetroWest (14%) is similar to Massachusetts levels (15%)<sup>2</sup> and lower than national levels (19%).<sup>3</sup> The recent increase in EVP use among middle school youth in the region is consistent with findings from the National Youth Tobacco Survey.<sup>1</sup>

\* Electronic vapor products (EVPs) include electronic cigarettes (e-cigarettes) like JUUL, Phix, Vuse, MarkTen, and blu, and other electronic vapor products, like vapes, vape pens, e-cigars, e-hookahs, hookah pens, and mods.

## Alcohol Use

*After dropping by more than half from 2006 to 2016, reports of alcohol use among MetroWest middle school youth have not changed substantially over the last two years. While lifetime use is slightly higher in 2018, current use and binge drinking have remained similar in recent surveys.*

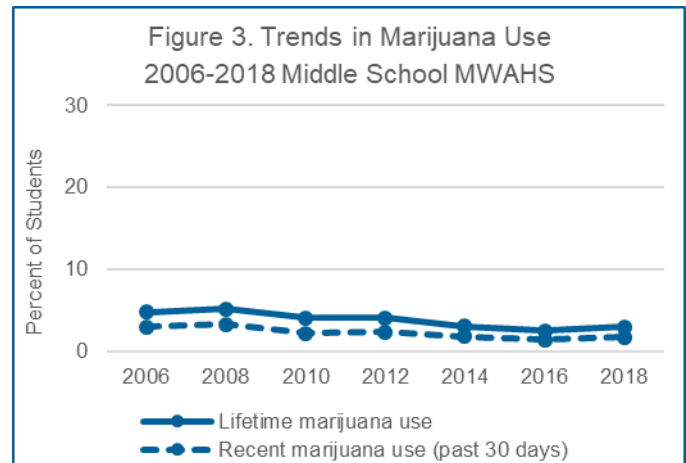
- » After steadily decreasing from 22% in 2006 to 10% in 2016, lifetime alcohol use is reported by 12% of middle school students in 2018 [Figure 2].
- » Current drinking decreased from 9% in 2006 to 4% in 2014 and has levelled over the past two surveys.
- » Binge drinking has remained at 1% over the past four surveys, down from 3% in 2006.
- » Current drinking is similar by sex, reported by 4% of both males and females in 2018.
- » Lifetime alcohol use increases from 9% in 7<sup>th</sup> grade to 15% in 8<sup>th</sup> grade.
- » 1% of youth have ever ridden in a car driven by a high school student who had been drinking.
- » Reports of drinking in MetroWest continue to be lower than in Massachusetts and the nation. For example, 15% of 8<sup>th</sup> grade youth in the region report ever drinking alcohol, compared with 19% of 8<sup>th</sup> grade youth statewide<sup>2</sup> and 23% of 8<sup>th</sup> grade youth nationally.<sup>3</sup>



## Marijuana Use

*The proportion of students who have tried marijuana decreased from 5% in 2006 to around 3% in 2014 and has remained similar over the last two surveys. It will important to monitor use in the coming years in the context of marijuana legalization in the state.*

- » There has been a notable decrease in lifetime marijuana use among males (from 6% in 2006 to 3% in 2018), whereas use among females has been similar at 2-3%.
- » Current marijuana use has been similar at 1-2% since 2010, decreasing slightly from 3% in 2006 [Figure 3].
- » 2% of males and 1% of females report current marijuana use in 2018.
- » A small proportion of youth initiate marijuana use in middle school: From 7<sup>th</sup> grade to 8<sup>th</sup> grade, lifetime use increases from 1% to 5%, and current use increases from 1% to 3%.
- » More than four out of five youth (84%) believe that using marijuana is of “moderate” or “great” risk. Perception of risk is higher among females than males (88% vs. 80%) and decreases from 7<sup>th</sup> grade (87%) to 8<sup>th</sup> grade (81%).
- » A smaller proportion of MetroWest 8<sup>th</sup> grade youth have used marijuana in their lifetime (5%) compared with the state (9%)<sup>2</sup> and the nation (10%).<sup>3</sup>

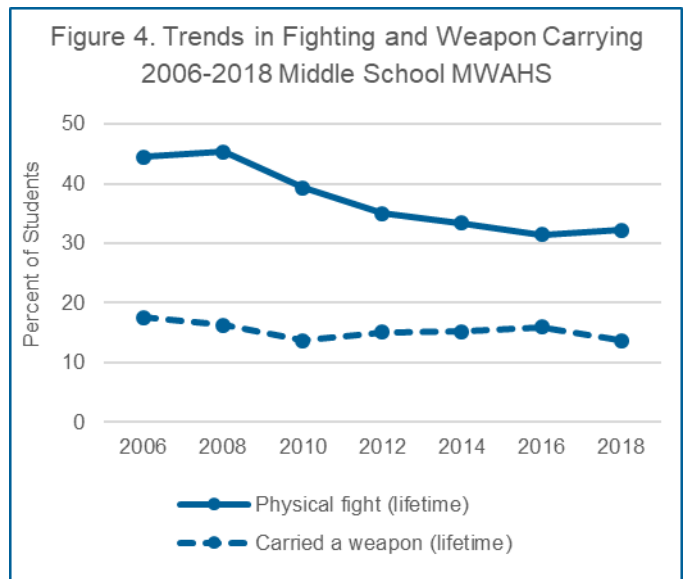


## Key Findings: Violence

*Lifetime reports of physical fighting are steady in 2018 at 32% after declining considerably in the early years of the MWAHS. Reports of weapon carrying are lower in 2018 than in recent surveys.*

