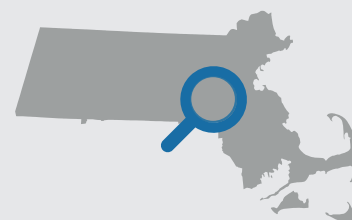


MetroWest Adolescent Health Survey Regional Highlights Report

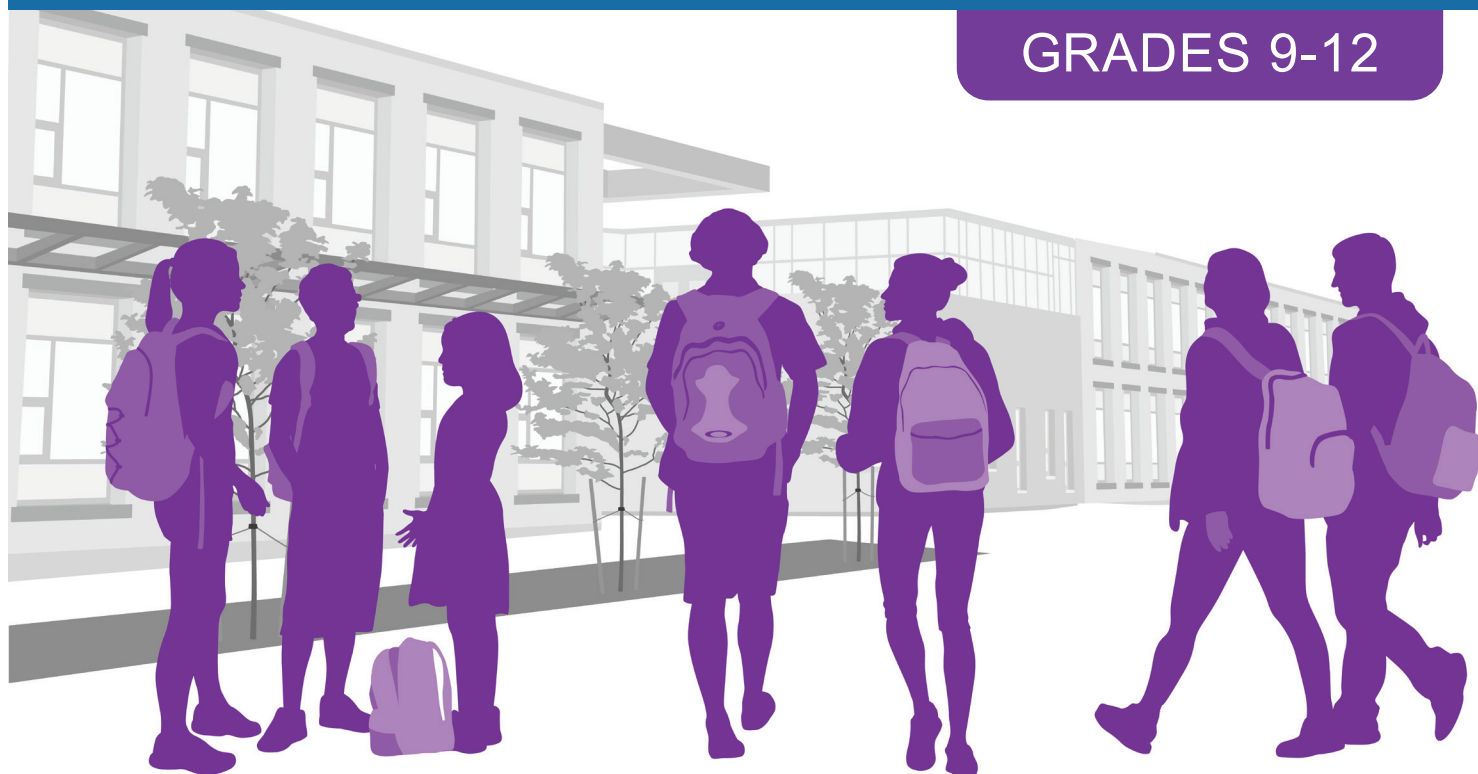
*Informing data-driven school and community
health policies and practices*



2021

MetroWest Region High School Youth

GRADES 9-12



**METROWEST
HEALTH
FOUNDATION**



Spring 2022

Funded by:
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Submitted by:
Education Development Center, Inc.

Regional Highlights from the 2021 MetroWest Adolescent Health Survey

MetroWest Region High School Report

Background

The MetroWest Adolescent Health Survey (MWHAS), an initiative of the MetroWest Health Foundation, has been monitoring trends in adolescent health and risk behaviors since 2006. The need for data to drive advancements in prevention efforts, programs, and policies has been made even more apparent during the COVID-19 pandemic. By providing timely, local data on pressing adolescent health issues, schools and communities are better equipped to understand and prioritize the challenges facing youth today. The MetroWest Health Foundation is deeply committed to supporting data-driven activities and strategies that can best support youth physical and mental wellbeing.

Methodology

The MWAHS content is based on the Centers for Disease Control and Prevention's *Youth Risk Behavior Survey* (YRBS)¹, which asks questions about the leading causes of morbidity and mortality among youth, including substance misuse, violence, behaviors related to unintentional injury, physical activity, sexual behavior, and mental health. The MWAHS expands on these topics and includes additional topics (e.g., protective factors, social media use, school climate, and mental health services) based on the priorities and concerns of stakeholders in the MetroWest region.

The 2021 survey is the 8th administration of the MWAHS, and the first online survey administration. Many other school-based surveillance studies have switched from paper-and-pencil to online surveys in recent years, including the 2021 *Massachusetts YRBS*.² Research has shown that findings from online and paper-and-pencil surveys of youth risk behaviors are generally equivalent.³

While the MWAHS was administered every other year from 2006 to 2018, there was a one-year delay in the administration of the most recent survey in the fall of 2021 due to the challenges of surveying youth during remote learning. Reports of some behaviors that reflect longer time periods (e.g., "past 12 months") and ask about risk behaviors that took place "on school property" may include a time when some students were not attending school in person for a portion of the time.

In 2021, 39,293 middle and high school students participated in the survey across all 25 communities in the MetroWest region that are served by the MetroWest Health Foundation. The 2021 High School MWAHS was administered to a census of students in 9th through 12th grades in 26 high schools in the region. 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, with extra precautions taken in classroom and online platform procedures to ensure that data being collected electronically would remain anonymous.

In total, 22,903 students in grades 9 through 12 completed the 2021 survey, representing 82.9% of youth. This report summarizes current youth behaviors on key health indicators in the areas of substance use, violence, bullying, mental health, sexual behavior, physical activity, and protective factors. The data allow for an examination of behavioral trends across eight time points from 2006 to 2021 as well as an analysis of patterns in risk behaviors by grade and sex for all key indicators. In addition, risk behaviors among youth based on disability status and sexual/gender identity are provided when considerable disparities exist. Bivariate analyses looking at associations across various indicators are also described, most often focusing on the relationship between risk behaviors and mental health given the local concerns about mental health problems that have existed in the region in recent years and have been elevated in light of COVID-19. Note that these associations cannot be interpreted as causal, meaning that it is not possible to tell from this cross-sectional data whether one behavior leads to the other. Lastly, comparisons of MetroWest data with state and national trends are provided when analogous data is available, considering disruptions and delays in surveillance studies due to COVID-19. Comparisons with data from the most recent state and national YRBS are not provided as they were in past reports due the large timing gap between the most recent YRBS data available (from spring 2019) and the fall 2021 MWAHS, as well as the emergence of COVID-19 during this time.

Given the one-year delay in survey administration due to COVID-19, this report provides important data to guide health-related programming and policy-making following an unprecedented time period that has undoubtedly had some influence on adolescents' perceptions and behaviors. The findings will inform, stimulate, and focus school and community efforts in the areas needing the most attention in order to improve adolescent health across the MetroWest region.

Key Findings: Substance Use

Cigarette Smoking and Use of Electronic Vapor Products*

Use of conventional cigarettes among MetroWest high school youth has declined at each time point since the MWAHS began in 2006, with 11% of youth reporting lifetime smoking in 2021, down from a high of 35%.

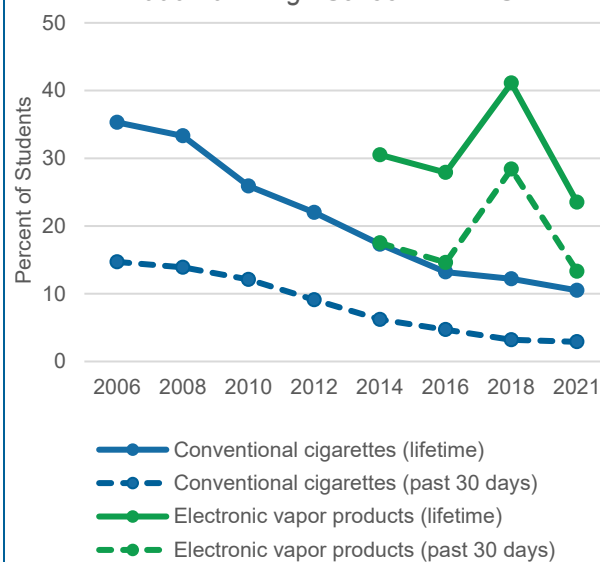
Despite the concerning increase in use of electronic vapor products (EVPs) found in the 2018 survey, reports are down sharply: In just three years, lifetime EVP use declined from 41% in 2018 to 24% in 2021. At the same time, perceived risk of using EVPs increased substantially. The sharp decline in EVP use is consistent with national trends.⁴

Cigarette Smoking (Conventional)

- » The decrease in lifetime smoking from 2018 to 2021 is small (just over one percentage point) but represents a continued decline that has been observed at every survey since 2006 [Figure 1].
- » The decrease in lifetime smoking from 2018 to 2021 is due to a decline among males (from 14% to 10%) whereas reports were steady among females at 11%.
- » Current use of conventional cigarettes (in the past 30 days) has remained similar from 2018 to 2021 at around 3%, down from 15% when the MWAHS began.
- » While lifetime and current smoking previously were higher among males, reports in 2021 are similar by sex.
- » The proportion of youth who initiate smoking increases from 9th grade (6%) to 12th grade (17%).
- » Cigarette smoking in the MetroWest region is slightly lower than national data collected in the Spring 2021 *Monitoring the Future* (MTF) study, which surveys youth in 8th, 10th, and 12th grades on an annual basis.

