

## SPRING 2019 STUDENT SURVEY RESULT HIGHLIGHTS

The **Health and Risk Behaviors of Massachusetts Youth, 2019** report summarizes findings from the 2019 administration of the [Massachusetts Youth Risk Behavior Survey](#) and [Massachusetts Youth Health Survey](#). It is a product of the long-standing collaboration between the Massachusetts Department of Elementary and Secondary Education (DESE) and Department of Public Health (DPH) to collect reliable and accurate data about the health-related behaviors of adolescents across the Commonwealth. This data highlight summary illustrates the shared commitment of DESE and DPH to the health and well-being of Massachusetts youth by identifying emerging areas of concern and strengthening existing efforts to address longstanding problems based on data reported by youth.

The **Massachusetts Youth Risk Behavior Survey (MYRBS)** and **Massachusetts Youth Health Survey (MYHS)** are the most comprehensive and reliable tools available to monitor and evaluate progress across the Commonwealth of Massachusetts related to preventing or reducing behaviors that endanger the health and academic attainment of youth. These surveys are conducted in odd numbered years and are designed to monitor health indicators, behaviors, and risk factors contributing to the leading causes of illness, injury, mortality, and social and academic problems among adolescents, including:

- **Protective factors**
- **Behaviors that contribute to unintentional injuries and violence**
- **Sexual behaviors related to unintended pregnancy and sexually transmitted infections (STIs), including HIV**
- **Alcohol, marijuana, and other drug use**
- **Tobacco use and electronic vaping device use**
- **Unhealthy dietary behaviors**
- **Inadequate physical activity**

Data collected through the MYRBS and MYHS enable DESE and DPH to provide estimates for a variety of health indicators, behaviors, and risk factors for Massachusetts youth overall and grouped by certain characteristics (gender, grade, and race-ethnicity). These analyses can highlight inequities in health within and across population sub-groups. In interpreting these results, it is critical to recognize that the social, economic, behavioral, and physical factors experienced by youth have a profound impact on their health.<sup>1</sup>

### SPRING 2019 PARTICIPANTS

MYRBS ► **51** HIGH SCHOOLS  
RANDOMLY SELECTED

MYHS ► **50** HIGH SCHOOLS  
RANDOMLY SELECTED

**63** MIDDLE SCHOOLS  
RANDOMLY SELECTED

**6,768** STUDENT PARTICIPANTS  
GRADES 6-12  
VOLUNTARILY & ANONYMOUSLY

YRBS and YHS data are collected from a scientifically drawn sample of all Massachusetts middle school and high school students. The data collected are analyzed to evaluate nonresponse bias. Data are weighted to create estimates for all students in Massachusetts. Weighting is a mathematical procedure that makes data representative of the population from which it was drawn.

### IN THIS SUMMARY

- 2019 Key Findings
- Results Summary
- Demographic characteristics of students reported in the MYRBS and MYHS (Fig. 1)
- Appendix of detailed data tables on key health indicators, behaviors, and risk factors in the full report, which include overall prevalence estimates, as well as gender, grade, and race/ethnicity subgroup estimates.

<sup>1</sup> More information about these Social Determinants of Health can be found on the [DPH Population Health Information Tool \(PHIT\)](#) website.

# 2019 KEY FINDINGS



## MANY YOUTH REPORT THE PRESENCE OF PROTECTIVE FACTORS ASSOCIATED WITH LOWER RATES OF RISK BEHAVIORS.

Factors such as academic goals and successes, school-connectedness, and a close relationship with a parent or caregiver have long been recognized as potential protective factors because they promote resiliency in youth.

- Most middle school (86%) and high school (77%) students report earning grades of mostly A's and B's. This has been a consistent finding with each survey administration.
- Most high school students (73%) are planning on completing a post-high school program such as vocational training program, military service, or college.
- Many high school students have adults they can talk to, and this has been a consistent finding since 2009.
  - Seventy-four percent (74%) of high school students report having a teacher in school they could talk to about a problem.
  - Eighty-one percent (81%) of high school students report having a parent or adult family member they could talk to about things important to them.