### Physical Fighting

- » The proportion of youth who have ever been in a physical fight decreased from a high of 45% in 2006-2008 to 32% in 2018. [Figure 4].
- » 11% of youth report fighting on school property in their lifetime. This is slightly higher than 2012-2016 levels (9-10%), but still substantially lower than in 2006 (19%).
- » There are substantial declines in fighting among females and males. For example, lifetime fighting decreased from 63% in 2006 to 47% in 2018 among males, and from 26% to 17% among females.
- » Reports of fighting remain nearly three times higher among males than females both overall (47% vs. 17%), and on school property (18% vs. 4%).
- » Lifetime reports of fighting do not differ notably from 7<sup>th</sup> grade to 8<sup>th</sup> grade.



### Weapon Carrying

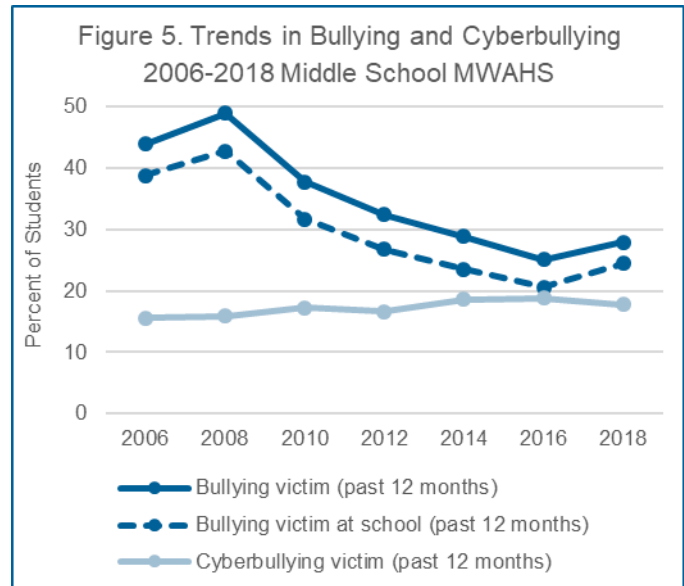
- » 14% of youth have carried a weapon in their lifetime, down from 2006 when 18% reported carrying a weapon [Figure 4].
- » 5% of youth have carried a weapon in the past 30 days.
- » Weapon carrying has declined notably among males (from 28% in 2006 to 21% in 2018), and has been in the range of 5-7% among females over the last decade.
- » Weapon carrying on school property declined from 3% in 2006 to 1% in 2010 and has stayed at this level.
- » Consistent with gender patterns for physical fighting, overall reports of weapon carrying are three times higher among males than females (21% vs. 7%).
- » Lifetime reports of carrying a weapon are similar by grade.

## Key Findings: Bullying and Cyberbullying

*After declining steadily from a high of 43% in 2008 to 21% in 2016, reports of bullying on school property in 2018 are now somewhat higher at 25%, with this increase primarily due to an increase among females. Reports of cyberbullying have levelled at 18%, after a small rise from 16% in 2006 to 19% in 2016. Future surveys will help determine whether these data represent new trends in bullying behavior.*

### Bullying

- » 2018 reports of overall bullying victimization are somewhat higher than 2016 (28% vs. 25%), but still far lower than the peak in 2008 (49%) [Figure 5].
- » The increase in school bullying victimization is driven by females: From 2016 to 2018, reports rose from 21% to 27% among females, compared to a smaller increase among males (from 20% to 22%).
- » 9% of males and 6% of females report bullying someone else in the past 12 months, and 6% of males and 4% of females did so on school property.
- » Reports of bullying victimization on school property are similar in 7<sup>th</sup> and 8<sup>th</sup> grades at 24-25%.
- » 14% of youth report being verbally harassed in the past 12 months due to their race, ethnicity or culture, 6% due to their sexual orientation or gender identity, 6% due to a disability they have or others think they have, and 29% due to their appearance (height, weight, or how they look). These numbers are somewhat similar to 2016, when these data were first collected.
- » Youth with physical and/or learning disabilities are at heightened risk of victimization: 39% have been bullied at school in the past year, compared to 22% of youth without disabilities.
- » Many victims do not seek help from adults. Among students bullied at school in the past year, fewer than half (40%) talked to a school adult and 60% talked to a parent or adult outside of school about being bullied.
- » One in three youth (34%) tried to stop a student from bullying someone else at school in the past 12 months, and 15% told an adult at school that someone was being bullied.
- » School bullying among 8<sup>th</sup> grade youth in MetroWest (24%) is lower than among 8<sup>th</sup> grade youth in Massachusetts (30%).<sup>2</sup>