For example, lifetime cigarette smoking is reported by 10% of 10th graders in MTF, and 8% of 10th graders in MetroWest. Lifetime smoking among 12th grade students is 18% in MTF and 17% in the region. Similar to trends in the MetroWest region, MTF also shows a decline in cigarette smoking nationally.⁴

Figure 1. Trends in Smoking and Vaping
2006-2021 High School MWAHS



* 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. They also include disposable products that are only used once, such as Puff Bars, Stif, or Viigo.

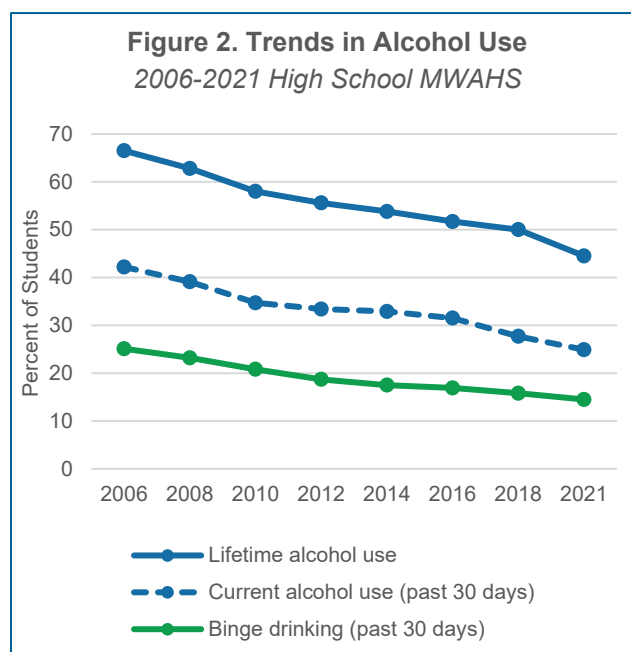
Use of Electronic Vapor Products

- » After a sharp increase from 28% in 2016 to 41% in 2018, reports of lifetime EVP use decreased even more steeply, to 24% in 2021, which is the lowest since the MWAHS began measuring vaping in 2014 [Figure 1]. While large declines were seen among both sexes, the decrease was greater among males (from 40% in 2018 to 21% in 2021) than females (from 42% to 26%).
- » About one in eight high school students (13%) have used EVPs in the past 30 days, down sharply from 28% since 2018. Like lifetime vaping, there are large declines among both females and males, with the declines slightly greater among males.
- » While vaping used to be similar by sex, due to the differing rates of decline, females now report more vaping than males. For example, in 2021, current vaping is reported by 15% of females and 12% of males.
- » Despite the overall decline in vaping, many youth initiate EVP use during high school, with reports more than tripling from 12% in 9th grade to 38% in 12th grade.
- » Six percent of high school youth have used EVPs on school property at least once in the past 30 days, down from 12% in 2018.
- » Ten percent of youth report using EVP's containing nicotine in the past 30 days, 10% report using flavored products, and 10% report using disposable (single-use) products.
- » Only 2% of youth report using EVPs daily in the past 30 days in 2021, down from 5% in 2018. However, daily use does increase by grade, with nearly one in twenty 12th grade students (5%) reporting daily use, likely indicating addiction to nicotine. Consistent with these reports, 4% of 12th grade students report feeling a strong craving or need to vape often or very often in the past 30 days, and 5% report wanting to vape soon after they wake up.
- » While use lowered substantially, more than half of high school youth (56%) say that it would be fairly easy or very easy to obtain EVPs if they wanted to.
- » Consistent with the decline in use, perceived risk of using EVPs increased considerably: the proportion of youth reporting that use of EVPs is of "moderate" or "great" risk increased from 42% in 2014 to 67% in 2018, increasing further to 83% in 2021. Perceived risk is greater among females than males (86% vs. 81%) and decreases slightly by grade, from 86% in 9th grade to 80% in 12th grade. Lower perceived risk is associated with EVP use.
- » Youth with physical and/or learning disabilities are more likely to report EVP use than youth without disabilities (e.g., 18% vs. 11% for current EVP use).
- » Use of EVPs is associated with reports of mental health problems. For example, youth who used EVPs in the past 30 days are more likely to report depressive symptoms (46% vs. 24%) and self-injury (36% vs. 16%) in the past 12 months compared with youth have haven't used EVPs recently.
- » Use of EVPs in MetroWest is lower than in the nation among 10th grade students (e.g., lifetime use among 10th graders is 28% in MTF compared to 19% in MetroWest). However, reports among 12th grade students are more similar (39% in MTF and 38% in MetroWest). Like in the MetroWest region, the MTF study also shows sharp declines in EVP use.⁴

Alcohol Use

Alcohol use among MetroWest high school youth continued to decline in 2021, following a consistent trend over each survey administration since 2006. For the first time in 2021, fewer than half of high school youth report lifetime drinking (45%), down from 50% in 2018. Current drinking and binge drinking in the past 30 days also continued their downward trends.

- » Reports of current drinking decreased from 28% in 2018 to 25% in 2021, down from a high of 42% in 2006 [Figure 2].
- » Binge drinking (during the past 30 days) has steadily declined by one-third, from 25% in 2006 to 16% in 2018, further declining to 15% in 2021.*
- » Consistent with the past three survey administrations, females report higher levels than males for lifetime drinking (48% vs. 41%) and current drinking (28% vs. 22%). For the first time, females report higher levels of binge drinking than males (16% vs. 13%).
- » While alcohol use has consistently declined over time among both females and males, the decline is greater among males, contributing to the disparities described above. For example, from 2018 to 2021, lifetime drinking decreased more among males (from 48% to 41%) than females (from 52% to 48%). During the same time, binge drinking declined from 16% to 13% among males, whereas it remained steady at 16% among females.
- » Current alcohol use nearly quadruples from 9th grade (11%) to 12th grade (42%). By 12th grade, nearly one in three high school students reports recent binge drinking (29%).
- » Alcohol use is associated with mental health problems: For example, youth who report current alcohol use are more likely to report that life was “very” stressful in the past 30 days (46% vs. 29%) and to report depressive symptoms in the past 12 months (36% vs. 24%).
- » About one in twenty high school youth (5%) reports drinking alone in the past 30 days, and 3% report that drinking has interfered with school, work, or other responsibilities; these indications of problem drinking are similar to 2018 levels. Drinking alone is more strongly associated with elevated risk of mental health problems, including more than double the risk of depressive symptoms, and nearly three times the risk of suicidal thoughts in the past 12 months.
- » Current alcohol use is higher in MetroWest than in the most recent MTF study. For example, among 10th graders, 21% of MetroWest students have had alcohol in the past 30 days compared with 13% of MTF 10th graders. A similar pattern exists in 12th grade. Alcohol use has declined recently in both MetroWest and in the MTF study.⁴



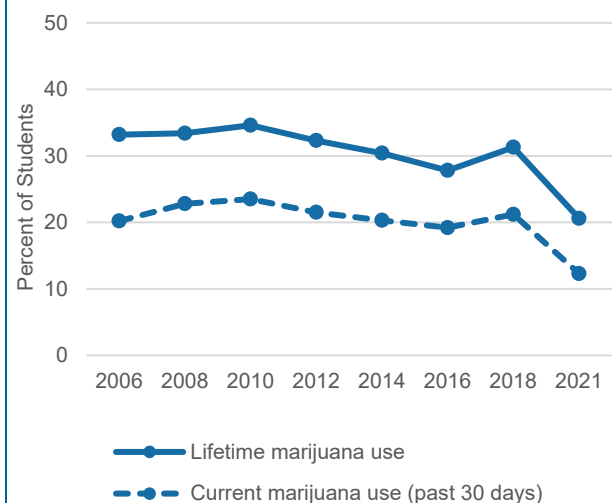
* Binge drinking in recent surveys is defined as four or more drinks in a row for females, or five or more drinks in a row for males at least once in the past 30 days. This does not take into account other factors, like body weight, that influence intoxication.

