

MetroWest Adolescent Health Survey Regional Highlights Report

Informing data-driven school and community
health policies and practices

2023

MetroWest Region Middle School Youth

GRADES 7-8



**METROWEST
HEALTH**
FOUNDATION



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Regional Highlights from the 2023 MetroWest Adolescent Health Survey

MetroWest Region Middle School Report

Background

Since 2006, the MetroWest Health Foundation (MHF) has supported local communities in addressing the most pressing issues in adolescent mental and physical health through administration of the MetroWest Adolescent Health Survey (MWAHS). The MWAHS plays a critical role in the development and implementation of data-driven strategies, programs, and policies across the region. Having timely, local data not only helps schools and communities uncover trends in adolescent health and risk behaviors, but also increases their understanding of health disparities so that efforts can be made to support those youth in greatest need and promote equity across the region.

The 2023 MWAHS represents the 9th administration of this survey, administered biennially, except for a one-year delay during the COVID-19 pandemic. In total, 38,074 middle and high students in all 25 communities in the MetroWest region participated in the survey. The MWAHS initiative exemplifies the MHF's ongoing and deep commitment to identifying and understanding emerging adolescent health issues and supporting local efforts in schools and communities to enhance youth wellbeing across the region.

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 health-related behaviors and experiences that can lead to poor health, death, and disability among adolescents, including: substance use, violence, behaviors related to unintentional injury, lack of physical activity, unsafe sexual behaviors (at the high school level only), and mental health. Based on input from stakeholders in the MetroWest region, the MWAHS expands on these topics to gather more detailed information on areas of current concern (e.g., use of electronic vapor products, marijuana use, and mental health) as well as to explore other priority topics relevant to the current challenges youth are facing (e.g., digital media use, protective factors like adult support and school connectedness, and access to mental health services).

Collecting self-report data from youth is an important way of determining the prevalence of health and risk behaviors. There is no evidence that asking students about their health behaviors will encourage them to engage in those behaviors. Students respond truthfully when they perceive the survey as important, that their privacy is being protected, and that their participation is anonymous.² Internal reliability checks identify the small number of students who provide a pattern of implausible responses.

The 2023 survey is the second online survey administration of the MWAHS, which is a voluntary and anonymous survey. Many other school-based surveillance studies have switched from paper-and-pencil to online surveys in recent years, including the *National YRBS*¹ and *Massachusetts YRBS*.³ Research has shown that findings from online and paper-and-pencil surveys of youth risk behaviors are generally equivalent.⁴

A census of students in grades 7 and 8 in 30 middle schools in 24 districts in the MetroWest region participated in the 2023 Middle School MWAHS. In addition, 19 school districts chose to include 6th grade students in their survey. The survey was available to all students in English, Spanish, and Portuguese, and students could choose which language to use. As in all prior survey waves, local procedures were followed to inform parents/guardians of the survey in advance and give them the choice to opt out their child(ren). Students were also informed that their participation was voluntary, that they could skip any question they did not wish to answer, and that no names or other identifying information were being collected. Data collection at each school was guided by a standard protocol that protected the privacy of students' responses, with extra precautions taken through classroom and online platform procedures to ensure that data being collected electronically would remain anonymous.

In total, 15,639 students in grades 6 through 8 completed the 2023 survey, representing 89.0% of youth. Participants in grades 7 and 8 only are included in this report, representing 11,352 students, as 6th grade was not surveyed in all school districts. These grade 7-8 respondents were split evenly by sex (49.3% female and 50.7% male) and grade (49.9% in 7th grade and 50.1% in 8th grade). Racial/ethnic composition included 8.8% Asian, 3.9% Black, 19.4% Hispanic/Latino, 59.5% White, and 8.4% other/multiracial. 14.6% of youth identify as LGBTQ+ based on their sexual identity and/or gender identity. 14.1% of students report having a learning and/or physical disability.

About this Report

This *Regional Highlights* report summarizes youth risk behaviors related to poor health among middle school adolescents, including substance use, violence, bullying, mental health, physical activity, online behavior, as well as protective factors, such as adult support and school connectedness.

The MWAHS data allow for a valuable examination of behavioral and attitudinal trends across nine time points from 2006 to 2023, with emphasis in this report placed on recent trends. It is important to note that youth who participated in the 2023 survey are part of a cohort of youth that experienced the COVID-19 pandemic, resulting in substantial changes to their educational (e.g. remote learning), familial, and social environments as well as their health and risk behaviors, as noted in the 2021 MWAHS data. The 2023 data therefore may reflect cohort-specific patterns that began in earlier years.

This report also includes a description of risk and protective behaviors by grade and sex* for all key indicators. In addition, risk behaviors among youth based on race/ethnicity, sexual orientation/gender identity, and learning/physical disability status are provided when notable health disparities exist. Data on disparities in health and risk behaviors is provided in order to identify groups of students that may be in need of increased support, and are influenced by inequities in the forces and systems (e.g., economic, social, educational, health care) that influence the conditions of daily life.

* Sex is used to examine trends from 2006 to 2023 and not gender, as the survey didn't ask about gender until 2021.

Analyses looking at associations across various indicators are also described, most often focusing on the relationship between risk behaviors or protective factors with mental health given the attention that youth mental health has received locally and nationally in recent years. ***Note that these associations cannot be interpreted as causal***, meaning that it is not possible to tell the directionality based on cross-sectional survey data (data collected at one point in time that does not follow individuals over time). The associations are provided to increase understanding of the co-occurrence of risk behaviors, as well as associations of risk behaviors and protective factors, that will help in providing necessary supports to students.

Comparisons of MetroWest data with state and national trends are provided when similar data is available from other recent surveys. Comparisons with data from the most recent state and national YRBS are not provided as the most current state and national data available at the time of this report are from fall of 2021, two full years prior to the 2023 MWAHS and collected at a time when the immediate effects of the COVID-19 pandemic may have strongly impacted the data.

The 2023 MWAHS report provides important data to understand the current state of adolescent health, showing areas where progress is being made and highlighting areas needing continued efforts. The middle school data will help to focus school and community attention on the most critical aspects of adolescent health.

Key Findings: Substance Use

Conventional Cigarette Smoking

Lifetime cigarette smoking declined steadily from 2006 to 2016 and has remained at an all-time low of 3% over the past four surveys.

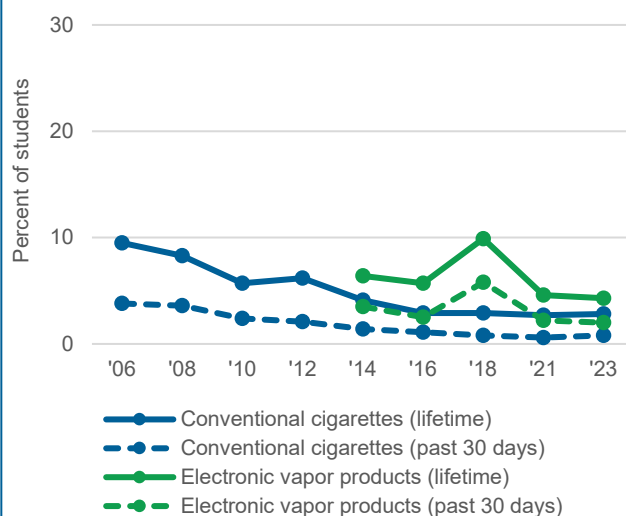
Trends in Conventional Cigarette Smoking (2006 to 2023)

- » Lifetime cigarette smoking decreased from a high of 10% in 2006 when the MWAHS began to 3% in 2016 and has remained at that level over the past three surveys (Figure 1).
- » Current cigarette smoking (in the past 30 days) decreased from 4% in 2006 to just under 1% in 2018, and has remained below 1% in all subsequent surveys.
- » Cigarette smoking has not changed among either females or males in recent surveys.

Sociodemographic Patterns in Conventional Cigarette Smoking (2023)

- » Smoking is low among both females and males. For example, 0.8% of both females and males report current smoking in the past 30 days.
- » Lifetime smoking is similar in 7th grade (2%) and 8th grade (3%), and current smoking is reported by less than 1% of students in each grade.
- » More Hispanic/Latino youth (7%) and Black youth (5%) have smoked in their lifetime compared to White youth (2%), other/multiracial youth (2%) and Asian youth (1%). Current smoking is low across all groups (from less than 1% to 2%).
- » LGBTQ+ youth are more likely to report lifetime cigarette smoking (5% vs. 2%) than heterosexual cisgender youth.
- » Youth with physical and/or learning disabilities are more likely to have ever smoked a cigarette (5% vs. 2%) compared to youth without disabilities.

Figure 1. Trends in Smoking and Vaping
2006-2023 Middle School MWAHS



Additional Findings Related to Conventional Cigarette Smoking

Comparisons with Other Data: Lifetime smoking is lower among MetroWest 8th grade students (3%) compared with 8th grade students in the nation (6%), according to the *2023 Monitoring the Future (MTF)* study, which surveys 8th, 10th, and 12th grade students annually.⁵ The decline in cigarette smoking in early years of the MWAHS followed by steadier reports in recent years is consistent with national trends among 8th grade youth from the MTF survey.