### Cyberbullying

- » Reports of cyberbullying victimization in the past 12 months increased from 16% in 2006 to 19% in 2014-2016, and levelled at 18% in 2018 [Figure 5].
- » Cyberbullying is higher among females in 2018 (22%) compared with 2006 (18%), whereas reports among males are the same in 2006 and 2018 (13%).
- » Cyberbullying victimization increases slightly by grade, from 17% in 7<sup>th</sup> grade to 19% in 8<sup>th</sup> grade.
- » 6% of females and 5% of males report cyberbullying someone else in the past year.
- » The vast majority of cyberbullying victims do not seek help from adults: Among students who were cyberbullied in the past year, only one in five (18%) had talked to an adult at school and 36% had talked to a parent or other

adult outside of school about being cyberbullied. These numbers are substantially lower than those reported by school bullying victims.

- » 15% of youth tried to stop a student from cyberbullying someone else (18% of females and 11% of males). 4% took action by telling an adult at school that someone was being cyberbullied, and 8% told a parent or other adult outside of school.
- » While school bullying in MetroWest is lower than in Massachusetts, cyberbullying is higher: 19% of MetroWest 8<sup>th</sup> grade youth report being cyberbullied in the past year, compared with 15% of Massachusetts 8<sup>th</sup> grade youth.<sup>2</sup>

## Key Findings: Mental Health

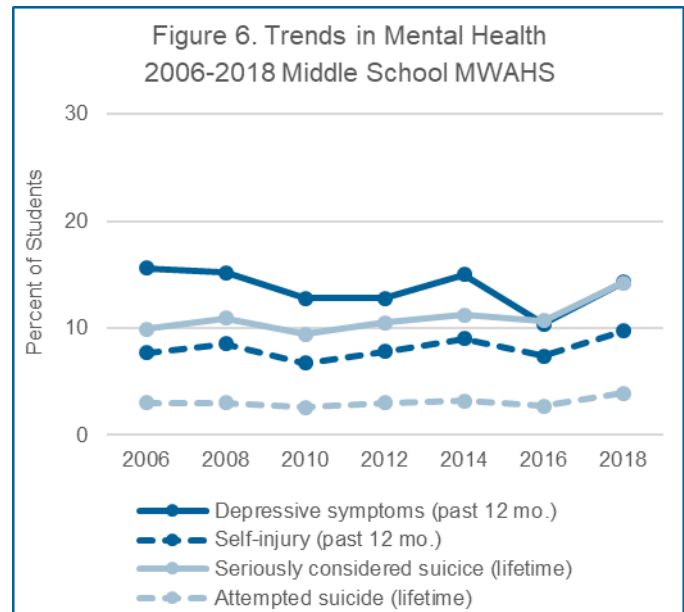
*Reports of stress, as well as more serious mental health problems like depressive symptoms, self-injury, and suicidal thoughts, are higher in 2018. While both females and males report higher levels of mental health problems, increases are greater among females. This is consistent with national reports, including concerns that youth may be experiencing mental health problems at younger ages than before.*

### Stress and Anxiety

- » Reports of feeling life was “very” stressful in the past 30 days increased from 13% in 2006 to 16% in 2016, and then rose again to 20% in 2018.
- » From 2016 to 2018, the proportion of females experiencing high levels of stress increased from 20% to 27%, while remaining similar at 11-12% among males.
- » Stress increases by grade, from 16% in 7<sup>th</sup> grade to 23% in 8<sup>th</sup> grade.
- » Stress related to school issues is most common, reported by 50% of youth (up from 44% in 2016), followed by stress related to social issues (25%, up from 19% in 2016), and stress related to appearance issues (23%, up from 18% in 2016). Stress due to family issues and physical and/or emotional health has also increased.
- » Reports of stress are substantially higher for females than males. For example, 61% of females and 39% of males report stress due to school issues, and 34% of females and 15% of males report stress related to social issues.
- » Nearly one in four students (23%) reports feeling nervous, anxious, or on edge on at least half the days in the past two weeks, and 18% report feeling unable to stop or control worrying. Reports of anxiety symptoms are more than twice as high among females as males and increase from 7<sup>th</sup> to 8<sup>th</sup> grade. 2018 is the first year that these data on symptoms of anxiety were collected.
- » About one in five youth (23%) report feeling tired or having little energy, 21% report having trouble falling/staying asleep or sleeping too much, 21% having trouble concentrating in school, and 15% report eating problems (having a poor appetite or eating too much). These findings suggest stress and anxiety are impacting students’ physical health and academic engagement, in addition to their mental wellness.