Marijuana Use

Although 2018 data showed small increases in marijuana use in high school, 2021 data indicates a sharp decline to levels well below any previously reported in the MWAHS. For example, after rising from 28% in 2016 to 31% in 2018, lifetime marijuana use dropped to 21% in 2021. The decrease in marijuana use occurred despite the opening of retail marijuana dispensaries in 2018 and earlier state policies that decriminalized, and later legalized, adult recreational marijuana use. The marked decline in MetroWest is consistent with national data.⁴

- » Current marijuana use also declined rapidly in the past three years, from 21% in 2018 to 12% in 2021 [Figure 3].
- » Lifetime marijuana use in 2021 is slightly higher among females than males (22% vs. 20%); this is the first time point in which lifetime use among females surpassed males.
- » Current use is similar by sex at 12-13% in 2021; in all prior surveys, males reported higher current use.
- » While marijuana use has declined markedly among both sexes, the recent decline in lifetime use is greater among males (from 33% in 2018 to 20% in 2021) than females (from 30% to 22%). A similar trend by sex exists for current use, which declined from 23% to 13% among males and from 19% to 12% among females.
- » Initiation of marijuana use increases from 7% in 9th grade to 39% in 12th grade. By 12th grade, one in four students report current use (24%).
- » Three percent of youth have used marijuana on school property in the past 30 days, and 7% have been offered, sold, or given marijuana on school property in the past 30 days.
- » The most common types of lifetime marijuana use are smoking it (16%) and vaping it (16%), followed by using edibles (14%) and using a marijuana concentrate (7%), with recent use following a similar pattern.
- » A small number of youth report marijuana use which is indicative of addictive behavior: 4% have used marijuana while alone in the past 6 months, 2% have used marijuana before noon, and 2% report memory problems related to their use. These numbers are similar by sex, but increase notably by grade, with 7% of 12th grade students having used marijuana while alone and 4% using marijuana before noon.
- » Fewer than half of youth (48%) say it would be “fairly easy” or “very easy” to obtain marijuana if they wanted to, down from 64% in 2018. This may be related to fewer opportunities for social access during COVID-19 (such as through peers and at parties and other social gatherings), despite the opening of retail outlets.
- » Counter to expectations, perceived risk of marijuana use declined along with declines in actual use. Half of youth (51%) believe the risk of using marijuana once or twice a week is “moderate” or “great” risk, down slightly from 2018 levels (56%). However, reports of moderate or great risk of peers using marijuana every day or almost every day are higher (78%). Lower risk perception is related to increased use.
- » Youth with disabilities are more likely to report current marijuana use than youth without disabilities (16% vs. 11%).

Figure 3. Trends in Marijuana Use
2006-2021 High School MWAHS



- » LGBTQ youth are also slightly more likely to use marijuana (current use is 15% vs. 12% for heterosexual cisgender youth).
- » Marijuana use is associated with reports of mental health problems. For example, recent marijuana users are more likely than nonusers to report depressive symptoms (42% vs. 25%), self-injury (33% vs. 17%), and seriously considering suicide (29% vs. 14%) in the past 12 months.
- » MetroWest 10th graders report lower marijuana use than MTF 10th graders (e.g., 15% vs. 22% for current marijuana use), but reports are similar among 12th graders (39% and 38%, respectively). Like in MetroWest, the MTF study also shows a steep decline in marijuana use.⁴

Prescription Drug Misuse

Lifetime prescription drug misuse has declined slowly and steadily since the beginning of the MWAHS, from 11% in 2006 to 5% in 2018, lowering slightly more to 4% in 2021. Reports of current use have not changed substantially in recent years.*

- » Over the course of the MWAHS, prescription drug misuse has decreased more among males (from 12% in 2006 to 3% in 2021) than females (from 10% to 5%), resulting in slightly higher reports among females in 2021.
- » Current misuse of prescription drugs has remained steady at around 3% since 2016, with similar reports by sex in 2021.
- » As with other substance use, lifetime prescription drug misuse increases during the high school years, from 3% in 9th grade to 5% in 12th grade.
- » Five percent of youth have misused prescription pain medicine in their lifetime, and under 3% of youth have misused it in the past 30 days; consistent with wording on the national YRBS,¹ prescription pain medicine includes misuse of opioids including codeine, Vicodin, OxyContin, Hydrocodone, and Percocet. Current misuse of prescription pain medicine has been steady since it was first measured in 2018.
- » Reports of lifetime prescription drug misuse are higher among LGBTQ youth compared with heterosexual cisgender youth (8% vs. 3%) and among youth with disabilities compared to youth without disabilities (7% vs. 3%).
- » The decline in prescription drug misuse is consistent with findings from the MTF study, and reports of misuse are lower in MetroWest than in the nation. For example, lifetime misuse of any prescription drug is reported by 9% of MTF 12th graders and 5% of MetroWest 12th graders.⁴

* Prescription drug misuse includes using prescription drugs without a doctor's prescription or differently than how a doctor told you to use it. This includes using someone else's prescription or obtaining the medicine illegally. The phrase "differently than how a doctor told you to use it" was added in 2021 to use wording consistent with the CDC Youth Risk Behavior Survey.

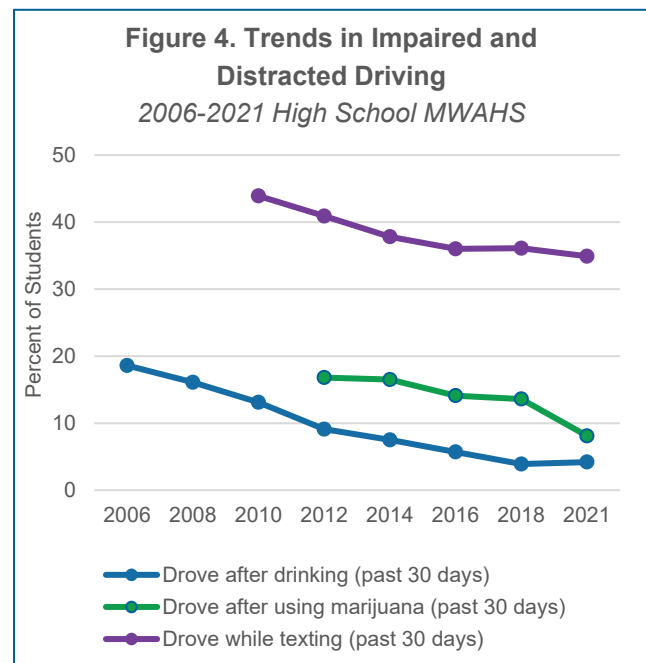
Key Findings: Impaired and Distracted Driving

Driving after drinking in the past 30 days has remained at 4% since 2018 after declining steadily from a high of 19% when the MWAHS began in 2006. However, driving after using marijuana use dropped markedly from 14% in 2018 to 8% in 2021, consistent with the steep decline in reports of marijuana use during this time.

Texting while driving in the past 30 days has remained similar since 2016 at 35-36%, down from 44% when this data was first collected in 2010.

Impaired Driving

- » Reports of driving after drinking declined from 19% in 2006 to 6% in 2016, and then remained steady at 4% over the last two surveys [Figure 4].
- » Four percent of students report riding as a passenger in a car with a high school driver who had been drinking in the past 30 days, just below 2018 levels (5%), but substantially lower than when this data was first reported in 2012 (10%).
- » The steep drop in driving after marijuana use from 2018 to 2021 (from 14% to 8%) follows a more gradual decline in the earlier years of the MWAHS, from a high of 18% in 2012 when this data was first collected [Figure 4].
- » Reports of riding as a passenger with a high school driver who used marijuana have also dropped sharply, from 14% in 2018 to 8% in 2021, mirroring the trends in reports of driving after using marijuana.
- » Males are more likely than females to report current driving after drinking (5% vs. 3%) and driving after using marijuana (11% vs. 6%). Reports of recently riding as a passenger with a driver who has been using substances are higher among females than males with respect to alcohol (13% vs. 11%), but similar at 7-8% regarding marijuana.
- » Twelfth grade drivers are more than twice as likely as 11th grade drivers to report driving after using marijuana (12% vs. 5%). Reports of driving after drinking are slightly higher in 12th grade (5%) than 11th grade (3%).
- » Two-thirds of youth (65%) believe that riding in a car driven by a high school student who had been using marijuana is “very dangerous.” Reports are higher among females than males (70% vs. 60%) and decrease from 9th grade (70%) to 12th grade (55%).



Distracted Driving

- » More than one-third of drivers (35%) report texting, messaging, or emailing while driving in the past 30 days, which is similar to 2018 levels (36%), but down substantially from 44% in 2010 when this data was first collected [Figure 4].

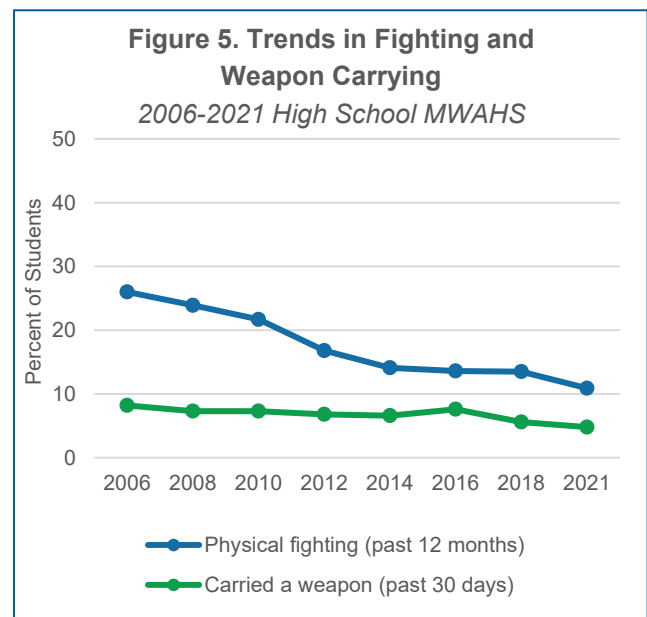
- » Reports of being a passenger in a vehicle with a high school driver who was texting in the past 30 days decreased from 30% in 2018 to 23% in 2021.
- » Females are slightly more likely to report texting while driving than males (36% vs. 33%).
- » Reports of texting while driving double from 11th grade (23%) to 12th grade (46%).