Use of Electronic Vapor Products Containing Nicotine*

Nicotine vaping among MetroWest middle school youth declined by half from 2018 to 2021, and has remained low in 2023, with 4% reporting lifetime EVP use and 2% reporting current use. Consistent with these sustained low levels of use, perceived risk remains high, with nine out of ten youth (90%) perceiving EVP use as moderate or great risk.

Trends in Use of EVPs Containing Nicotine (2014 to 2023)[†]

- » Lifetime EVP use decreased from its peak of 10% in 2018 to 5% in 2021, with 4% reporting lifetime EVP use in 2023 (Figure 1).
- » Current EVP use has remained steady at 2% since 2021, down from a high of 6% in 2018.
- » EVP use has not changed notably among either females or males since 2021; both sexes are using EVPs far less than when use peaked in 2018.
- » One percent of middle school youth have used EVPs on school property in the past 30 days, with no change since 2021.

Sociodemographic Patterns in Use of EVPs Containing Nicotine (2023)

- » Lifetime EVP use is higher among females (6%) than males (3%), with current use following a similar pattern.
- » Initiation of nicotine vaping increases slightly from 3% in 7th grade to 5% in 8th grade.
- » Nicotine vaping is higher among Hispanic/Latino and Black youth compared to other racial/ethnic groups. For example, lifetime EVP use is reported by 11% of Hispanic/Latino youth, 9% of Black youth, 3% of White youth, 2% of other/multiracial youth, and 1% of Asian youth.
- » EVP use is higher among LGBTQ+ youth compared to heterosexual cisgender youth (for example, 7% vs. 4% for lifetime use).
- » EVP use is also slightly higher among youth with disabilities compared to youth without disabilities (for example 6% vs. 4% for lifetime use).

Additional Findings Related to Electronic Vapor Products Containing Nicotine

Perceived Risk of EVPs: Consistent with sustained low levels of EVP use, perceived risk remains high, with 90% of youth reporting that they perceive EVP use as “moderate” or “great” risk (slightly lower than 2021 reports of 92%). Perceived risk does not differ notably by sex or grade. Lifetime use of EVPs is three times higher among youth who perceive no/slight risk compared to youth who perceive moderate/great risk of use (11% vs. 4%).

Access to EVPs: One in five youth (20%) feel it would be “fairly easy” or “very easy” to obtain EVPs if they wanted to, similar to 2021 reports (21%). Reports increase notably from 7th grade (15%) to 8th grade (24%).

Comparisons with Other Data: EVP use among 8th grade youth in MetroWest is lower than national levels from the MTF survey⁵ (5% vs. 17% for lifetime use; 3% vs. 7% for current use). The substantial decline in EVP use among middle school youth in the region in 2021, followed by steady reports in 2023, is consistent with findings from the 2023 MTF study during a similar period of time.

* Defined as vaping nicotine using electronic vapor products, such as JUUL, Vuse, Logic, and MyBlu. Electronic vapor products include e-cigarettes, vapes, vape pens, e-cigars, e-hookahs, hookah pens, and mods that contain nicotine. They also include disposable products that you can only use once, such as puff Vars, Stig, Viigo, and Fruyt Stik.

[†] 2014 was the first year that the MWAHS asked about use of electronic vapor products containing nicotine.

Alcohol Use

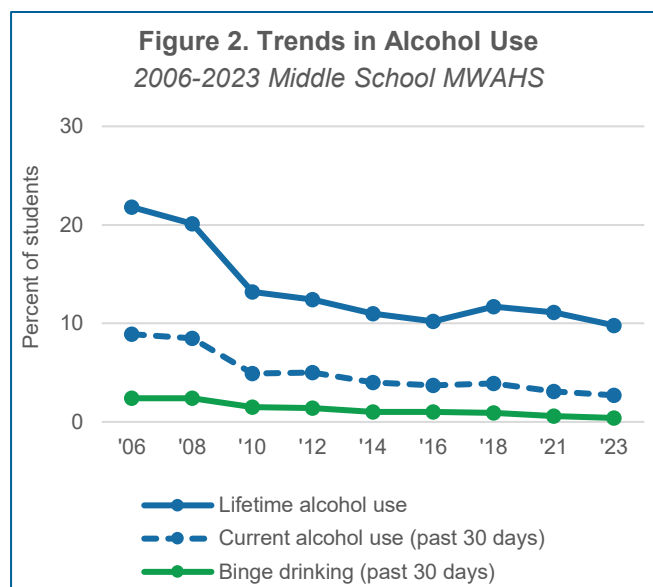
Alcohol use among middle school students dropped by more than half in the first decade of the MWAHS, with levels holding fairly steady over the past four surveys. In 2023, 10% of youth reported lifetime alcohol use and 3% reported current use.

Trends in Alcohol Use (2006 to 2023)

- » Lifetime alcohol use declined from 22% in 2006 to 11% in 2014, and has remained similar over the last four surveys in the 10-12% range (Figure 2).
- » Current alcohol use has remained similar at 3-4% since 2014, after decreasing from 9% in 2006.
- » Binge drinking is reported by only 0.4% of middle school youth in 2023, down from 2% in 2006.
- » Since 2021, there has been little change in lifetime and current drinking among either females or males.

Sociodemographic Patterns in Alcohol Use (2023)

- » Alcohol use in middle school does not differ by sex. For example, lifetime alcohol use is reported by 10% of both females and males.
- » Initiation of alcohol use increases from 8% in 7th grade to 11% in 8th grade.
- » Lifetime drinking is higher among Hispanic/Latino youth (16%) and Black youth (15%) than among other/multiracial youth (9%), White youth (8%), and Asian youth (4%). Current drinking and binge drinking are more similar across racial/ethnic groups.
- » Drinking is higher among LGBTQ+ youth than heterosexual cisgender youth (e.g., 13% vs. 9% for lifetime use).
- » Youth with disabilities are more likely to drink alcohol than nondisabled youth (for example, 16% vs. 9% for lifetime use).



Additional Findings Related to Alcohol Use

Riding with an Impaired Driver: Two percent of middle school youth have ever ridden in a car driven by a high school student who had been drinking.

Perceived Risk of Alcohol Use: Eighty-five percent of youth perceive having five or more drinks of alcohol once or twice a week as “moderate” or “great” risk. Perceived risk is similar among females (86%) and males (84%) and does not differ by grade.

Associations Between Alcohol Use and Mental Health: Alcohol use in middle school is associated with higher reports of mental health problems. For example, youth who report drinking in their lifetime are more likely to report depressive symptoms (40% vs. 14%) and intentional self-injury (31% vs. 8%) in the past 12 months.

Comparisons with Other Data: Reports of drinking among MetroWest middle school youth continue to be lower than national data. For example, 11% of 8th grade youth in the region report ever drinking alcohol, compared with 20% of 8th grade youth nationally based on the 2023 MTF study.⁵ Both the MWAHS and MTF show declines in drinking by around half since 2006.

Marijuana Use

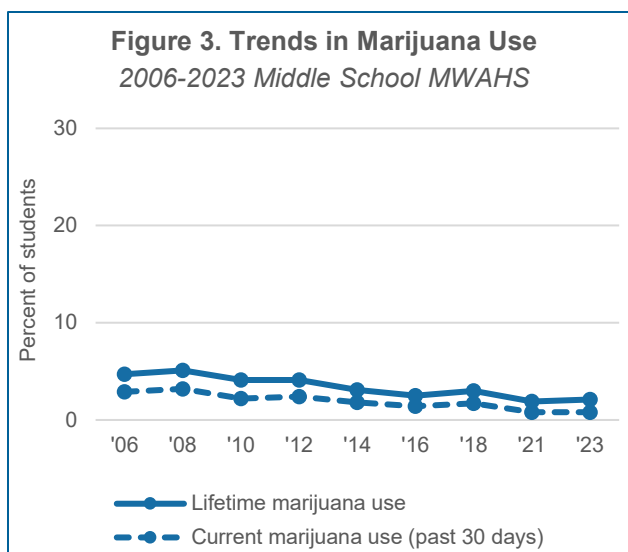
Marijuana use among middle school youth has slowly and steadily declined since the early years of the MWAHS, with only 2% of youth reporting lifetime use in 2021 and 2023, and less than 1% of youth reporting current use.

Trends in Marijuana Use (2006 to 2023)

- » Lifetime marijuana use decreased from 5% in 2006 to 3% in 2014-2018, lowering further to 2% in 2021-2023 (Figure 3).
- » Current marijuana use has remained below 1% since 2021, down from 3% in 2006.
- » Lifetime marijuana use decreased notably among males since the beginning of the MWAHS (from 6% in 2006 to 2% in 2021), whereas use among females has been similar at 2-3% across all surveys.

Sociodemographic Patterns in Marijuana Use (2023)

- » 2023 reports of lifetime and current marijuana do not differ by sex (2% lifetime use and 1% current use for both females and males).
- » Lifetime marijuana use increases from 1% in 7th grade to 3% in 8th grade.
- » Hispanic/Latino (5%) and Black youth (4%) are more likely to report lifetime marijuana use than White youth, other/multiracial youth, and Asian youth (1% for each). Current use is low among all racial/ethnic groups (from less than 1% to 2%).
- » LGBTQ+ youth are more likely to report lifetime marijuana use than heterosexual cisgender youth (4% vs. 2%).
- » Youth with disabilities are more likely to report lifetime marijuana use than nondisabled youth (4% vs. 2%).