## Depressive Symptoms, Self-Injury, and Suicidality

- » After declining from 16% in 2006 to 10% in 2016, reports of depressive symptoms in the past 12 months are higher in 2018 at 14% [Figure 6].\* Reports increased among both females (from 13% in 2016 to 18% in 2018) and males (from 7% to 10%).
- » Self-injury, which ranged from 7-9% in past surveys, was reported by 10% of youth in 2018.<sup>†</sup> Reports increased more among females (from 10% in 2016 to 13% in 2018) than males (from 5% to 6%).
- » After remaining steady at 11% since 2012, lifetime reports of seriously considering suicide increased to 14% in 2018. Reports increased more from 2016 to 2018 among females (from 13% to 17%) than males (from 9% to 11%).
- » 4% of youth report attempting suicide in their lifetime in 2018; in prior surveys, reports ranged from 2-3%.
- » Reports of mental health problems continue to be much higher among females than males. About twice as many females as males report depressive symptoms (18% vs. 10%) and self-injury (13% vs. 6%), and more females also report seriously considering suicide (17% vs. 11%).
- » Reports of these mental health problems increase from 7<sup>th</sup> grade to 8<sup>th</sup> grade.
- » Youth with physical and/or learning disabilities are at higher risk of mental health problems. These youth are about twice as likely as youth without disabilities to report depressive symptoms (25% vs. 13%), self-injury (19% vs. 8%) and seriously considering suicide (26% vs. 12%).
- » Many students experiencing mental health problems are not receiving mental health services. Among students reporting depressive symptoms, 37% talked to a school counselor, therapist, or psychologist at school, and 12% talked to a school nurse. 32% of students with depressive symptoms talked to a therapist, psychologist, or other mental health professional outside of school.
- » Despite higher levels of mental health problems in 2018 than prior years, reports of some indicators continue to be lower in MetroWest compared with the state: 15% of 8<sup>th</sup> grade MetroWest youth report depressive symptoms, compared with 19% of 8<sup>th</sup> grade youth in Massachusetts. Reports of self-injury are also lower in MetroWest than in the state (11% vs. 15%).<sup>2</sup>



\* Depressive symptoms are defined as feeling sad or hopeless almost every day for two or more weeks during the past 12 months

<sup>†</sup> Self-injury is defined as cutting, burning, or bruising oneself on purpose in the past 12 months.

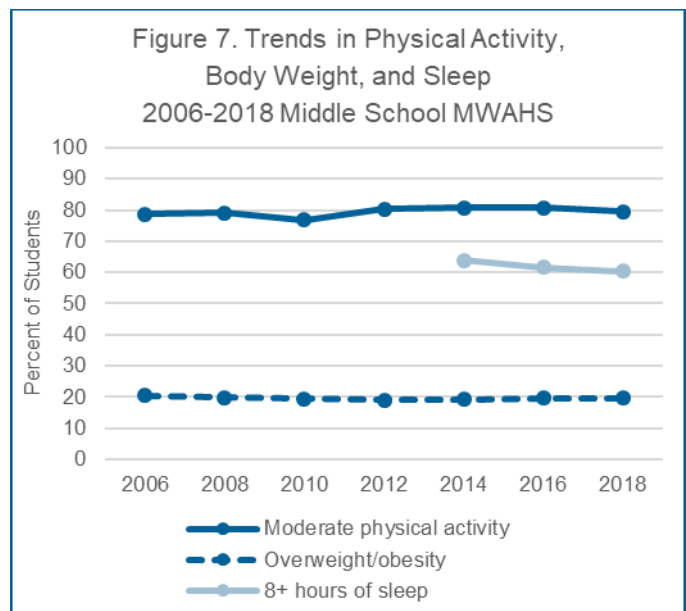


# Key Findings: Physical Activity, Overweight/Obesity, and Sleep

*Student reports of physical activity and overweight/obesity have been stable since the MWAHS began. In 2018, 80% of students engaged in vigorous physical activity on 3 or more days per week, and one in five youth (20%) were overweight or obese. However, only three in five youth (60%) get eight or more hours of sleep per night, down from 64% in 2014.*

## Physical Activity

- » Reports of vigorous physical activity on three or more days per week have been steady at 80-81% since 2012 [Figure 7].\* More males (82%) than females (77%) report this level of physical activity, and reports are similar by grade.
- » 58% of youth report moderate physical activity for at least 60 minutes per day on five or more days per week (63% of males, and 52% of females).†
- » 7% of both females and males report no moderate physical activity in the past seven days.
- » Reports of vigorous physical activity among 8<sup>th</sup> grade youth are slightly higher in MetroWest (79%) compared with 8<sup>th</sup> grade youth in Massachusetts (76%).<sup>2</sup>



## Overweight/Obesity

- » The proportion of youth who are overweight or obese has been steady at 19-20% since 2006 [Figure 7].‡
- » Consistent with prior years, males are more likely than females to be overweight/obese (23% vs. 16%).
- » The prevalence of overweight/obesity is slightly higher in 8<sup>th</sup> grade (21%) than 7<sup>th</sup> grade (18%).
- » Fewer 8<sup>th</sup> grade youth in MetroWest are overweight/obese (20%) compared with 8<sup>th</sup> grade youth in Massachusetts (25%).<sup>2</sup>

## Sleep

- » Only three out of five youth (60%) get eight or more hours of sleep on an average school night. This is somewhat lower than 2014 levels (64%), when these data were first collected [Figure 7].
- » Males are more likely to get eight or more hours of sleep (65%) than females (58%).
- » The proportion of youth that get eight or more hours of sleep decreases notably in middle school from 67% in 7<sup>th</sup> grade to 54% in 8<sup>th</sup> grade.