Key Findings: Violence

After remaining steady in recent surveys, reports of physical fighting are slightly lower in 2021 with one in ten students reporting being in fight in the past 12 months (11%). Weapon carrying in the past 30 days is reported by 5% of youth, similar to 2018 reports.

Physical Fighting

- » Reports of fighting decreased from a high of 26% in 2006 to 14% in 2014, remaining steady over several surveys before decreasing to 11% in 2021 [Figure 5].
- » Three percent of youth report fighting on school property in the past 12 months, similar to 2014-2018 levels (4%).
- » Nearly three times as many males (16%) as females (6%) report fighting. While there have been substantial declines in fighting among both sexes since 2006, reports from 2018 to 2021 show a decline among males (from 20% to 16%) whereas females remained similar at 6-7%.
- » While many risk behaviors increase by grade, fighting is highest in 9th grade at 13%, and then decreases to 9% by 12th grade. Reports of fighting on school property are similar by grade at 3-4%.



Weapon Carrying

- » One in twenty youth (5%) carried a weapon in the past 30 days; 2006-2018 levels ranged from 6-8% [Figure 5].
- » Weapon carrying on school property declined from 3% in 2006 to 1% in 2018 and remained at that level in 2021.
- » Five percent of youth report being threatened or injured with a weapon in the past 12 months, with reports remaining steady over the past three surveys. Three percent of youth report being threatened or injured with a weapon at school in the past 12 months, which also has not changed in recent surveys.
- » Consistent with patterns for physical fighting, current weapon carrying is much higher among males (7%) than females (3%). Weapon carrying among males decreased from 13% in 2006 to 7% in 2021, whereas weapon carrying among females has been steady at 2-3% since the MWAHS began.
- » Reports of weapon carrying increase slightly by grade, from 4% in 9th grade to 6% in 12th grade.

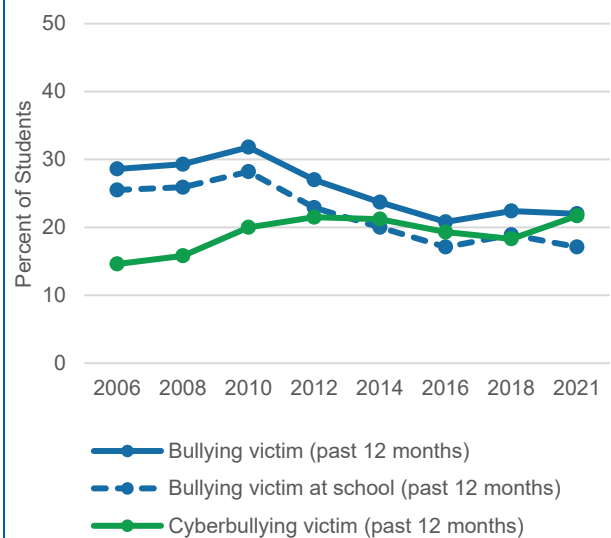
Key Findings: Bullying and Cyberbullying

School bullying victimization in the past 12 months is reported by 17% of youth, down from a high of 28% in 2010, with little change over the past two surveys. However, there is a concerning increase in cyberbullying: after declining from a high of 22% in 2012 to 18% in 2018, cyberbullying victimization increased to 22% in 2021, surpassing reports of school bullying.

Bullying

- » Overall reports of bullying victimization in the past 12 months decreased from a high of 32% in 2010 to 21% in 2016, remaining similar over the last two surveys at 22% [Figure 6]. Reports among females and males follow similar trends.
- » Consistent with prior years, females are more likely than males to be bullied (26% vs. 18%) and to be bullied on school property (19% vs. 15%).
- » Reports of bullying victimization at school show similar trends among females and males, with both sexes reporting little change compared to 2016 data.
- » While females are more likely to report victimization at school, males are more likely to report bullying someone else at school (7% vs. 4%).
- » Bullying victimization decreases by grade: For example, victimization at school decreases from 19% in 9th grade to 15% in 12th grade.
- » Ten percent of all students reported being bullied or verbally harassed in the past 12 months due to their race or ethnicity, 7% due to their religion or culture, 7% due to their gender, 8% due to their sexual identity/orientation, 5% due to a disability, and 22% due to their appearance.
- » LGBTQ youth are particularly vulnerable to both harassment and bullying: 34% of LGBTQ youth have been bullied in the past year, compared to 19% of heterosexual cisgender youth. Twenty-seven percent of LGBTQ youth report being bullied or verbally harassed specifically due to their sexual orientation.
- » Youth with physical and/or learning disabilities are also at heightened risk of victimization: 34% have been bullied in the past year, compared with 19% of youth without disabilities. Sixteen percent of youth with physical and/or learning disabilities have been bullied or verbally harassed specifically due to their disabilities.
- » Many bullying victims do not seek help from adults: Among students who were bullied at school in the past 12 months, only 26% talked to a school adult and 45% talked to a parent/adult outside of school about being bullied. These reports are consistent with prior years.
- » Bullying victimization is strongly associated with mental health. For example, youth who were bullied at school are more than twice as likely to report depressive symptoms (49% vs. 22%) and self-injury (38% vs. 15%) than those who weren't bullied.

Figure 6. Trends in Bullying and Cyberbullying
2006-2021 High School MWAHS



Cyberbullying

- » More than one in five youth (22%) were victims of cyberbullying in the past 12 months, an increase from 18% in 2018. The 2021 reports represent a return to earlier levels reported in 2012-2014 [Figure 6].
- » Females continue to report more cyberbullying victimization than males. From 2018 to 2021, there were similar increases among both sexes, from 22% to 26% among females, and from 14% to 18% among males.
- » Whereas reports of cyberbullying victimization are substantially higher among females than males (26% vs. 18%), reports of cyberbullying someone else are similar by sex (8% among females and 9% among males).
- » Reports of cyberbullying victimization are only marginally higher among youth in 9th and 10th grades (22-23%) compared with 11th and 12th grades (20-21%).
- » Youth with disabilities are more likely to be cyberbullied than those without disabilities (32% vs. 19%).
- » A similar pattern exists with respect to gender and sexual identity: LGBTQ youth are also more likely to be victimized online than heterosexual cisgender youth (30% vs. 19%).
- » Few cyberbullying victims seek help from adults: Among students who were cyberbullied in the past 12 months, only 13% talked to an adult at school and 26% talked to a parent or other adult outside of school about being cyberbullied. These numbers are lower than those reported by school bullying victims.
- » The increase in cyberbullying in the MetroWest region is consistent with reports from the *Cyberbullying Research Center*, which show an increase in cyberbullying from 2019⁵ to 2021⁶ among a national sample of 12-17 year-old youth.

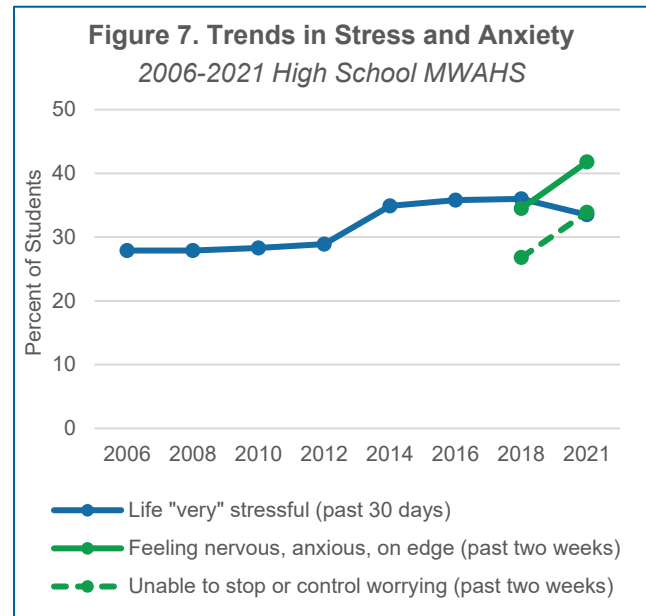
Key Findings: Mental Health

Reports of stress are slightly lower in 2021 after increasing steadily since 2006. However, since 2018, there are considerable and concerning increases in reports of more serious mental health problems, including anxiety, depressive symptoms, self-injury, and suicidal ideation. These increases are disproportionately driven by higher reports among females. Further, the overall prevalence of these mental health problems is higher in 2021 than in any prior surveys. The increase in mental health problems in MetroWest is consistent with national reports of a youth mental health crisis that is believed to have worsened during the COVID-19 pandemic.⁷