Additional Findings Related to Marijuana Use

Perceived Risk of Marijuana Use: Perceived risk of marijuana use once or twice a week as “moderate” or “great” risk increased from 79% in 2021 to 84% in 2023, returning to levels reported in 2018 when this was first assessed. Perceived risk is slightly higher among females than males (86% vs. 83%) and is similar by grade.

Access to Marijuana: Eleven percent of youth believe it would be fairly easy or very easy to get marijuana if they wanted to, down from 19% in 2018. Ease of access does not differ by sex, but increases from 8% in 7th grade to 15% in 8th grade.

Associations Between Marijuana Use and Mental Health: Youth who report lifetime marijuana use are more likely to also report mental health problems, such as depressive symptoms in the past 12 months (58% vs. 16%) and seriously considering suicide in their lifetime (55% vs. 13%).

Comparisons with Other Data: A much smaller proportion of MetroWest 8th grade youth have used marijuana in their lifetime (3%) compared with the nation (12%) based on the 2023 MTF study.⁵ The slow decline in marijuana use in MetroWest since 2006 is consistent with a decline in national middle school data from MTF, as are the steady reports in recent years.

Key Findings: Violence

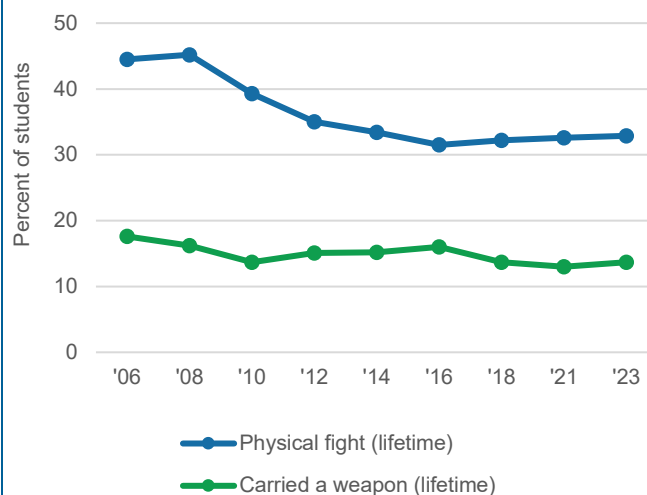
Lifetime reports of physical fighting have been steady from 2014 to 2023 at 32-33%, down substantially from early years of the MWAHS. Reports of recent weapon carrying have also been similar in recent surveys, with 14% reporting carrying a weapon in their lifetime.

Physical Fighting

Trends in Physical Fighting (2006 to 2023)

- » The proportion of youth who have ever been in a physical fight decreased from a high of 45% in 2006-2008 to 33% in 2014, and has remained steady at 32-33% over the last five surveys (Figure 4).
- » Fighting among both females and males is lower overall in 2023 compared with the early years of the MWAHS. However, from 2016 to 2023 there has been a small increase among females (from 16% to 20% in 2023) whereas reports among males have been similar at 46-47% during this time.
- » Thirteen percent of youth report fighting on school property in their lifetime, having increased gradually from a low of 10% in 2012. Reports are slightly higher among both females and males in recent surveys. Still, reports are far lower than in 2006 when the MWAHS began (19%).

Figure 4. Trends in Fighting and Weapon Carrying
2006-2023 Middle School MWAHS



Sociodemographic Patterns in Physical Fighting (2023)

- » Reports of lifetime fighting are more than twice as high among males (46%) as females (20%). Reports of fighting on school property are more than three times higher among males (20%) as females (6%).
- » Reports of fighting overall and on school property do not differ notably by grade in middle school.
- » Lifetime fighting is reported by 52% of Black youth, 40% of Hispanic/Latino youth, 36% of other/multiracial youth, 30% of white youth, and 27% of Asian youth. Lifetime fighting on school property follows a similar pattern by race/ethnicity, with the highest reports among Black youth (26%) and Hispanic/Latino youth (21%), followed by other/multiracial youth (12%), White youth (10%), and Asian youth (7%).
- » Reports of fighting do not differ by sexual/gender identity.
- » Youth with disabilities are more likely to report having been in a physical fight in their lifetime (47% vs. 30%) and on school property (21% vs. 11%) compared to youth without disabilities.

Weapon Carrying

Trends in Weapon Carrying (2006 to 2023)

- » Lifetime weapon carrying has been steady at 13-14% since 2018, down from 18% when the MWAHS began (Figure 4).
- » Recent weapon carrying (in the past 30 days) has been steady at 5% since 2018, down from 8% in 2008.
- » Lifetime weapon carrying on school property has been steady at 1% or lower since 2010, down from 3% in 2006.
- » Weapon carrying has declined notably among males (from 28% in 2006 to 17% in 2021), with slightly higher reports in 2023 (20%). Among females, reports ranged from 5-7% from 2006 to 2018, with 8% reporting weapon carrying in 2021 and 2023.

Sociodemographic Patterns in Weapon Carrying (2023)

- » Consistent with gender patterns for physical fighting, overall reports of weapon carrying remain much higher among males than females (20% vs. 8%).
- » Reports of lifetime weapon carrying are similar by grade.
- » Lifetime weapon carrying is reported by 17% of other/multiracial youth, 15% of White youth, 13% of Hispanic/Latino youth, 13% of Black youth, and 9% of Asian youth. Weapon carrying on school property is very low (1% or lower) across all racial/ethnic groups.
- » Weapon carrying does not differ notably by sexual/gender identity.
- » Youth with disabilities are far more likely to carry weapons in their lifetime (23% vs. 12%) than youth without disabilities.

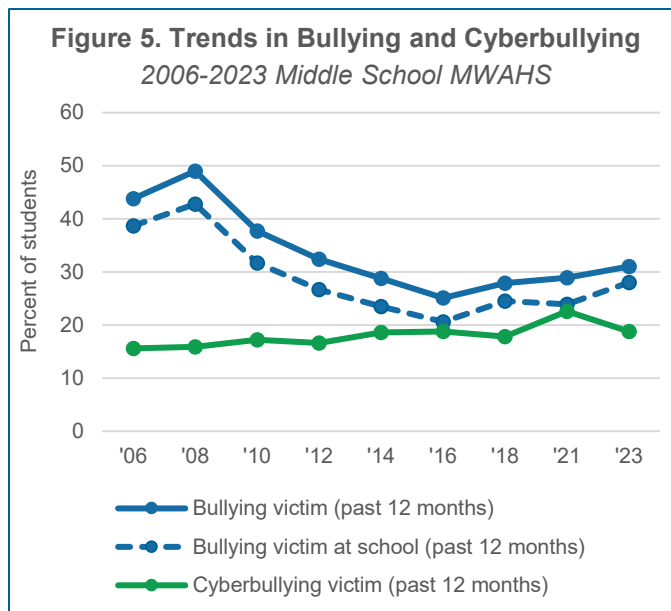
Key Findings: Bullying and Cyberbullying

After reaching a low of 25% in 2016, overall reports of bullying have increased steadily over the past three surveys, with 31% of youth reporting being bullied in the last 12 months in 2023, and 28% being bullied on school property. In contrast, cyberbullying is slightly down from its peak in 2021, with 19% of students reporting online victimization in 2023.

Bullying

Trends in Bullying (2006 to 2023)

- » Overall reports of bullying in the past 12 months increased from a low of 25% in 2016 to 29% in 2021, and rose further to 31% in 2023 (Figure 5). This is still far lower than when bullying peaked at 49% in 2008.
- » Bullying on school property follows a similar trend, increasing from a low of 21% in 2016 to 24-25% in 2018-2021, further increasing to 28% in 2023.
- » Bullying victimization at school increased more among males (from 20% in 2021 to 26% in 2023) than females (from 28% to 31%), decreasing the disparity in reports by sex.
- » Reports of bullying others at school increased slightly from 6% in 2021 to 8% in 2023, consistent with the increase in school bullying victimization.
- » Identity-based bullying reports are slightly higher in 2023 for bullying due to: race or ethnicity (from 9% to 13%), religion or culture (from 7% to 9%), and appearance (from 30% to 33%). In contrast, reports of being bullied due to gender, sexual identity, or disability are similar or slightly lower in 2023.



Sociodemographic Patterns in Bullying (2023)

- » Bullying victimization continues to be higher among females than males. For example, 31% of females and 26% of males report being bullied on school property in the past year.
- » Victimization is slightly higher in 7th grade (33%) than 8th grade (29%).
- » Eleven percent of youth report bullying someone else in the past 12 months, and 8% of students did so on school property. Reports of bullying others are slightly higher among males than females (for example, 9% vs. 7% for bullying on school property).
- » Bullying victimization at school is similar among Black, Hispanic/Latino, White, and other/multiracial youth (from 28-31%), and lower among Asian youth (22%).
- » LGBTQ+ youth are far more likely to be bullied at school than heterosexual cisgender youth (44% vs. 26%). Thirty-one percent of LGBTQ+ youth have been bullied or verbally harassed due to their sexual identity.
- » Youth with physical and/or learning disabilities are also heightened risk of victimization at school compared to youth without disabilities (45% vs. 25%). Twenty-three percent of youth with disabilities have been bullied or verbally harassed specifically due to their disability.