\* Vigorous physical activity is defined as exercising for at least 20 minutes that makes you sweat and breathe hard on three or more of the past seven days.

† Moderate physical activity is defined as activity that increases your heart rate and makes you breathe hard for at least one hour on five or more of the past seven days.

‡ Reports of overweight/obesity are based on self-reported height and weight, which is used to calculate body mass index. Overweight/obesity is defined as being in the 85<sup>th</sup> percentile or above for body mass index by age and gender, based on reference data.

- » As noted earlier, 21% of youth – representing 28% of females and 14% of males – report sleeping issues related to being stressed, anxious, or worried.
- » Youth who sleep less than eight hours per night are around three times more likely than who sleep eight or more hours per night to report poor mental health, including depressive symptoms (24% vs. 8%), self-injury (16% vs. 6%), and seriously considering suicide (23% vs. 8%).
- » Despite a decline in sleep time in the region, a higher proportion of MetroWest 8<sup>th</sup> grade youth get eight or more hours of sleep (54%) than Massachusetts youth overall (46%).<sup>2</sup>

## Key Findings: Online Behavior

*The proportion of youth spending three or more hours online on the average school day nearly tripled from 2010 (17%) to 2018 (49%). Nearly one in five youth (18%) now spend three or more hours daily on social media.*

- » Increases in overall time spent online are substantial and similar for both sexes: High use (three or more hours daily) nearly tripled from 18% in 2006 to 52% in 2018 among females and from 17% to 46% among males.
- » Differences in online behaviors by sex are notable: Females are more likely than males to spend three or more hours on social media (23% vs. 14%), but males are much more likely to spend three or more hours playing online games, known as “gaming” (26% vs. 5%).
- » Youth report both positive and negative attitudes towards social media. On the positive side, social media helps youth feel more connected to peers (54%), provides a source of social support (32%), and helps them find people with common interests and hobbies (53%). On the negative side, social media makes a sizeable minority of students feel badly about themselves or excluded (20%), keeps them from doing important things like homework or family responsibilities (20%), and has hurt relationships with peers (11%).
- » 30% of all youth feel they spend too much time on social media (38% of females and 21% of males).
- » Youth who spend three or more hours on social media daily are twice as likely as youth who spend less time to report cyberbullying victimization (33% vs. 14%) and perpetration (14% vs. 4%).
- » Youth who spend more time on social media are more likely to report substance use and mental health problems. For example, high users of social media are more likely to report lifetime alcohol use (25% vs. 9%) and marijuana use (8% vs. 2%) than lower users. They are also more than twice as likely to report depressive symptoms (28% vs. 11%) and seriously considering suicide (26% vs. 12%).

## Key Findings: Protective Factors

*More than seven out of ten youth (72%) have an adult at school to talk to if they have a problem, an increase from 63% in 2006. Despite the availability of school support, reports of school attachment are lower in 2018. Outside of school, more than nine out of ten youth (92%) have a supportive parent or other adult, findings consistent with prior surveys.*

### Adult Support

- » Availability of adult support outside of school (from parents or other adults) increased from 89% in 2006 to 92% in 2018.\*
- » Adult support, both at school and outside of school, is similar by sex and grade.
- » While most youth have adult support in their lives, youth without adult support – either at school and/or outside of school – are more likely to engage in multiple risk behaviors. For example, youth lacking adult support outside of school are more likely to report lifetime alcohol use (26% vs. 10%), lifetime marijuana use (9% vs. 3%), school bullying victimization (36% vs. 24%), and depressive symptoms (40% vs. 12%).

### School Attachment and Engagement

- » About two-thirds of youth report being engaged in and connected with their school, as indicated by their agreement with statements such as, “I feel close to people at this school” (73%), “I am happy to be at this school” (62%), and “I feel safe in my school” (74%).
- » While levels of school attachment have been similar across prior surveys, several indicators are lower in 2018. For example, the proportion of students reporting that they feel happy to be at their school decreased from 72% in 2016 to 62% in 2018, and the proportion reporting that they feel like a part of their school decreased from 76% to 67%. In addition, student reports of feeling safe in school decreased from 84% to 74%; this may reflect feelings of physical and/or emotional safety, which may, in turn, be related to national concerns regarding school safety.
- » Across earlier time points, reports of school attachment have not differed substantially by sex. However, the declines from 2016 to 2018 have been greater among females than males. As a result, 2018 reports of school attachment are higher among males than females: For example, 71% of males and 64% of females report feeling like a part of their school, and 65% of females and 59% of males feel happy to be at their school.
- » Reports of school attachment are lower in 8<sup>th</sup> grade than 7<sup>th</sup> grade.
- » Youth with lower levels of school attachment are more likely to report harmful behaviors, including substance use, fighting, bullying, and mental health problems.