Stress and Anxiety

- » After rising steadily from 28% in 2006 to a high of 36% in 2018, reports of life being “very” stressful in the past 30 days are slightly lower in 2021 at 34% [Figure 7].
- » More than twice as many females (45%) as males (21%) report that their lives have been “very stressful” in the past 30 days.
- » From 2018 to 2021, reports of stress decreased among both females (from 48% to 45%) and males (from 23% to 21%).
- » As reported in prior surveys, stress increases during the high school years, more than doubling from 22% in 9th grade to 46% in 12th grade.
- » School continues to be the most common source of stress, reported by 67% of youth, similar to recent surveys. This is followed by stress related to physical and/or emotional health (41%), which increased from 29% in 2018. Stress due to social issues (39%) and stress due to appearance issues (39%) are also several percentage

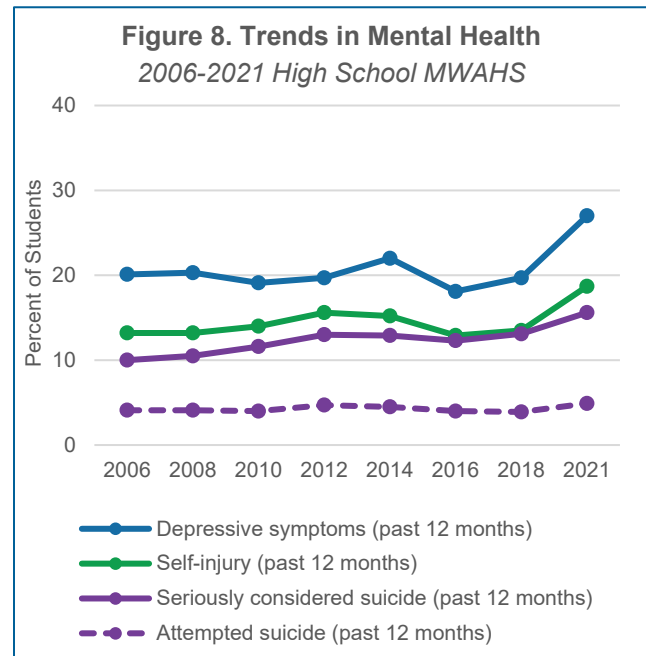
- points higher than in 2018 (33% and 30%, respectively). Stress due to family issues (26%) and safety issues (5%) have been steady in recent surveys.
- » Reports of symptoms of anxiety are increasing: two out of five students (42%) report feeling nervous, anxious, or on edge on “more than half the days” or “nearly every day” in the past two weeks, up from 35% in 2018, and 34% report feeling unable to stop or control worrying, up from 27%. 2018 was the first year that these data were collected.
 - » Reports of anxiety symptoms are more than twice as high among females as males. For example, feeling nervous, anxious, or on edge for at least half the days in the past two weeks is reported by 58% of females and 24% of males.
 - » Anxiety symptoms increase by grade during high school: 28% of 9th grade students report being unable to stop or control worrying, increasing to 38% by 12th grade.
 - » There are increases in reports of symptoms related to stress, anxiety, and worrying that impact their daily functioning at and outside of school, as well as their physical and mental well-being. Forty-three percent of youth report feeling tired or having little energy (up from 18% in 2018), 32% report sleeping problems (up from 28%), 34% report having trouble concentrating in school (up from 26%), and 31% report having a poor appetite or eating too much (up from 25%) “often” or “very often” in the past two weeks.
 - » LGBTQ youth are more likely than heterosexual cisgender youth to report stress and anxiety. For example, more LGBTQ youth reported that life was “very” stressful (48% vs. 29%) and that they were unable to stop or control worrying in the past two weeks (55% vs. 27%) compared to heterosexual cisgender youth.
 - » Youth with disabilities are also more likely to report current stress (45% vs. 31%) and being unable to control worrying (48% vs. 31%) than youth without disabilities.



Depressive Symptoms, Self-Injury, and Suicidality

- » Reports of serious mental health problems increased sharply since the last survey: Depressive symptoms rose from 20% in 2018 to 27% in 2021, intentional self-injury rose from 14% to 19%, and seriously considering suicide increased from 13% to 16%. Suicide attempts were also slightly higher in 2021 (5%) than in 2018 (4%), though they have been in the 4-5% range since the MWAHS began [Figure 8].
- » While there are increases in depressive symptoms and self-injury among both sexes, these increases are greater among females. For example, depressive symptoms increased from 25% in 2018 to 36% in 2021 among females, and from 14% to 17% among males. Reports of self-injury follow a similar pattern.
- » Suicidal ideation and attempts have increased notably among females but do not show parallel increases for males. For example, seriously considering suicide increased from 16% in 2018 to 20% in 2021 among females, but was only slightly higher among males (10% in 2018; 11% in 2021).
- » Given these trends, females are more than twice as likely as males to report mental health problems, with disparities increasing in recent surveys, particularly for suicidal thoughts and behaviors.

- » Reports of depressive symptoms increase by grade, from 23% in 9th grade to 30% in 12th grade. Seriously considering suicide also increases slightly (from 14% to 17%). However, reports of suicide attempts are steady at 5% across all grades.
- » One in three high school youth (34%) report that they experienced poor mental health “most of the time” or “always” during the COVID-19 pandemic (48% of females and 18% of males). Nearly half of all youth (48%) said their mental health became “a little worse” or “a lot worse” since the beginning of the pandemic (58% of females and 38% of males).
- » LGBTQ youth report elevated levels of mental health problems. Compared with heterosexual cisgender youth, they are more than twice as likely to report depressive symptoms (47% vs. 21%) and more than three times as likely to report self-injury (42% vs. 12%), seriously considering suicide (34% vs. 10%), and attempting suicide (11% vs. 3%).
- » Youth with physical and/or learning disabilities are at higher risk of mental health problems. They are more likely than youth without disabilities to report depressive symptoms (41% vs. 24%), and around twice as likely to report self-injury (31% vs. 16%), considering suicide (28% vs. 13%), and attempting suicide (10% vs. 4%).
- » Many students who report mental health problems are not receiving mental health services. Among students reporting depressive symptoms in the past 12 months, 34% talked to a school counselor, therapist, or psychologist at school and 8% talked to a school nurse. Forty-three percent of students with depressive symptoms talked to a therapist, psychologist, or other mental health professional outside of school.
- » The most common barriers to not seeking help for emotional challenges or problems at school include: not having time/not wanting to miss class (49%), believing that counseling at school wouldn't help (43%), and feeling like they should handle problems on their own (43%). Thirty-eight percent of youth believe a counselor would not understand them or their challenges, and 38% wouldn't want other students to know they were seeking help at school.
- » The concerning increases in mental health problems among MetroWest youth are consistent with reports of elevated depressive symptoms among youth in Massachusetts during COVID-19.⁸ The increase in self-injury and suicidality, particularly among girls, is consistent with reports from the Centers for Disease Control and Prevention, which indicate a 51% increase in suspected suicide attempt visits to hospital emergency departments from 2019 to 2021 among girls ages 12-17, and a 4% increase among boys.⁹

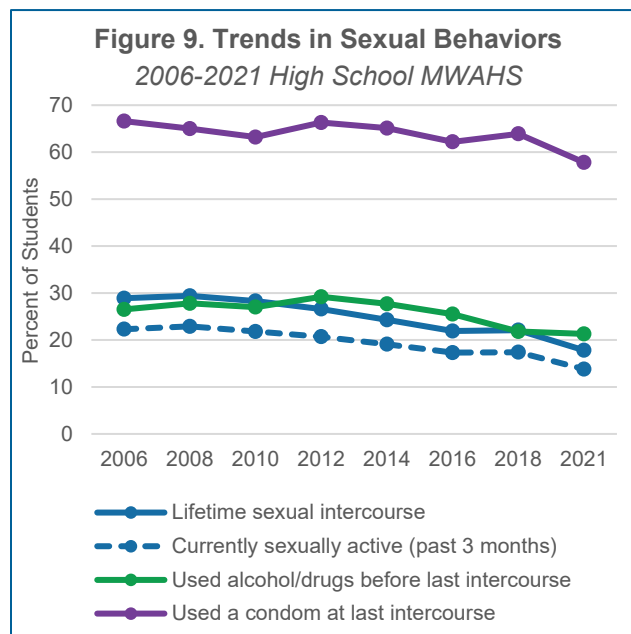


Key Findings: Sexual Behaviors

After declining over the last decade from 29% in 2006 to 22% in 2016-2018, reports of lifetime sexual intercourse among high school youth decreased further to 18% in 2021. More than two in five sexually active youth (42%) did not use a condom the last time they had intercourse.

Sexual Intercourse and Related Behaviors

- » By 12th grade, 36% of high school youth have had sexual intercourse, down from 42% of 12th grade students in 2018.
- » The proportion of youth who are currently sexually active (had intercourse in the past 3 months) decreased from 17% in 2016-2018 to 14% in 2021 [Figure 9]. About three out of ten 12th grade youth (28%) are currently sexually active.
- » Reports of condom use at last intercourse were also lower in 2021 (58%) compared with prior surveys, where reports ranged from 62-67%.
- » One in five sexually active youth (21%) used alcohol or drugs before the last time they had intercourse, which is similar to 2018 reports (22%), but lower than earlier surveys (26-29%).