Additional Findings Related to Bullying

Help-Seeking Among Bullying Victims: Among students bullied at school in the past year, only two out of five (40%) talked to a school adult and 57% talked to a parent or adult outside of school about being bullied.

Associations Between Bullying and Mental Health: Bullying victimization is linked with reports of poor mental health. For example, youth who report being bullied at school in the past 12 months are more likely to report depressive symptoms (32% vs. 11%) and self-injury (22% vs. 6%) during this time, and to report seriously considering suicide (26% vs. 9%) and making a suicide attempt (9% vs. 2%) in their lifetime.

Cyberbullying

Trends in Cyberbullying (2006 to 2023)

- » Reports of being cyberbullied in the past 12 months increased from 16% in 2006 to 23% in 2021, but then lowered to 19% in 2023 (Figure 5).
- » Cyberbullying decreased among both sexes, but the decrease was slightly greater among females (from 27% in 2021 to 22% in 2023) than among males (from 19% to 16%).
- » Reports of cyberbullying someone else have been steady at 6% since 2012, down from 11% in 2006.
- » Five percent of all students reported being bullied or verbally harassed online in the past 12 months due to their race or ethnicity, 3% due to their religion or culture, 3% due to their gender, 3% due to their sexual identity, 3% due to a disability, and 13% due to their appearance. These reports are similar to 2021, with the exception of slight declines in cyberbullying due to gender and sexual identity.

Sociodemographic Patterns in Cyberbullying (2023)

- » Cyberbullying victimization continues to be higher among females (22%) than males (16%), though the gap has narrowed slightly in recent surveys.
- » Cyberbullying is reported by 19% of both 7th grade and 8th grade youth.
- » Reports of cyberbullying are highest among Hispanic/Latino youth (24%), followed by Black youth and other/multiracial youth (21% for each), White youth (18%), and Asian youth (12%).
- » Cyberbullying victimization is higher among LGBTQ+ youth than heterosexual cisgender youth (26% vs. 18%).
- » Youth with physical and/or learning disabilities are more likely to be cyberbullied than youth without learning disabilities (29% vs. 17%).

Additional Findings Related to Cyberbullying

Help-Seeking Among Cyberbullying Victims: The vast majority of cyberbullying victims do not seek help from adults. Among students who were cyberbullied in the past year, only 22% had talked to an adult at school and 30% 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 and consistent with patterns in prior surveys.

Associations Between Cyberbullying and Mental Health: Youth who were cyberbullied are more likely to report mental health problems than nonvictims, including depressive symptoms (37% vs. 12%) and self-injury (24% vs. 7%) in the past 12 months, and seriously considering suicide (29% vs. 10%) and attempting suicide (10% vs. 3%) in their lifetime.

Comparisons with Other Data: The recent decrease in cyberbullying in the MetroWest region is in contrast to reports on cyberbullying from the Cyberbullying Research Center⁶, which show a continued increase in past 30-day cyberbullying from 2016 to 2023 among a national sample of 13-17 year-old youth.

Key Findings: Mental Health

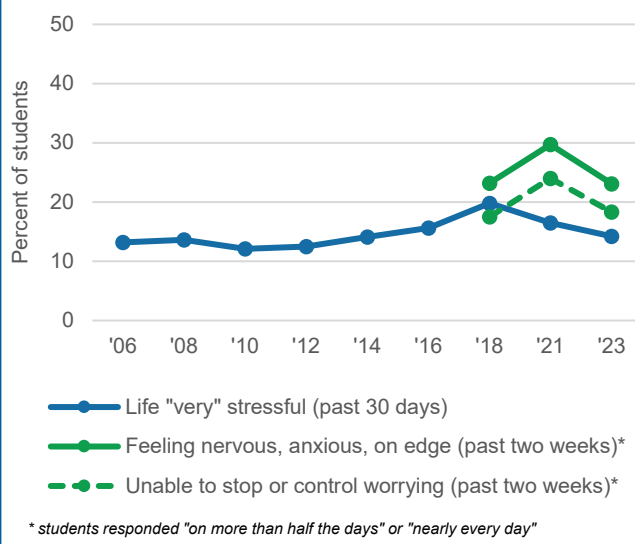
In 2023, there are notable declines in mental health problems – including anxiety, depressive symptoms, self-injury, and suicidal thoughts – since they peaked in 2021. Reports of these mental health problems receded to pre-pandemic levels, but are still elevated compared to earlier years of the MWAHS. While mental health problems remain much higher among females than males, there were notable improvements among females from 2021 to 2023.

Stress and Anxiety

Trends in Stress and Anxiety (2006 to 2023)

- » After increasing from 13% in 2006 to a high of 20% in 2018, reports of life being “very” stressful in the past 30 days decreased to 17% in 2021 and further declined to 14% in 2023 (Figure 6).
- » There were recent declines in stress among females (from 24% in 2021 to 20% in 2023), whereas reports among males were similar at 9-10% over the past two surveys.
- » Stress related to school issues is most common, reported by 52% of youth, which is similar to 2021 reports (51%). There are notable decreases from 2021 to 2023 in stress due to appearance issues (from 33% to 30%), physical/emotional health issues (28% to 21%), social issues (from 31% to 28%) and family issues (from 19% to 17%). Stress related to safety remained similar over the past two surveys at 5-6%.
- » Reports of anxiety symptoms decreased from 2021 to 2023, returning to levels reported in 2018 when anxiety was first measured on the MWAHS. For example, in 2023, 23% of youth reported feeling nervous, anxious, or on edge on “at least half the days” or “nearly every day” in the past two weeks, down from 30% in 2021. Similarly, there has been a decline in reports of feeling unable to stop or control worrying, from 24% in 2021 to 18% in 2023.
- » Anxiety decreased more among females than males. For example, feeling nervous, anxious, or on edge decreased from 43% in 2021 to 34% in 2023 among females, and from 17% to 12% among males.
- » There are also decreases in reports of symptoms related to stress, anxiety, and worrying that impact daily functioning at and outside of school, as well as physical and mental well-being. Twenty-five percent of youth report feeling tired or having little energy (down from 30% in 2021), 23% report sleeping problems (down from 27%), 25% report having trouble concentrating in school (down from 27%), and 19% report having a poor appetite or eating too much (down from 23%) “often” or “very often” in the past two weeks.

Figure 6. Trends in Stress and Anxiety
2006-2023 Middle School MWAHS



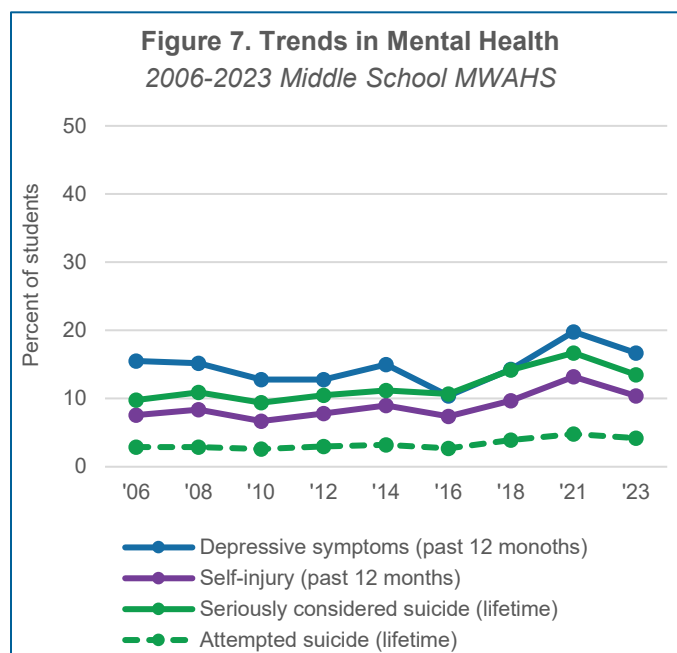
Sociodemographic Patterns in Stress and Anxiety (2023)

- » Reports of overall stress are more than twice as high among females as males (20% vs. 9%). Females are also more likely than males to report stress due to specific issues, such as school issues (63% vs. 41%), social issues (39% vs. 16%), and family issues (24% vs. 10%).
- » Overall stress increases slightly by grade, from 13% in 7th grade to 15% in 8th grade.
- » Consistent with reports of stress, females are nearly three times more likely to report anxiety as males. For example, 28% of females and 9% of males report feeling unable to stop or control worrying.
- » Reports of anxiety symptoms increase by grade. For example, feeling nervous, anxious or on edge increases from 21% in 7th grade to 25% in 8th grade.
- » Recent stress is highest among Hispanic/Latino youth (18%) and Black youth (18%), followed by White youth (14%), other/multiracial youth (13%), and Asian youth (11%). Reports of anxiety are highest among Hispanic/Latino youth. For example, feeling unable to stop or control worrying is reported by 23% of Hispanic/Latino youth, 18% of Black youth, 17% of White youth, 16% of other/multiracial youth, and 14% of Asian youth.
- » LGBTQ+ youth are far more likely to report stress than heterosexual cisgender youth (31% vs. 12%). Reports of anxiety among LGBTQ+ youth are also higher, with 38% of LGBTQ+ youth reporting being unable to stop or control worrying vs. 15% of heterosexual cisgender youth.
- » Youth with disabilities are more likely to experience stress and anxiety than youth without disabilities. For example, reports of life being "very" stressful in the past 30 days are about twice as high among youth with disabilities (25% vs. 12%), as are reports of being nervous, anxious, or worried (37% vs. 19%).