---

\* Adult support outside of school is defined as having at least one parent or other adult outside of school to talk to about things that are important.

## Conclusions

---

Now having completed the 7<sup>th</sup> administration, the MWAHS is an invaluable tool for guiding schools and communities across the region to take data-driven approaches to improve adolescent health. The 2018 survey data identifies areas of concern while also highlighting important progress that has been made.

Steady and positive improvement is reported in many areas, showing considerable progress in some critical aspects of adolescent health:

- » Use of conventional cigarettes has continued to decline to the lowest prevalence since the MWAHS began. Despite growing concerns about nicotine addiction related to use of EVPs, the region has not seen a rise in conventional smoking. While always low in the region, conventional smoking is now less than one-third the prevalence it was in 2006.
- » Alcohol use has dropped substantially over more than a decade, with current and binge drinking remaining at the lowest levels reported since 2006. While initiation of alcohol use continues to be a concern in the middle school grades and beyond, great progress has been made in delaying initiation and preventing associated risk behaviors among young adolescents.

The 2018 data suggest that the following areas need to be monitored closely; these are areas of increasing interest based on the MWAHS data as well as issues drawing concern locally and nationally:

- » Use of EVPs has quickly emerged as a prevalent and unsafe behavior in MetroWest as well as nationally. In MetroWest middle schools, lifetime use of EVPs during middle school is now almost as high as lifetime alcohol use, and current use now surpasses current alcohol use. While the health effects of nicotine addiction on the developing adolescent brain have been known for some time, evidence is building regarding the potentially harmful effects of other chemicals inhaled through EVPs.<sup>4</sup> On a positive note, perceptions of risk of EVP use have also increased, as educators and policymakers take action to curb youth use, such as increasing prevention programming and banning sales of flavored e-cigarettes.
- » Marijuana use should be monitored closely as the state adjusts to legalization of recreational cannabis, which went into effect in December, 2016. While lifetime and current use remain very low in middle school, it will be important to examine patterns of young adolescents' use, including ease of access, methods of access, and perception of risk as the environment changes.
- » School bullying victimization increased from 2016 to 2018, after a previous decline. While reports of bullying at school are still much lower than when they peaked in 2008, the directional shift is notable, especially when considered along with a decrease in reports of school attachment. It is important to monitor patterns of bullying and other school violence over time, especially in light of national concerns about school safety and the influence of social media on bullying and other aggressive behaviors.
- » Time spent online has nearly tripled since 2010. It is essential to consider not only this increase in quantity but also the quality of online experiences – both positive and negative – and how increases in time online are related to recent decreases in adolescent sleep. While cyberbullying levelled in the last survey, it will be critical to continue monitoring online behaviors as well as their associations with various benefits and harms, including cyberbullying, mental health problems, and lack of sleep.

» Mental health remains a top concern in the region, and there are notable increases in the proportions of young female adolescents, in particular, who experience relatively high levels of stress, anxiety, and depressive symptoms. More than one in four females and one in ten males report that their life has been “very stressful” in the past 30 days, and there have been slight increases in depressive symptoms, self-injury and suicidality. Further, many youth suffering from mental health problems are not seeking help from adults, either at school or outside of school. While the influences on teen mental health are varied and complex, efforts like mental health screening, wellness programming, transition programs for students returning to school after hospitalization, and coordination of school and community mental health programs and services are important in addressing concerns about adolescent mental health in the region.

In sum, the 7<sup>th</sup> administration of the MWAHS in 2018 shows substantial and meaningful progress in reducing harm among adolescents, as well as identifying areas requiring consistent and increased efforts. The MWAHS continues to draw attention to the most pressing health issues during early adolescence, and provides data to inform sound decision-making and programming that meets the unique needs of individual schools and communities. The MetroWest Health Foundation supports local efforts in all 25 communities, stimulating positive changes in adolescent health and wellness.