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

Half of MetroWest high school youth (51%) report exercising moderately on at least five days in the past week, similar to 2016-2018 reports. About one in four youth (27%) get eight or more hours of sleep on the average school night, up slightly from 2018 (24%).

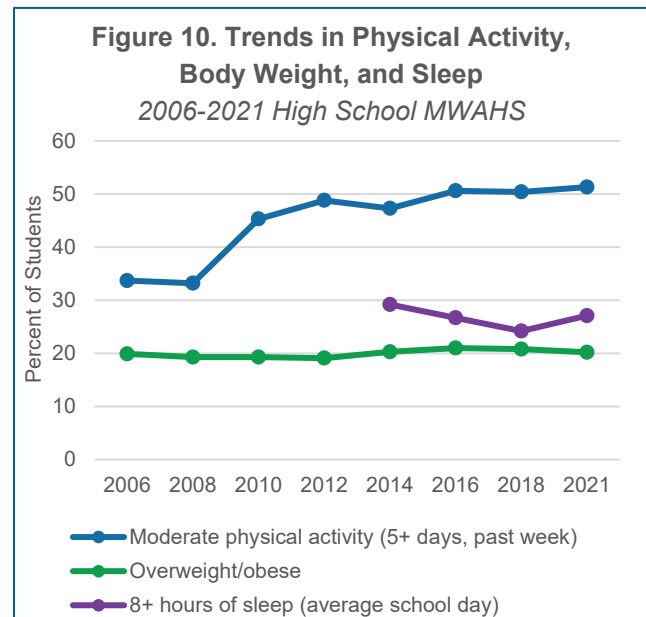
Physical Activity

- » While reports of moderate physical activity* have not changed in recent surveys, reports have increased substantially since the MWAHS began in 2006 (34%) [Figure 10].
- » Vigorous physical activity is reported by 66% of youth in 2021, with prior reports ranging from 65-68%.†

* Moderate physical activity increases your heart rate and makes you breathe hard for at least one hour on 5 or more of the past 7 days.

† Vigorous physical activity is exercising for at least 20 minutes that makes you sweat and breathe hard on 3+ of the past 7 days.

- » Forty seven percent of high school youth report exercising to strengthen or tone their muscles on three or more of the past 30 days.
- » Consistent with prior surveys, more males than females engage in moderate (60% vs. 44%) and vigorous (73% vs. 61%) physical activity.
- » Students report less physical activity as they get older. For example, reports of vigorous physical activity decrease from 56% in 9th grade to 46% in 12th grade.
- » The proportion of youth participating on a sports team in the past year decreased from 66% in 2018 to 61% in 2021.
- » Despite the overall increase in reports of physical activity, 13% of all high school youth (16% of females and 10% of males) report no moderate physical activity in the past 7 days, similar to 2018 levels. Reports of no physical activity increased from 11% in 9th grade to 16% in 12th grade.



Overweight/Obesity

- » Overweight/obesity has not changed substantially since 2006. In 2021, one in five youth (20%) were overweight or obese, with prior surveys in the range of 19-21% [Figure 10].*
- » Consistent with prior surveys, more males (23%) than females (18%) are overweight/obese.
- » The prevalence of overweight/obesity is similar throughout the high school years.

Sleep

- » Twenty-seven percent of youth sleep for 8 or more hours on the average school night, up from 24% in 2018. [Figure 10]. Sleep has increased among both females and males.
- » Males are more likely than females to get eight or more hours of sleep (31% vs. 24%).
- » The proportion of youth who sleep eight or more hours on an average school night decreases by more than half from 9th grade (38%) to 12th grade (18%).
- » As noted earlier, about one in three youth (31%), representing 43% of females and 19% of males, report sleep issues related to being stressed, anxious, or worried “often” or “very often” in the past two weeks.
- » The most common causes of reduced sleep include: schoolwork and studying (42%), time spent on social media (23%), worrying about school, family, friends, or other concerns (22%), and time spent on extracurricular activities (21%).
- » Youth who sleep less than eight hours per night are more likely to report poor mental health, including stress (39% vs. 20%), depressive symptoms (31% vs. 16%), and seriously considering suicide (18% vs. 9%).

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

Key Findings: Online Behavior

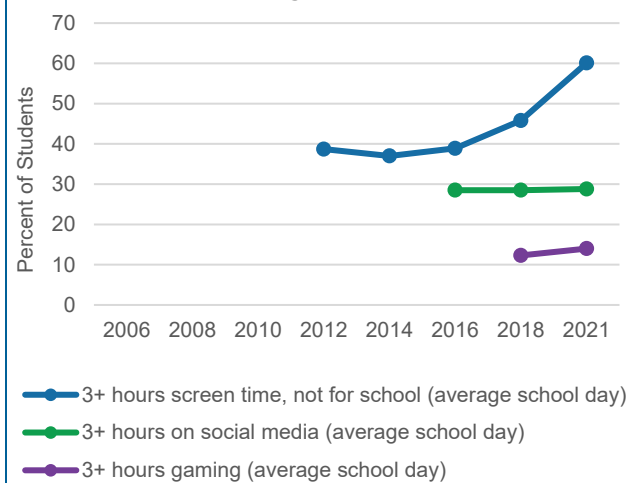
On the average school day, 57% of youth spend three or more hours on “screen time” (including time spent watching television and/or using a computer, tablet, or smartphone) not for school/homework) – a dramatic increase from 39% in 2018. Forty-three percent spend three or more hours online each school day, and 29% of youth spend 3 or more hours a day on social media alone, similar to prior years.

Screen Time and Online Time

- » Increases in screen time are substantial for both sexes; furthermore, high use (three or more hours daily) rose more among females (from 44% in 2018 to 61% in 2021) than among males (from 48% to 59%).
- » High use of social media in high school has remained steady from 2016 to 2021 at 29%, and the proportion of students gaming for 3 or more hours a day has increased only slightly since 2018, from 12% to 14% [Figure 11].
- » While females are far more likely to spend three or more hours daily on social media than males (35% vs. 22%), males are more likely to report gaming for 3 or more hours daily (23% vs. 6%).
- » Youth report both positive and negative attitudes towards social media. On the positive side, social media helps youth feel more connected to peers (64%, up from 60% in 2018), find people who share the same hobbies and interests (64%, up from 54%), take action about issues that are important (33%, up from 25%), and get support during challenging times (28%, down from 31%). On the negative side, a sizeable minority of students feel like social media keeps them from other important things, like homework or family responsibilities (32%, similar to 2018 levels), makes them feel badly about themselves or excluded (31%, up from 25%), and has hurt relationships with peers (13%, similar to 2018 levels).
- » Nearly half of youth (48%) feel they spend too much time on social media (54% of females and 41% of males).
- » Youth who spend three or more hours on social media daily are more likely to report cyberbullying victimization (30% vs. 18%) and perpetration (13% vs. 6%).
- » 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 current EVP use (19% vs. 10%), current alcohol use (30% vs. 22%) and current marijuana use (16% vs. 10%). They are also more likely to report depressive symptoms (38% vs. 22%) and seriously considering suicide (22% vs. 13%).
- » The rise in total screen time per day in the MetroWest region is consistent with a 17% rise in screen time from 2019 to 2021 found by Common Sense Media among 13-18 year-old youth.¹⁰

Figure 11. Trends in Screen Time and Online Behavior

2006-2021 High School MWAHS



Sexting

- » Sexting has been measured in MetroWest since 2010.* Ten percent of youth (15% of females and 5% of males) report feeling pressured by a boyfriend, girlfriend, or date to send a “sex” of themselves; prior reports ranged from 8-12%.
- » Reports of sending a sext of oneself increased from 11% in 2012 to 18% in 2016-2018, but were lower in 2021 at 14%. Seventeen percent of females and 12% of males report sending a sext message.
- » Reports of sexting increase during the high school years, with one in five 12th grade youth (22%) reporting they sent a sext of themselves.

Key Findings: Protective Factors

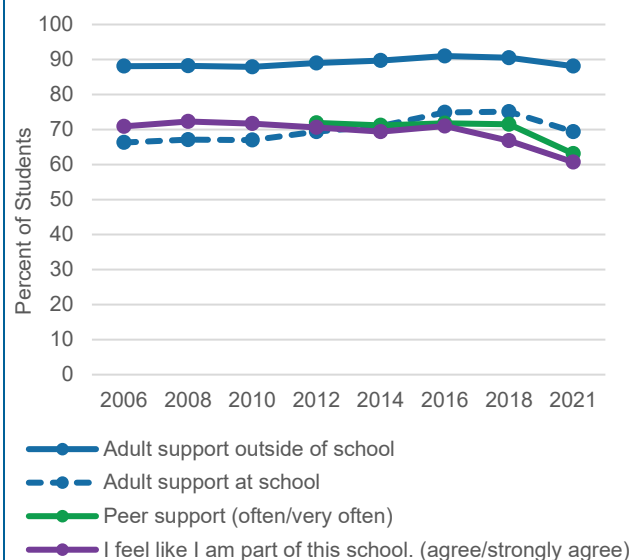
After having risen steadily from 66% in 2006 to 75% in 2018, reports of having a supportive adult at school to talk to about a problem decreased substantially to 69% in 2021. Several indicators of school connectedness also declined considerably in the last three years. These findings are likely related to impacts on school functioning and time spent in remote learning during COVID-19.