Depressive Symptoms, Self-Injury, and Suicidality

Trends in Depressive Symptoms, Self-Injury and Suicidality (2006 to 2023)

- » Serious mental health problems decreased notably from their peak in 2021 (Figure 7). Depressive symptoms in the past 12 months declined from 20% in 2021 to 17% in 2023, but still remain somewhat higher than 2018 pre-pandemic levels (14%). Intentional self-injury lowered from 13% in 2021 to 10% in 2023, and lifetime reports of seriously considering suicide also declined from 17% to 14%, both returning to 2018 levels. Lifetime suicide attempts have remained similar in the 4-5% range since 2018, just above 2006-2016 levels (3%).
- » The declines in mental health conditions were primarily driven by females. For example, depressive symptoms decreased from 27% in 2021 to 22% in 2023 among females but were similar at 11-12% among males. Similarly, suicidal ideation lowered from 23% in 2021 to 18% in 2023 among females, whereas reports were steady at 10% among males. Reports of intentional self-injury follow a similar pattern.



Sociodemographic Patterns in Depressive Symptoms, Self-Injury and Suicidality (2023)

- » Despite the decline in reports of mental health problems among females, reports are still around twice as high among females as males (22% vs. 11% for depressive symptoms, 15% vs. 6% for self-injury, 18% vs. 10% for suicidal thoughts, and 6% vs. 3% for suicide attempts). However, the magnitude of the disparity in mental health conditions between females and males is lower in 2023 compared with 2021.
- » Reports of mental health problems do not vary notably from 7th to 8th grade.
- » Mental health problems are more prevalent among Hispanic/Latino and Black youth, compared to other racial/ethnic groups. For example, depressive symptoms are reported by 26% of Hispanic/Latino youth, 23% of Black youth, 16% of other/multiracial youth, 14% of White youth, and 11% of Asian youth. Similarly, suicidal thoughts are reported by 18% of Hispanic/Latino youth, 18% of Black youth, 14% of other/multiracial youth, 12% of White youth, and 12% of Asian youth.
- » LGBTQ+ youth are nearly three times more likely than heterosexual cisgender youth to report depressive symptoms (38% vs. 14%), and around four times more likely to report self-injury (31% vs. 7%), seriously considering suicide (36% vs. 10%), and attempting suicide (12% vs. 3%).
- » Youth with physical and/or learning disabilities are also at higher risk of mental health problems, including depressive symptoms (30% vs. 14%), self-injury (22% vs. 9%), seriously considering suicide (26% vs. 11%), and attempting suicide (10% vs. 3%).

Additional Findings Related to Mental Health

Mental Health Services Use: Many students experiencing mental health problems are not receiving mental health services. Among students reporting depressive symptoms, 39% talked to a school counselor, therapist, or psychologist at school, and 12% talked to a school nurse. Thirty-three percent of students with depressive symptoms talked to a therapist, psychologist, or other mental health professional outside of school.

Barriers to School-Based Mental Health Services Use: The most common barriers to not seeking help for emotional challenges or problems at school include: feeling like they should handle problems on their own (38%), not wanting other students to know they were seeking help at school (36%), not having time/not wanting to miss class (34%), being too embarrassed or scared to talk about it (33%), not thinking that counseling at school would help (32%), and believing that a school/counselor might not understand them or the challenges they were experiencing (31%).

Comparisons with Other Data: The decrease in mental health issues in the MWAHS are consistent with findings of decreased emergency department visits among adolescents aged 12-17 (and especially, girls) for mental health conditions overall as well as suicide-related behaviors from fall 2021 to fall 2022, based on data from the National Syndromic Surveillance Program (NSSP).⁷

Key Findings: Physical Activity, Weight, and Sleep

In 2023, 75% of students engaged in vigorous physical activity on 3 or more days per week, down slightly over the past three surveys. One in five youth (20%) were overweight or obese based on self-reported height and weight, which has not changed notably since the MWAHS began.*

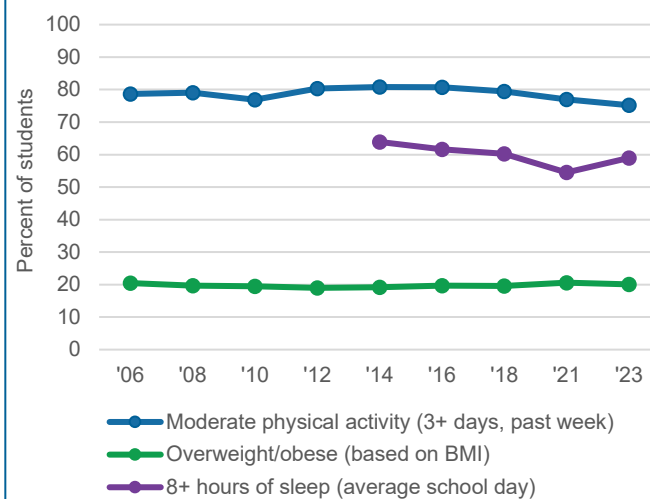
Less than two-thirds of middle school youth (59%) get eight or more hours of sleep per night, though reports are higher than in 2021 (55%).

Physical Activity

Trends in Physical Activity (2006 to 2023)

- » Vigorous physical activity on three or more days in the past week lowered from 81% in 2016 to 77% in 2021, dropping further to 75% in 2023 (Figure 8).
- » Moderate physical activity† on five or more days in the past week also decreased, from 58% in 2021 to 53% in 2023, down from a high of 62% in 2014.
- » There were recent decreases in moderate physical activity among females (from 51% in 2021 to 47% in 2023) and males (from 66% to 59%).
- » Despite the decrease in physical activity reports, there was an increase in sports team participation (from 69% in 2021 to 74% in 2023, approaching pre-pandemic levels).

Figure 8. Trends in Physical Activity, Body Weight, and Sleep
2006-2023 Middle School MWAHS



Sociodemographic Patterns in Physical Activity (2023)

- » Reports of physical activity are higher among males than females (80% vs. 71% for vigorous activity; 59% vs. 47% for moderate activity).
- » Physical activity does not differ notably by grade.
- » Physical activity is lowest among Black and Hispanic/Latino youth. For example, moderate physical activity is reported by 37% of Black youth, 38% of Hispanic/Latino youth, 51% of Asian youth, 51% of other/multiracial youth, and 59% of White youth.
- » LGBTQ+ youth report less physical activity than heterosexual cisgender youth (e.g., 33% vs. 58% for moderate physical activity).
- » Physical activity does not differ notably among youth with and without disabilities.

* Vigorous physical activity is defined as activity that makes you sweat and breathe hard, such as basketball, soccer, running, swimming laps, fast bicycling, fast dancing, or similar aerobic activities, for at least 20 minutes 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 some of the time for at least one hour on five or more of the past seven days.

Additional Findings Related to Physical Activity

Associations Between Physical Activity and Mental Health: Youth who exercise regularly report lower levels of mental health problems. For example, youth who report moderate exercise on five or more days/week are less likely to report depressive symptoms (13% vs. 21%) than youth who do not exercise this amount. Sports team participation is also related to lower mental health problems compared with youth who do not play sports (e.g., 14% vs. 25% for depressive symptoms).

Weight and Weight Control Behaviors

Trends in Weight and Related Indicators (2006 to 2023)

- » The proportion of youth who are overweight or obese has been similar in the range of 19-21% since 2006, with 20% being overweight or obese in 2023 (Figure 8).*
- » 25% of youth describe themselves as slightly or very overweight in 2023; prior reports have ranged from 23-24%.

Sociodemographic Patterns in Weight and Related Indicators (2023)

- » More males than females are overweight/obese (22% vs. 18%), consistent with prior surveys. However, many more females than males are trying to lose weight (44% vs. 28%).
- » Overweight/obesity increases from 18% in 7th grade to 22% in 8th grade.
- » More males than females report exercising to lose weight or keep from gaining weight (72% vs. 65%). However, more females report other weight control behaviors such as: restricting food or calories (41% vs. 35%), skipping meals (29% vs. 17%), or fasting (11% vs. 7%).
- » Overweight/obesity is highest among Black youth (34%) and Hispanic/Latino youth (33%), with much lower rates among White youth (18%), other/multiracial youth (17%), and Asian youth (14%). More Hispanic/Latino youth report they are trying to lose weight (49%) compared to other racial/ethnic groups (32-38%).
- » LGBTQ+ youth are more likely than heterosexual cisgender youth to be overweight/obese (26% vs. 19%), and to report that they are trying to lose weight (44% vs. 35%).
- » Overweight/obesity is also slightly higher among youth with disabilities than those without (25% vs. 19%), and more youth with disabilities are trying to lose weight (40% vs. 35%).