## References

- <sup>1</sup> Cullen, K. A., Ambrose, B. K., Gentzke, A. S., Apelberg, B. J., Jamal, A., & King, B. A. (2018, November 16). Notes from the field: Use of electronic cigarettes and any tobacco product among middle and high school students — United States, 2011-2018. *Morbidity and Mortality Weekly Report (MMWR)* 2018, 67, 1276-1277. doi:10.15585/mmwr.mm6745a5
- <sup>2</sup> Massachusetts Department of Elementary and Secondary Education and Massachusetts Department of Public Health. (2018). Health and Risk Behaviors of Massachusetts Youth (Data Tables), 2017. Retrieved from <http://www.doe.mass.edu/sfs/yrbs/2017data-tables.docx>
- <sup>3</sup> Johnston, L. D., Miech, R. A., O'Malley, P. M., Bachman, J. G., Schulenberg, J. E., & Patrick, M. E. (2018). Monitoring the Future national survey results on drug use: 1975-2017. Ann Arbor: Institute for Social Research, The University of Michigan. Retrieved from <http://www.monitoringthefuture.org/pubs/monographs/mtf-overview2017.pdf>
- <sup>4</sup> U.S. Department of Health and Human Services. E-cigarette Use Among Youth and Young Adults: A report of the Surgeon General—Executive Summary. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2016.

# **Middle School Key Indicators**

2006–2018 Trends  
2018 Patterns by Sex  
2018 Patterns by Grade

# MetroWest Region Middle School Students (Grades 7-8)

## 2006-2018 Trends in Key Indicators

### MetroWest Adolescent Health Survey

	Year of Survey (%)						
	2006 (6,875)	2008 (10,650)	2010 (11,597)	2012 (12,224)	2014 (12,191)	2016 (12,307)	2018 (12,107)
<b>SUBSTANCE USE</b>							
Lifetime cigarette smoking	9.6	8.4	5.7	6.2	4.1	2.9	2.9
Current cigarette smoking (past 30 days)	3.9	3.7	2.4	2.1	1.4	1.1	0.8
Lifetime electronic vapor product use*	–	–	–	–	6.4	5.7	9.9
Current electronic vapor product use (past 30 days)*	–	–	–	–	3.5	2.5	5.8
Lifetime alcohol use	21.9	20.2	13.2	12.4	11.0	10.2	11.7
Current alcohol use (past 30 days)	9.0	8.6	4.9	5.0	4.0	3.7	3.9
Binge drinking (past 30 days) <sup>†</sup>	2.5	2.5	1.5	1.4	1.0	1.0	0.9
Lifetime marijuana use	4.8	5.2	4.1	4.1	3.1	2.5	3.0
Current marijuana use (past 30 days)	3.0	3.3	2.2	2.4	1.8	1.4	1.7
Lifetime inhalant use	8.3	7.1	5.2	4.2	3.0	2.6	3.5
<b>VIOLENCE</b>							
Physical fighting (lifetime)	44.5	45.3	39.3	35.0	33.4	31.5	32.2
Physical fighting on school property (lifetime)	18.9	16.8	12.4	9.8	9.4	9.4	11.1
Carried a weapon (lifetime)	17.6	16.3	13.7	15.1	15.2	16.0	13.7
Carried a weapon on school property (lifetime)	3.3	2.5	1.4	1.4	1.1	1.0	0.8
<b>BULLYING VICTIMIZATION</b>							
Bullying victim (past 12 months)	43.9	48.9	37.7	32.4	28.8	25.1	27.9
Bullying victim on school property (past 12 months)	38.8	42.7	31.7	26.7	23.5	20.6	24.5
Cyberbullying victim (past 12 months)	15.6	15.9	17.2	16.6	18.6	18.8	17.8
<b>MENTAL HEALTH</b>							
Life "very" stressful (past 30 days)	13.3	13.6	12.1	12.5	14.1	15.6	19.8
Depressive symptoms (past 12 months)	15.6	15.2	12.8	12.8	15.0	10.4	14.3
Self-injury (past 12 months)	7.7	8.5	6.7	7.8	9.0	7.4	9.7
Considered suicide (lifetime)	9.9	10.9	9.4	10.5	11.2	10.7	14.2
Attempted suicide (lifetime)	3.0	3.0	2.6	3.0	3.2	2.7	3.9
<b>PHYSICAL ACTIVITY AND BODY WEIGHT</b>							
Exercised for ≥20 minutes on 3 or more days/week	78.7	79.0	76.9	80.3	80.8	80.7	79.5
Overweight or obese <sup>‡</sup>	20.4	19.8	19.5	19.0	19.2	19.7	19.6

\* Includes electronic cigarettes (e-cigarettes) like JUUL, Phix, Vuse, MarkTen, and blu, and other electronic vapor products, like vapes, vape pens, e-cigars, e-hookahs, hookah pens, and mods

† From 2006 to 2014, binge drinking was defined as 5 or more drinks in a row on one or more occasion for all students. Since 2016, binge drinking has been defined as 4 or more drinks in a row for females and 5 or more drinks in a row for males.