Outside of school, nine out of ten youth (88%) have a supportive parent or other adult to talk with about things that are important, which is slightly lower than 2018 levels (91%). Reports of peer support also declined since the last survey.

Adult Support

- » There were notable declines in adult support at school from 2018 to 2021 among females (from 77% to 70%) and males (from 73% to 69%).
- » Reports of having a supportive adult at school are higher among older students, rising from 65% in 9th grade to 78% in 12th grade.
- » Eighty-eight percent of youth have at least one adult outside of school to talk to about things that are important to them; while reports declined slightly from 2018 to 2021, they are similar to levels reported in the early years of the MWAHS [Figure 12].
- » Reports of adult support outside of school are similar for males and females and do not differ by grade.
- » LGBTQ youth are less likely to have a supportive adult outside of school (80%) compared with heterosexual cisgender youth (91%). Adult support at school is only slightly lower for LGBTQ youth (67% vs. 70%).

Figure 12. Trends in Protective Factors
2006-2021 High School MWAHS



* Sexting is defined as sending or forwarding nude, sexually suggestive, or explicit photos or videos of someone you know using the Internet, cell phones or other electronic communications in the past 12 months.

- » While most MetroWest youth have adult support in their lives, 8% of high school youth do not have any adult support at home nor at school. Youth without any adult support are more likely to report a variety of risk behaviors. For example, youth without adult support at home are more likely to report substance use, such as current EVP use (18% vs. 13%), and lifetime prescription drug misuse (9% vs. 4%). They are also far more likely to report mental health problems including depressive symptoms (51% vs. 25%) and having seriously considered suicide (33% vs. 14%).

School Connectedness and Engagement

- » About three out of five youth feel engaged in and connected with their school, as indicated by their agreement with statements such as: “I feel like I am part of this school” (61%) and “I am happy to be at this school” (58%).
- » Several indicators of school connectedness are markedly lower in 2021 compared to 2018. For example, reports of feeling close to people at school decreased from 72% to 60%, and reports of feeling like a part of their school decreased from 67% to 61% [Figure 12]. Among these indicators, reports were lower among both sexes, but the differences were greater for females.
- » Other measures of connectedness have remained similar since 2018, such as reports of teachers treating students fairly (58-59%) and feeling safe at school (steady at 74%).
- » Males consistently report higher levels of school connectedness than females. For example, more males are happy to be at their school than females (65% vs. 52%).
- » Most measures of school connectedness decrease slightly by grade, with the exception of feeling safe at school, which does not show a consistent grade pattern.
- » School connectedness is lower among youth with disabilities than youth without disabilities. For example, youth with disabilities are less likely to feel like a part of their school (53% vs. 63%), feel happy at their school (51% vs. 60%), or feel safe at their school (52% vs. 60%).
- » LGBTQ youth also report lower school connectedness. For example, they are less likely than heterosexual cisgender youth to feel close to people at school (49% vs. 64%), feel like a part of their school (45% vs. 66%), or to feel safe at their school (63% vs. 78%).
- » Youth with higher levels of school connectedness are less likely to report a range of harmful behaviors, such as substance use, bullying, and mental health problems. For example, youth who don't feel like a part of their school are more likely to report current EVP use (15% vs. 11%), current marijuana use (14% vs. 11%), bullying victimization at school in the past 12 months (23% vs. 13%), depressive symptoms in the past 12 months (40% vs. 18%), and seriously considering suicide in the past 12 months (24% vs. 10%), compared to youth who do feel like a part of their school.

Peer Support

- » After remaining steady over several surveys, peer support among high school youth declined in the last three years. Reports of having a friend to talk to about a personal problem “often” or “very often” decreased from 72% in 2018 to 63% in 2021 [Figure 12]. The decrease in peer support over the last three years was greater among females (from 77% to 66%) than among males (66% to 60%).
- » Reports of feeling lonely increased from 12% in 2010, when this data was first collected, to 23% in 2018, and further increased to 30% in 2021. Over the last three years, reports increased more among females (from 27% to 38%) than males (from 19% to 22%).
- » Reports of feeling left out or excluded increased from 15% in 2018 to 20% in 2021, with a greater increase among females (18% to 25%) than males (from 12% to 14%).

- » Females are more likely than males to feel like they have a friend to talk to (66% vs. 60%) but also more likely to feel lonely (38% vs. 22%) or excluded (25% vs. 14%).
- » Reports of having a supportive peer increase from 58% in 9th grade to 68% in 12th grade.
- » High school youth without consistent peer support are more likely to report victimization and mental health issues. For example, youth without peer support report more bullying victimization at school (21% vs. 15%), depressive symptoms (34% vs. 23%), and self-injury (23% vs. 16%) compared with those who do not report having peer support “often” or “very often.”

Conclusions

The 2021 administration of the MWAHS was the first round of data collection since the beginning of the COVID-19 pandemic, capturing changes in youth health and risk behaviors that occurred over an unprecedented period that encompassed major shifts in adolescents' school, family, community, and peer environments. The data reflects some of the largest shifts in adolescent behaviors we have observed over contiguous survey administrations – some which suggest reductions in harmful behaviors, such as substance use, while others point to alarming trends, including sharp increases in mental health problems.

Considerable improvements are reported in several areas related to substance use:

- » Despite serious concerns relating to a previous sharp rise in use of electronic vapor products, reports were down substantially in 2021, matching levels reported in earlier surveys when EVPs were first being introduced and marketed in ways that appealed to adolescents. Concern that flavored products and single-use disposable products would lead to increased use and addiction among adolescents does not appear to be reflected in the data. On the other hand, efforts to educate youth on the dangers of vaping appear to be successful, with the MWAHS data showing a substantial increase in perceived risk over the past three years. Important policy initiatives, such as those banning sales of flavored products, may also be contributing to the notable declines in use.
- » Marijuana use also dropped sharply in the last three years to the lowest levels every reported in the MWAHS. This has occurred despite the 2016 approval of recreational marijuana use, and the opening of retail outlets in the MetroWest region and across the state. While these contextual changes were purported by some to increase youth's access to marijuana and lower their perceived risk, the data shows a decrease in perceived access and use despite decreases in perceived risk. Increased prevention education within schools and communities is likely to have played a substantial role in the lower reports of marijuana use. Reduced access to marijuana, as well as EVPs, through social channels during the pandemic (such as through peer interactions, parties or other gatherings) may have also played a role in fewer adolescents initiating or adopting regular patterns of use of these substances.
- » Alcohol use among high school youth has continued to decline, including measures of lifetime use, current use, and binge drinking. While the decrease in drinking is not as great as the decreases in EVP and marijuana use, this steady trend is encouraging, and likely related to sustained education and prevention efforts that have targeted adolescent alcohol use and associated risks since the beginning of the MWAHS.

In contrast to the substance use findings, the 2021 data points to alarming trends in adolescent mental health, particularly among females:

- » The 2021 MWAHS shows the highest levels of depressive symptoms, self-injury, and suicidal thoughts ever reported at the high school level since the survey began in 2006. These unprecedented levels reflect increases in mental health problems among both sexes, but with disproportionate increases among females. Further, they occurred in parallel with the COVID-19 pandemic, an increase in cyberbullying victimization, and a decrease in peer support. While the rise in mental health problems is undoubtedly complex in nature and cannot be attributed to any one or two factors, the social isolation associated with COVID-19 and remote learning have likely played a role. Programs to support youth mental health and wellness – such as social emotional learning, 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 – and treatment for those are suffering – are more important than ever before.

- » Along with the rise in mental health problems is an increase in screen time, and an increase in reports of negative experiences and feelings related to social media. This is not surprising in light of the limited in-person interactions associated with COVID-19 along with the rise in several popular social media platforms, such as Instagram and TikTok. While youth report some benefits of social media, like increased social support and connections, they also report increased negative experiences, such as feeling excluded or badly about themselves in comparison to what they see posted by others.
- » There is also a concerning increase in cyberbullying, with rises among both females and males. The increase in cyberbullying is consistent with the overall increase in screen time and may also be related to the negative impact that COVID-19 has likely had on peer social interactions. School bullying did not increase despite the rise in online victimization. Females continue to be victimized online at much higher rates than males.

Alongside these changes in youth risk behaviors, there are also important changes in protective factors within the school setting:

- » After several years of improvement, the 2021 data shows substantial decreases in several indicators of school connectedness as well as adult support at school. This is undoubtedly related to the school disruptions and remote learning due to COVID-19. However, given the rise in mental health problems and the importance of schools in helping to provide and/or link students with appropriate services, it will be important for schools to address these changes and work to help students reconnect with adults and peers at school to benefit both their health and their learning.

The 8th administration of the MWAHS in 2021 identifies areas of both progress and concern, all occurring within the context of COVID-19. This data is crucial to helping to schools and communities understand where to focus their efforts after the unprecedented disruptions brought on by the pandemic, so that they can engage in data-driven decision-making and programming to best meet the physical and emotional needs of youth locally and across the region.