Sleep

Trends in Sleep (2014 to 2023)

- » Fifty-nine percent of middle school youth get eight or more hours of sleep on an average school night, up from 55% in 2021, but lower than when these data were first collected in 2014 (64%) (Figure 8).
- » The recent increase in sleep from 2021 to 2023 is greater among males (from 60% to 66%) than females (from 50% to 52%). However, despite the increase in sleep among both sexes, reports among females are still notably lower than 2014 levels, whereas reports among males are similar to earlier surveys.

Sociodemographic Patterns in Sleep (2023)

- » Males are much more likely to get 8 or more hours of sleep than females (66% vs. 52%).
- » Getting 8 or more hours of sleep decreases from 63% in 7th grade to 55% in 8th grade.

* 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 85th percentile or above for body mass index by age and gender, based on reference data.

- » As noted earlier, 23% of youth – representing 31% of females and 15% of males – report sleep issues related to being stressed, anxious, or worried.
- » Nearly half of youth (45%) believe that use of digital media makes their sleep a little or a lot worse (49% of females and 42% of males).
- » Asian youth and White youth are most likely to get adequate sleep (62% for each), followed by other/multiracial youth (58%), Black youth (53%), and Hispanic/Latino youth (50%).
- » LGBTQ+ youth are far less likely to get adequate sleep than heterosexual cisgender youth (38% vs. 62%).
- » Youth with disabilities are less likely to get adequate sleep than youth without disabilities (48% vs. 61%).

Additional Findings Related to Sleep

Associations Between Sleep and Mental Health: Youth who sleep less than eight hours per night are more likely to report poor mental health, including stress (23% vs. 8%) and depressive symptoms (26% vs. 10%), than youth who get adequate sleep.

Key Findings: Online Behavior

Time spent on social media has nearly doubled since it was first measured in 2016, and gaming has also increased in recent surveys among middle school youth. One in three youth (32%) now spend 3 or more hours daily on social media, and one in four youth (24%) spend three or more hours daily gaming. Nearly half of youth (47%) spend at least three hours daily on their smartphone (not for school or homework).

Time Spent Online

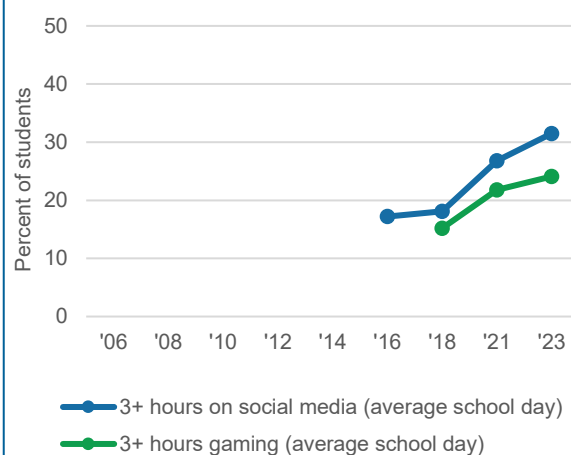
Trends in Time Spent Online (2016 to 2023)

- » Time spent on social media (3 or more hours on an average school day) increased steadily from 17% in 2016 to 27% in 2021, increasing further to 32% in 2023 (Figure 9). There were recent increases in social media use among both females (from 34% in 2021 to 38% in 2023) and males (from 20% to 26%).
- » Time spent gaming (3 or more hours daily) increased from 15% in 2018 to 22% in 2021, and further to 24% in 2023. The recent increase in gaming is driven by males (from 30% to 34%) whereas reports were more similar among females (13-15%).

Sociodemographic Patterns in Time Spent Online (2023)

- » Females are more likely to spend 3 or more hours on social media daily (38% vs. 26%), but males are more likely to report gaming for 3 or more hours daily (34% vs. 15%).
- » Reports of high social media use increase slightly from 7th grade (29%) to 8th grade (34%), but reports of gaming do not differ by grade.

Figure 9. Trends in Online Behavior
2006-2023 Middle School MWAHS



- » Nearly half of youth (47%) spend three or more hours daily on their smartphones (not for school or homework). High smartphone use is reported by 54% of females and 39% of males and increases from 43% in 7th grade to 50% in 8th grade.
- » High social media use is highest among Hispanic/Latino youth (47%) and Black youth (42%), with lower reports among other/multiracial youth (29%), White youth (29%), and Asian youth (18%). Reports of frequent gaming follow a similar pattern by race/ethnicity.
- » Social media time does not differ notably by gender/sexual identity, but gaming is higher among LGBTQ+ youth than heterosexual cisgender youth (29% vs. 23%).
- » Youth with disabilities spend more time on social media (39% vs. 30%) and gaming (30% vs. 23%) than youth without disabilities.

Additional Findings Related to Online Behavior

Social Media Experiences: Youth report both positive and negative experiences and perceptions related to social media. However, there are declines in reports of some positive experiences. For example, social media helps youth feel more connected to peers (59% in 2023, down from 61% in 2021), helps them find people with common interests and hobbies (56%, down from 65%), and provides a source of social support (26%, down from 30%). On the negative side, social media makes a sizeable minority of students feel badly about themselves or excluded (21%, down from 23% in 2021), keeps them from doing important things like homework or family responsibilities (28%, up from 25%), and has caused serious conflicts with family members (14%, up from 11%). Forty-two percent of all youth (47% of females and 36% of males) feel they spend too much time on social media, up slightly from 40% in 2021.

Negative Impacts of Digital Media Use: Negative effects of digital media use include worsening of: sleep (45%), attention in school (24%), mental health (24%), academic performance (21%), and overall mood (20%). Females are more likely than males to report worsening of sleep (49% vs. 42%), mental health (28% vs. 20%), and mood (22% vs. 18%).

Associations Between Social Media Use and Cyberbullying: 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 (29% vs. 14%) and perpetration (11% vs. 4%).

Associations Between Social Media Use, Substance Use, and Mental Health: 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 (15% vs. 7%) and lifetime use of EVPs (8% vs. 2%) than lower users. They are also more than twice as likely to report depressive symptoms (26% vs. 12%) and seriously considering suicide (20% vs. 11%).

Key Findings: Protective Factors

After declining in 2021 for the first time since the MWAHS began, reports of having an adult at school to talk to about a problem increased to 69% in 2023 but are still lower than in early years of the MWAHS. Reports of school connectedness do not show the same improvement, with indicators of school connectedness being similar to or slightly lower than in 2021.

Outside of school, 91% of youth have a supportive parent or other adult, up slightly from 2021 reports (88%). Reports of peer support also show small improvements since the last survey, but are still lower than before the pandemic.

Adult Support

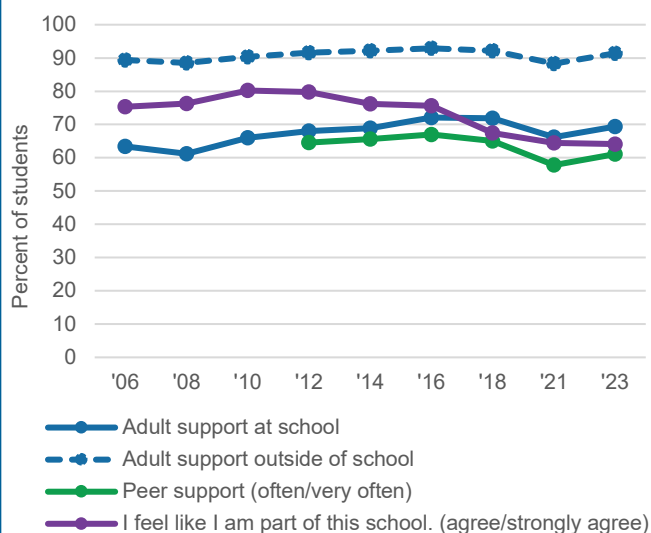
Trends in Adult Support (2006 to 2023)

- » After declining from a high of 72% in 2016-2018 to a low of 66% in 2021, reports of adult support at school in 2023 are slightly higher at 69%. The recent increase was primarily due to an increase among females, from 66% in 2021 to 71% in 2023, whereas reports are similar among males at 67-68% (Figure 10).
- » Adult support outside of school increased from 88% in 2021 to 91% in 2023, returning closer to pre-pandemic levels. There were recent increases among females (from 85% to 90%) and males (from 91% to 93%).

Sociodemographic Patterns in Adult Support (2023)

- » Adult support at school is slightly higher among females than males (71% vs. 68%), whereas adult support outside of school is slightly higher among males than females (93% vs. 90%).
- » Adult support, both at school and outside of school, is similar by grade.
- » White youth are more likely to have adult support at school (73%), compared to Asian youth (67%), other/multiracial youth (65%), Black youth (64%) and Hispanic/Latino youth (63%). Outside of school, adult support is also higher among White youth (94%), compared to Asian youth (89%), other/multiracial youth (88%), Hispanic/Latino youth (86%) and Black youth (85%).
- » LGBTQ+ youth are less likely to have adult support at school (64% vs. 70%) and outside of school (82% vs. 93%) than heterosexual cisgender youth.
- » Adult support outside of school is slightly lower among youth with disabilities compared to nondisabled youth (89% vs 92%), but adult support at school does not differ by disability status.