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

## MetroWest Region Middle School Students (Grades 7-8) 2018 Key Indicator Patterns by Sex

*MetroWest Adolescent Health Survey*

	Sex (%)		Total (%)
	Female (6,066)	Male (5,988)	
<b>SUBSTANCE USE</b>			
Lifetime cigarette smoking	2.3	3.5	2.9
Current cigarette smoking (past 30 days)	0.5	1.0	0.8
Lifetime electronic vapor product use*	9.3	10.5	9.9
Current electronic vapor product use (past 30 days)*	5.9	5.6	5.8
Lifetime alcohol use	10.2	13.2	11.7
Current alcohol use (past 30 days)	3.7	4.1	3.9
Binge drinking (past 30 days) <sup>†</sup>	0.9	0.9	0.9
Lifetime marijuana use	2.7	3.2	3.0
Current marijuana use (past 30 days)	1.4	1.9	1.7
Lifetime inhalant use	3.3	3.7	3.5
<b>VIOLENCE</b>			
Physical fighting (lifetime)	17.1	47.3	32.2
Physical fighting on school property (lifetime)	4.4	17.8	11.1
Carried a weapon (lifetime)	6.6	21.0	13.7
Carried a weapon on school property (lifetime)	0.5	1.0	0.8
<b>BULLYING VICTIMIZATION</b>			
Bullying victim (past 12 months)	31.5	24.1	27.9
Bullying victim on school property (past 12 months)	27.4	21.5	24.5
Cyberbullying victim (past 12 months)	22.3	13.2	17.8
<b>MENTAL HEALTH</b>			
Life "very" stressful (past 30 days)	27.4	11.8	19.8
Depressive symptoms (past 12 months)	18.1	10.2	14.3
Self-injury (past 12 months)	12.8	6.4	9.7
Considered suicide (lifetime)	17.2	11.0	14.2
Attempted suicide (lifetime)	4.7	3.1	3.9
<b>PHYSICAL ACTIVITY AND BODY WEIGHT</b>			
Exercised for ≥20 minutes on 3 or more days/week	77.1	82.2	79.5
Overweight or obese <sup>‡</sup>	16.1	23.3	19.6

\* Includes electronic cigarettes (e-cigarettes) like JUUL, Phix, Vuse, MarkTen, and blu, and other electronic vapor products, like vapes, vape pens, e-cigars, e-hookahs, hookah pens, and mods

† From 2006 to 2014, binge drinking was defined as 5 or more drinks in a row on one or more occasion for all students. Since 2016, binge drinking has been defined as 4 or more drinks in a row for females and 5 or more drinks in a row for males.

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



## MetroWest Region Middle School Students (Grades 7-8) 2018 Key Indicator Patterns by Grade

*MetroWest Adolescent Health Survey*

	Year of Survey (%)		Total (%)
	7 <sup>th</sup> (6,081)	8 <sup>th</sup> (6,026)	
<b>SUBSTANCE USE</b>			
Lifetime cigarette smoking	1.9	3.9	2.9
Current cigarette smoking (past 30 days)	0.5	1.1	0.8
Lifetime electronic vapor product use*	5.8	14.1	9.9
Current electronic vapor product use (past 30 days)*	3.2	8.4	5.8
Lifetime alcohol use	8.8	14.6	11.7
Current alcohol use (past 30 days)	2.5	5.3	3.9
Binge drinking (past 30 days) <sup>†</sup>	0.4	1.4	0.9
Lifetime marijuana use	1.3	4.7	3.0
Current marijuana use (past 30 days)	0.8	2.5	1.7
Lifetime inhalant use	2.9	4.1	3.5
<b>VIOLENCE</b>			
Physical fighting (lifetime)	32.1	32.3	32.2
Physical fighting on school property (lifetime)	11.0	11.2	11.1
Carried a weapon (lifetime)	13.3	14.2	13.7
Carried a weapon on school property (lifetime)	0.4	1.1	0.8
<b>BULLYING VICTIMIZATION</b>			
Bullying victim (past 12 months)	28.1	27.7	27.9
Bullying victim on school property (past 12 months)	24.6	24.4	24.5
Cyberbullying victim (past 12 months)	16.9	18.7	17.8
<b>MENTAL HEALTH</b>			
Life "very" stressful (past 30 days)	16.2	23.3	19.8
Depressive symptoms (past 12 months)	13.2	15.4	14.3
Self-injury (past 12 months)	8.3	11.1	9.7
Considered suicide (lifetime)	12.0	16.4	14.2
Attempted suicide (lifetime)	3.3	4.5	3.9
<b>PHYSICAL ACTIVITY AND BODY WEIGHT</b>			
Exercised for ≥20 minutes on 3 or more days/week	80.3	78.8	79.5
Overweight or obese <sup>‡</sup>	18.4	20.7	19.6

\* Includes electronic cigarettes (e-cigarettes) like JUUL, Phix, Vuse, MarkTen, and blu, and other electronic vapor products, like vapes, vape pens, e-cigars, e-hookahs, hookah pens, and mods

† From 2006 to 2014, binge drinking was defined as 5 or more drinks in a row on one or more occasion for all students. Since 2016, binge drinking has been defined as 4 or more drinks in a row for females and 5 or more drinks in a row for males.

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

**Education Development Center (EDC)**

43 Foundry Avenue  
Waltham, MA 02453

[www.edc.org](http://www.edc.org)

**METROWEST  
HEALTH  
FOUNDATION**