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High School Key Indicators

2006–2021 Trends
2021 Patterns by Sex
2021 Patterns by Grade

MetroWest Region High School Students (Grades 9-12)

2006-2021 Trends in Key Indicators

MetroWest Adolescent Health Survey

	Year of Survey (%)							
	2006	2008	2010	2012	2014	2016	2018	2021
	(16,680)	(20,406)	(23,187)	(24,459)	(24,355)	(24,385)	(24,746)	(22,903)
SUBSTANCE USE								
Lifetime cigarette smoking	35.3	33.3	25.9	22.0	17.3	13.2	12.2	10.5
Current cigarette smoking (past 30 days)	14.7	13.9	12.1	9.1	6.2	4.7	3.2	2.9
Lifetime electronic vapor product use*	–	–	–	–	30.5	27.9	41.1	23.5
Current electronic vapor product use (past 30 days)*	–	–	–	–	17.5	14.6	28.4	13.3
Lifetime alcohol use	66.5	62.8	58.0	55.6	53.8	51.7	50.0	44.5
Current alcohol use (past 30 days)	42.2	39.1	34.7	33.4	32.9	31.5	27.7	24.9
Binge drinking (past 30 days) [†]	25.1	23.2	20.8	18.7	17.5	16.9	15.8	14.5
Rode with driver who had been drinking (past 30 days)	25.2	25.8	22.5	19.5	16.7	14.1	13.5	12.2
Lifetime marijuana use	33.2	33.4	34.6	32.3	30.4	27.8	31.3	20.6
Current marijuana use (past 30 days)	20.2	22.8	23.5	21.5	20.3	19.2	21.2	12.3
Lifetime prescription drug misuse [‡]	11.0	10.1	10.1	8.8	7.3	5.8	4.8	4.2
VIOLENCE								
Physical fighting (past 12 months)	26.0	23.9	21.7	16.8	14.1	13.6	13.5	10.9
Physical fighting on school property (past 12 months)	8.7	8.3	7.4	5.5	4.2	3.9	4.0	3.1
Carried a weapon (past 30 days)	8.2	7.3	7.3	6.8	6.6	7.6	5.6	4.8
Carried a weapon on school property (past 30 days)	3.3	3.1	3.0	2.5	2.0	1.9	1.4	1.2
BULLYING VICTIMIZATION								
Bullying victim (past 12 months)	28.6	29.3	31.8	27.0	23.7	20.8	22.4	22.0
Bullying victim on school property (past 12 months)	25.5	25.9	28.2	22.9	20.0	17.1	18.9	17.1
Cyberbullying victim (past 12 months)	14.6	15.8	20.0	21.5	21.2	19.3	18.3	21.7
MENTAL HEALTH								
Life "very" stressful (past 30 days)	27.9	27.9	28.3	28.9	34.9	35.8	36.0	33.5
Depressive symptoms (past 12 months)	20.1	20.3	19.1	19.7	22.0	18.1	19.7	27.0
Self-injury (past 12 months)	13.2	13.2	14.0	15.6	15.2	12.9	13.5	18.7
Considered suicide (past 12 months)	10.0	10.5	11.6	13.0	12.9	12.3	13.1	15.6
Attempted suicide (past 12 months)	4.1	4.1	4.0	4.7	4.5	4.0	3.9	4.9
SEXUAL BEHAVIOR								
Lifetime sexual intercourse	28.9	29.4	28.3	26.6	24.3	21.9	22.1	17.8
Currently sexually active (past 3 months)	22.3	22.9	21.8	20.7	19.1	17.3	17.4	13.8
Condom use at last intercourse [§]	66.6	65.0	63.2	66.3	65.1	62.2	63.9	57.8
PHYSICAL ACTIVITY AND BODY WEIGHT								
Exercised for ≥60 minutes on 5 or more days/week	33.7	33.2	45.3	48.8	47.3	50.6	50.4	51.3
Overweight or obese ^{**}	19.9	19.3	19.3	19.2	20.3	21.0	20.7	20.2

* 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; in 2021, disposable products like Puff Bars, Stig, and Viigo were added to the definition.

† 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.

‡ Without a doctor's prescription; in 2021, added "or differently than how a doctor told you to use it"

§ Among currently sexually active youth

**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)

2021 Key Indicator Patterns by Sex

MetroWest Adolescent Health Survey

	Sex (%)		Total (%)
	Female (11,548)	Male (11,283)	(22,903)
SUBSTANCE USE			
Lifetime cigarette smoking	10.6	10.4	10.5
Current cigarette smoking (past 30 days)	2.4	3.4	2.9
Lifetime electronic vapor product use*	26.4	20.5	23.5
Current electronic vapor product use (past 30 days)*	15.1	11.5	13.3
Lifetime alcohol use	47.9	40.9	44.5
Current alcohol use (past 30 days)	28.0	21.7	24.9
Binge drinking (past 30 days) [†]	15.7	13.2	14.5
Rode with driver who had been drinking (past 30 days)	13.4	11.0	12.2
Lifetime marijuana use	21.7	19.6	20.6
Current marijuana use (past 30 days)	12.2	12.5	12.3
Lifetime prescription drug misuse [‡]	4.9	3.3	4.2
VIOLENCE			
Physical fighting (past 12 months)	6.1	15.9	10.9
Physical fighting on school property (past 12 months)	1.3	4.9	3.1
Carried a weapon (past 30 days)	3.0	6.7	4.8
Carried a weapon on school property (past 30 days)	0.7	1.8	1.2
BULLYING VICTIMIZATION			
Bullying victim (past 12 months)	26.0	17.7	22.0
Bullying victim on school property (past 12 months)	19.4	14.7	17.1
Cyberbullying victim (past 12 months)	25.7	17.5	21.7
MENTAL HEALTH			
Life "very" stressful (past 30 days)	44.6	21.4	33.5
Depressive symptoms (past 12 months)	36.0	17.2	27.0
Self-injury (past 12 months)	26.2	10.7	18.7
Considered suicide (past 12 months)	20.1	10.6	15.6
Attempted suicide (past 12 months)	6.2	3.4	4.9
SEXUAL BEHAVIOR			
Lifetime sexual intercourse	17.7	18.0	17.8
Currently sexually active (past 3 months)	13.8	13.8	13.8
Condom use at last intercourse [§]	54.1	61.9	57.8
PHYSICAL ACTIVITY AND BODY WEIGHT			
Exercised for ≥60 minutes on 5 or more days/week	43.9	59.5	51.3
Overweight or obese**	17.8	22.7	20.2

* 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; in 2021, disposable products like Puff Bars, Stig, and Viigo were added to the definition.

† 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.

‡ Without a doctor's prescription or differently than how a doctor told you to use it

§ Among currently sexually active youth

**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)

2021 Key Indicator Patterns by Grade

MetroWest Adolescent Health Survey

	Grade (%)				Total (%)
	9 th (6,306)	10 th (5,913)	11 th (5,432)	12 th (5,181)	(22,903)
SUBSTANCE USE					
Lifetime cigarette smoking	6.2	7.8	12.1	17.1	10.5
Current cigarette smoking (past 30 days)	1.4	2.2	3.0	5.4	2.9
Lifetime electronic vapor product use*	12.3	19.0	27.4	38.3	23.5
Current electronic vapor product use (past 30 days)*	6.0	11.1	15.8	22.4	13.3
Lifetime alcohol use	28.6	39.9	51.2	62.5	44.5
Current alcohol use (past 30 days)	10.5	21.1	30.1	41.8	24.9
Binge drinking (past 30 days) [†]	4.1	10.7	17.6	28.5	14.5
Rode with driver who had been drinking (past 30 days)	11.7	11.2	12.3	13.6	12.2
Lifetime marijuana use	7.1	14.7	25.4	39.2	20.6
Current marijuana use (past 30 days)	3.8	8.9	15.0	24.1	12.3
Lifetime prescription drug misuse [‡]	3.1	4.0	4.5	5.4	4.2
VIOLENCE					
Physical fighting (past 12 months)	13.4	11.1	9.4	9.1	10.9
Physical fighting on school property (past 12 months)	3.6	2.9	2.6	3.0	3.1
Carried a weapon (past 30 days)	4.2	4.8	4.7	5.7	4.8
Carried a weapon on school property (past 30 days)	0.9	0.9	1.1	1.9	1.2
BULLYING VICTIMIZATION					
Bullying victim (past 12 months)	24.8	22.3	20.6	19.4	22.0
Bullying victim on school property (past 12 months)	19.0	17.4	16.2	15.3	17.1
Cyberbullying victim (past 12 months)	22.1	23.0	21.2	20.1	21.7
MENTAL HEALTH					
Life "very" stressful (past 30 days)	22.3	30.3	38.1	46.2	33.5
Depressive symptoms (past 12 months)	23.3	26.6	28.9	29.9	27.0
Self-injury (past 12 months)	19.3	19.0	19.0	17.4	18.7
Considered suicide (past 12 months)	14.2	15.4	16.1	16.8	15.6
Attempted suicide (past 12 months)	4.7	5.2	4.6	4.8	4.9
SEXUAL BEHAVIOR					
Lifetime sexual intercourse	6.1	11.3	21.9	35.9	17.8
Currently sexually active (past 3 months)	4.5	8.2	17.2	28.3	13.8
Condom use at last intercourse [§]	62.9	64.6	59.6	53.6	57.8
PHYSICAL ACTIVITY AND BODY WEIGHT					
Exercised for ≥60 minutes on 5 or more days/week	55.8	53.5	48.6	45.9	51.3
Overweight or obese**	20.7	20.3	20.5	19.4	20.2

* 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; in 2021, disposable products like Puff Bars, Stig, and Viigo were added to the definition.

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