**Figure 10. Trends in Protective Factors
2006-2023 Middle School MWAHS**



Additional Findings Related to Adult Support

Associations Between Adult Support, Risk Behaviors, and Mental Health: While most MetroWest youth have adult support in their lives, 6% of middle 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 lacking adult support are more likely to report lifetime EVP use (12% vs. 4%), lifetime alcohol use (23% vs. 9%), depressive symptoms (43% vs. 15%), and seriously considering suicide (39% vs. 12%).

School Connectedness and Engagement

Trends in School Connectedness (2006 to 2023)

- » Over three out of five youth report feeling connected with their school, as indicated by their agreement with statements such as, “I feel like I am part of this school” (64%, similar to 2021 reports) and “I feel close to people at school” (65%, up from 63% in 2021).
- » However, from 2021 to 2023, there were declines in some measures of school connectedness, most notably a decrease in agreement with the statements, “I am happy to be at this school” (from 58% in 2021 to 55% in 2023), “The teachers at this school treat students fairly” (from 62% to 56%) and “I feel safe in my school” (from 73% to 70%). There were similar declines in these indicators among females and males.

Sociodemographic Patterns in School Connectedness (2023)

- » Males consistently report higher levels of school connectedness than females. For example, feeling like part of this school is reported by 70% of males and 59% of females.
- » Several indicators of school connectedness decrease from 7th to 8th grade. For example, feeling happy to be at this school decreases from 58% in 7th grade to 52% in 8th grade.
- » School connectedness is generally higher among Asian, White, and other/multiracial youth and lowest among Black and Hispanic/Latino youth. For example, feeling like part of this school is reported by 71% of Asian youth, 68% of White youth, 65% of other/multiracial youth, 54% of Black youth, and 50% of Hispanic/Latino youth.
- » LGBTQ+ youth also report lower feelings of school connectedness. For example, 49% of LGBTQ+ youth feel close to people at school, compared to 68% of heterosexual cisgender youth.
- » Youth with disabilities are less likely to feel connected to their school than youth without disabilities. For example, only 46% of youth with disabilities feel happy to be at this school, compared to 56% of youth without disabilities.

Additional Findings Related to School Connectedness

Associations Between School Connectedness and Risk Behaviors: Youth with lower levels of school connectedness are more likely to report harmful behaviors, including substance use, fighting, bullying, and mental health problems. For example, youth who don’t feel like a part of their school are more likely to report lifetime EVP use (7% vs. 3%), lifetime alcohol use (14% vs. 7%), lifetime physical fighting at school, (17% vs. 10%), bullying victimization at school in the past 12 months (39% vs. 22%), depressive symptoms in the past 12 months (30% vs. 9%), and seriously considering suicide in their lifetime (24% vs. 8%), compared to youth who do feel like a part of their school.

Peer Support

Trends in Peer Support (2012 to 2023)

- » After declining substantially from 2018 to 2021, peer support among middle school youth shows some improvement. Reports of having a friend to talk to about a personal problem “often” or “very often” increased from 58% in 2021 to 61% in 2023, but is still below 2012-2018 levels (65-67%) (Figure 10). Recent reports increased more among females (from 62% in 2021 to 67% in 2023) than among males (from 54% to 56%).
- » Consistent with the increase in peer support, reports of feeling lonely decreased from a high of 23% in 2021 to 17% in 2023, but are still much higher than when this was first measured (8-10% in 2012-2016). Reports declined more among females (from 31% in 2021 to 23% in 2023) than males (from 15% to 12%).
- » Feelings of being left out or excluded were similar from 2021 to 2023 at 16-17%.

Sociodemographic Patterns in Peer Support (2023)

- » Females are more likely than males to feel like they have a friend to talk to (67% vs. 56%), but they are also twice as likely to feel lonely (23% vs. 12%) or excluded (21% vs. 11%).
- » Reports of peer support indicators do not change substantially from 7th to 8th grade.
- » Having a friend to talk to is highest among White youth (64%), followed by Asian youth (62%), other/multiracial youth (60%), Black youth (56%), and Hispanic/Latino youth (52%). Feeling lonely is highest among Hispanic/Latino youth (23%), followed by Black youth (20%), other/multiracial youth (18%), White youth (16%), and Asian youth (14%).
- » Peer support is lower among LGBTQ+ youth than heterosexual cisgender youth (54% vs. 64%), and feelings of loneliness are twice as high among LGBTQ+ youth (37% vs. 14%).
- » Youth with disabilities are somewhat less likely to have a friend to talk to than youth without disabilities (57% vs. 62%), and more likely to feel lonely (28% vs. 16%).

Additional Findings Related to Peer Support

Associations Between Peer Support and Risk Behaviors: Middle 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 (34% vs. 24%), depressive symptoms (22% vs. 13%), and suicidal thoughts (18% vs. 11%) compared with those who do not report having peer support “often” or “very often.”

Conclusions

The 2023 MWAHS represents the second round of data collection since the COVID-19 pandemic. The 2021 survey, administered soon after students returned to in-person schooling, showed unprecedented decreases in substance use and alarming increases in mental health issues. Two important questions resulting from these findings were: (1) Would the rise in mental health problems continue? and (2) Would decreases in substance use be sustained once students returned to pre-pandemic social settings? The 2023 middle school MWAHS, on the whole, shows several positive findings to indicate that adolescent physical and mental health is improving following the pandemic.

- » **Substance use has remained low among middle school youth.** Use of cigarettes, alcohol, and marijuana have remained at low levels over the past few surveys, down substantially from early years of the MWAHS. Use of nicotine EVPs has also remained steady over the last two surveys, after peaking in 2018. These low levels of substance use are likely related to school and community-based efforts to increase education about the harmful effects of substances, consistent with high levels of perceived risk of substance use for nicotine vaping, alcohol, and marijuana use. Decreased use of nicotine vape products, in addition to being impacted by educational programs and other school-based efforts, such as diversion programs for students caught vaping at school, may also be related to state and local policies that went into effect, such as the 2019 ban on flavored vape products that appeal to youth.
- » **The alarming rise in mental health problems that preceded and continued through the pandemic receded somewhat in 2023. Reports of depressive symptoms, self-injury, and suicidality are lower than when they peaked in 2021, but they remain elevated beyond levels measured in earlier surveys.** It is likely that the recent reductions are an indication of a return to “normalcy” following the pandemic, as youth returned to in-person school, social isolation was reduced, support systems and health services became more accessible, and family and economic stress lessened. The findings may also reflect increased efforts to connect youth who were suffering to needed mental health services, along with a decrease in mental health stigma given the public attention to the “youth mental health crisis”. The 2023 findings are encouraging in light of the increased attention by schools and communities to provide needed mental health literacy education and supports to youth. This includes increasing use of the multi-tiered systems of support (MTSS) framework, which provides universal programming for all students, targeted supports for students at elevated risk (as informed by MWAHS and other sources of data), and intensive supports for students in greatest need. The data may also reflect increased efforts related to mental health screening, wellness programming, and better coordination of school and community mental health programs and services. Nonetheless, reports of depressive symptoms and suicidal thoughts are still higher than they were in the first six MWAHS administrations, emphasizing the need for continued efforts and consideration of potential influences on mental health, such as the role of digital media use and experiences of bullying.
- » **Despite the encouraging decrease in mental health issues, girls remain far more likely to suffer from poor mental wellbeing.** They are also more likely to report bullying victimization, at school and online. Girls, in particular, experience pressures related to negative social comparisons and feelings of exclusion and isolation, which can be exacerbated in online settings, particularly through social media, as emphasized in the *U.S. Surgeon General’s Advisory on Social Media and Youth Mental Health*.⁸ It is therefore critical to continue to address their elevated mental health problems and provide necessary supports tailored to the needs of middle school girls.

- » **School connectedness, which decreased notably in the years preceding the pandemic, remained at these low levels, along with a small increase in school bullying.** These findings may be impacted by a number of factors related to school climate, ranging from: feelings of safety (or lack of safety); quality of peer and adult interactions; perceptions related to diversity, equity, and inclusion; and engagement from students, staff, and parents. Students' use of digital media and smartphones at and outside of school may also affect their engagement in school as well as their relationships with peers. On a positive note, there was an increase in adult support at school following the 2021 survey, indicative of rebuilding of relationships with school adults following the pandemic.
- » **Online behavior continues to be a concern, as time spent on social media increased and many students report negative consequences of digital media use on their academics, physical health, mental health, sleep, and relationships.** While youth report many positive online experiences – like feeling more connected to peers, getting emotional support, and engaging in advocacy – they also express feelings of exclusion, lower self-esteem, negative body image, and harm to relationships. This indicates continued need not only for strategies to minimize the negative consequences of digital media use, but also to promote digital wellness, defined as “a positive state of mental, physical, and social-emotional health pursued through intentional, authentic, and balanced engagement with technology and interactive media.”⁹ This is particularly important for girls, who report more negative experiences online, including cyberbullying, as well as worsening of their mental health related to their digital media use.
- » **The data highlight concerning health disparities based on students' sexual orientation/gender identity, race/ethnicity, and disability status, indicating the need for targeted supports to address elevated levels of risk.** For example, LGBTQ+ youth and youth with disabilities report elevated mental health problems, substance use (cigarette smoking, nicotine vaping, alcohol, and marijuana use), and bullying victimization compared to heterosexual cisgender youth and youth without disabilities. Black and Hispanic/Latino youth report more mental health problems, physical fighting, and obesity than youth in other racial/ethnic groups. In addition, LGBTQ+ youth and Black and Hispanic/Latino youth report lower levels of protective factors, like adult support and school connectedness. These examples of health disparities reflect historical and current inequities in distribution of social, political, economic and other types of resources as well as discrimination that impact the conditions of daily life, ultimately impacting health outcomes as well. Understanding health disparities allows school and communities to provide the necessary supports to youth at elevated risk of poor mental and physical health.

The 9th administration of the MWAHS in 2023 provides critical information to support data-driven decision making and programming across the region. The data helps to identify overall health priorities for communities, while also drawing attention to groups of youth who face disproportionate challenges to their health. By understanding the evolving physical and mental health needs of youth, schools and communities can work together to improve education outcomes and address the most pressing adolescent health issues facing youth today.

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Middle School

Key Indicators

2006–2023 Trends
2023 Patterns by Sex
2023 Patterns by Grade

MetroWest Region Middle School Students (Grades 7-8)

2006-2023 Trends in Key Indicators

MetroWest Adolescent Health Survey

	Year of Survey (%)								
	2006	2008	2010	2012	2014	2016	2018	2021	2023
	(6,821)	(10,546)	(11,597)	(12,224)	(12,191)	(12,307)	(12,107)	(11,975)	(11,352)
SUBSTANCE USE									
Lifetime cigarette smoking	9.5	8.3	5.7	6.2	4.1	2.9	2.9	2.7	2.8
Current cigarette smoking (past 30 days)	3.8	3.6	2.4	2.1	1.4	1.1	0.8	0.6	0.8
Lifetime electronic vapor product use*	—	—	—	—	6.4	5.7	9.9	4.6	4.3
Current electronic vapor product use (past 30 days)*	—	—	—	—	3.5	2.5	5.8	2.2	2.0
Lifetime alcohol use	21.8	20.1	13.2	12.4	11.0	10.2	11.7	11.1	9.8
Current alcohol use (past 30 days)	8.9	8.5	4.9	5.0	4.0	3.7	3.9	3.1	2.7
Binge drinking (past 30 days) [†]	2.4	2.4	1.5	1.4	1.0	1.0	0.9	0.6	0.4
Lifetime marijuana use	4.7	5.1	4.1	4.1	3.1	2.5	3.0	1.9	2.1
Current marijuana use (past 30 days)	2.9	3.2	2.2	2.4	1.8	1.4	1.7	0.8	0.8
Lifetime inhalant use	8.3	7.0	5.2	4.2	3.0	2.6	3.5	3.3	3.7
VIOLENCE									
Physical fighting (lifetime)	44.5	45.2	39.3	35.0	33.4	31.5	32.2	32.6	32.9
Physical fighting on school property (lifetime)	18.7	16.7	12.4	9.8	9.4	9.4	11.1	11.2	12.9
Carried a weapon (lifetime)	17.6	16.2	13.7	15.1	15.2	16.0	13.7	13.0	13.7
Carried a weapon on school property (lifetime)	3.2	2.4	1.4	1.4	1.1	1.0	0.8	0.7	0.6
BULLYING VICTIMIZATION									
Bullying victim (past 12 months)	43.8	49.0	37.7	32.4	28.8	25.1	27.9	28.9	31.0
Bullying victim on school property (past 12 months)	38.7	42.8	31.7	26.7	23.5	20.6	24.5	23.9	28.0
Cyberbullying victim (past 12 months)	15.6	15.9	17.2	16.6	18.6	18.8	17.8	22.6	18.8
MENTAL HEALTH									
Life "very" stressful (past 30 days)	13.2	13.6	12.1	12.5	14.1	15.6	19.8	16.5	14.2
Depressive symptoms (past 12 months)	15.5	15.2	12.8	12.8	15.0	10.4	14.3	19.8	16.7
Self-injury (past 12 months)	7.6	8.4	6.7	7.8	9.0	7.4	9.7	13.2	10.4
Considered suicide (lifetime)	9.8	10.9	9.4	10.5	11.2	10.7	14.2	16.7	13.5
Attempted suicide (lifetime)	2.9	2.9	2.6	3.0	3.2	2.7	3.9	4.8	4.2
PHYSICAL ACTIVITY AND BODY WEIGHT									
Exercised for ≥20 minutes on 3 or more days/week	78.7	79.1	76.9	80.3	80.8	80.7	79.5	77.0	75.2
Overweight or obese [‡]	20.5	19.8	19.5	19.0	19.2	19.7	19.6	20.6	20.1

* Includes vaping nicotine using electronic cigarettes (e-cigarettes) and other electronic vapor products, like vapes, vape pens, e-cigars, e-hookahs, hookah pens, and mods; in 2021, disposable products 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.

‡ 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)

2023 Key Indicator Patterns by Sex

MetroWest Adolescent Health Survey

	Sex (%)		Total (%)
	Female (5,594)	Male (5,747)	(11,352)
SUBSTANCE USE			
Lifetime cigarette smoking	3.1	2.5	2.8
Current cigarette smoking (past 30 days)	0.8	0.8	0.8
Lifetime electronic vapor product use*	5.5	3.2	4.3
Current electronic vapor product use (past 30 days)*	2.8	1.3	2.0
Lifetime alcohol use	9.7	9.8	9.8
Current alcohol use (past 30 days)	2.8	2.7	2.7
Binge drinking (past 30 days) [†]	0.3	0.5	0.4
Lifetime marijuana use	2.4	1.8	2.1
Current marijuana use (past 30 days)	0.9	0.7	0.8
Lifetime inhalant use	3.6	3.7	3.7
VIOLENCE			
Physical fighting (lifetime)	19.6	45.8	32.9
Physical fighting on school property (lifetime)	6.0	19.5	12.9
Carried a weapon (lifetime)	7.7	19.6	13.7
Carried a weapon on school property (lifetime)	0.4	0.9	0.6
BULLYING VICTIMIZATION			
Bullying victim (past 12 months)	34.1	27.9	31.0
Bullying victim on school property (past 12 months)	30.5	25.7	28.0
Cyberbullying victim (past 12 months)	22.2	15.6	18.8
MENTAL HEALTH			
Life "very" stressful (past 30 days)	19.8	8.8	14.2
Depressive symptoms (past 12 months)	22.3	11.2	16.7
Self-injury (past 12 months)	15.4	5.6	10.4
Considered suicide (lifetime)	17.6	9.5	13.5
Attempted suicide (lifetime)	5.6	2.9	4.2
PHYSICAL ACTIVITY AND BODY WEIGHT			
Exercised for ≥20 minutes on 3 or more days/week	70.8	79.7	75.2
Overweight or obese [‡]	17.9	22.1	20.1

* Includes vaping nicotine using electronic cigarettes (e-cigarettes) and other electronic vapor products, like vapes, vape pens, e-cigars, e-hookahs, hookah pens, and mods; in 2021, disposable products 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.

‡ 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)

2023 Key Indicator Patterns by Grade

MetroWest Adolescent Health Survey

	Year of Survey (%)		Total (%)
	7 th	8 th	
	(5,659)	(5,693)	
SUBSTANCE USE			
Lifetime cigarette smoking	2.4	3.2	2.8
Current cigarette smoking (past 30 days)	0.9	0.8	0.8
Lifetime electronic vapor product use*	3.3	5.4	4.3
Current electronic vapor product use (past 30 days)*	1.6	2.5	2.0
Lifetime alcohol use	8.4	11.1	9.8
Current alcohol use (past 30 days)	2.1	3.4	2.7
Binge drinking (past 30 days) [†]	0.3	0.5	0.4
Lifetime marijuana use	1.3	2.9	2.1
Current marijuana use (past 30 days)	0.5	1.0	0.8
Lifetime inhalant use	3.6	3.8	3.7
VIOLENCE			
Physical fighting (lifetime)	33.0	32.7	32.9
Physical fighting on school property (lifetime)	13.3	12.4	12.9
Carried a weapon (lifetime)	13.0	14.4	13.7
Carried a weapon on school property (lifetime)	0.6	0.6	0.6
BULLYING VICTIMIZATION			
Bullying victim (past 12 months)	33.1	28.9	31.0
Bullying victim on school property (past 12 months)	29.6	26.5	28.0
Cyberbullying victim (past 12 months)	18.8	18.8	18.8
MENTAL HEALTH			
Life "very" stressful (past 30 days)	13.3	15.2	14.2
Depressive symptoms (past 12 months)	16.0	17.4	16.7
Self-injury (past 12 months)	10.0	10.8	10.4
Considered suicide (lifetime)	13.1	13.9	13.5
Attempted suicide (lifetime)	4.1	4.3	4.2
PHYSICAL ACTIVITY AND BODY WEIGHT			
Exercised for ≥20 minutes on 3 or more days/week	75.7	74.8	75.2
Overweight or obese [‡]	18.1	22.0	20.1

* Includes vaping nicotine using electronic cigarettes (e-cigarettes) and other electronic vapor products, like vapes, vape pens, e-cigars, e-hookahs, hookah pens, and mods; in 2021, disposable products 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.

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

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