## MANY YOUTH RISK BEHAVIORS AND HEALTH-RELATED FACTORS SHOW SIGNIFICANT LONG-TERM IMPROVEMENTS OVER THE LAST TEN YEARS.

Since 2009, long-term reductions have been observed in cigarette use, pregnancy, and violence rates. Despite the long-term downward trends, the current data show no significant reductions since 2017. Continued monitoring will show whether these behaviors will continue stay level or will again improve (or decline).

- Cigarette smoking rates remain much lower than a decade ago. Five percent (5%) of high school students report smoking at least one cigarette in the past month (compared to 16% in 2009).
- Among middle school students, 5% report ever smoking cigarettes (compared to 15% in 2009).
- Fewer than 4% of high school students have ever been pregnant or gotten someone pregnant (compared to 6% in 2009).
- In 2019, 18% of students were involved in a physical fight (down from 29% in 2009).



## SOME YOUTH RISK BEHAVIORS AND HEALTH-RELATED FACTORS HAVE WORSENERD SIGNIFICANTLY FROM 2017 TO 2019.

A few indicators, specifically those related to nutrition, electronic vaping use and mental health, have worsened in the past two years.

- The use of electronic vaping devices has increased.
  - Among high school students, 51% have tried them at least once (up from 41% in 2017), and 8% are using them daily (compared to just 2% in 2017).
  - Among middle school students, 15% have tried them at least once (up from 10% in 2017).
- Overall levels of marijuana use have not changed but some associated risk behaviors and perceptions have, as have parental perceptions.
  - Driving under the influence of marijuana increased (20% in 2019 compared to 15% in 2017).
  - Using marijuana on school property increased (9% in 2019 compared to 5% in 2017).
  - Perception of parental views of marijuana changed. Among high school students, 67% thought their parents would disapprove of their marijuana use (down from 71% in 2017).
- The number of youth feeling sad or hopeless continues to rise.
  - In high schools, 34% of students reported feeling so sad or hopeless that they had stopped doing some of their usual activities (compared to 27% in 2017).
  - In middle schools, 24% of students reported feeling so sad or hopeless that they had stopped doing some of their usual activities (compared to 19% in 2017).
- Some nutrition habits have worsened.
  - Fewer high school youth (27%) are drinking milk daily compared to 2017 (32%).
  - Fewer high school students (31%) are eating breakfast every day (a decrease from 38% in 2017).



## SOME IMPORTANT RISK AREAS REMAIN STATISTICALLY UNCHANGED SINCE 2017.

A few important indicators, notably those related to marijuana, school safety and nutrition, physical activity, and weight, have seen small fluctuations but no significant change.

- There has been no significant change in the percentage of students using marijuana among middle school and high school students.
  - Seven percent (7%) of middle school students have tried it at least once, and 3% have used it in the past thirty days.
  - Forty-two percent (42%) of high school students have tried it at least once, and 26% have used it in the past thirty days.
- There has been no significant change in the percentage of middle school and high school students who report bullying.
  - Thirty-five percent (35%) of middle school students report having been bullied.
  - Fourteen percent (14%) of high school students report having been bullied electronically and 16% were bullied on school property.
- Among high school students, 6% report skipping school because they felt unsafe at school or on their way to school.
- Forty-three percent (43%) of high school students and 48% of middle school students were physically active for 60 minutes on five or more days per week.
- One-quarter (25%) of middle school students and 29% of high school students were overweight or obese (based on self-reported height and weight).



## AS INFLUENCES ON ADOLESCENT HEALTH AND SOCIAL WELLBEING CHANGE, IT IS CRUCIAL TO KEEP ABREAST OF NEW AND CHANGING BEHAVIORAL PATTERNS AMONG YOUTH.

With the addition of the following new questions to the MYRBS and MYHS, data regarding risk and protective factors as well as the impact of adverse experiences and traumas on these factors may emerge that can help to inform educational and public health initiatives targeting adolescents.

- Many youth are engaged with their community, which is considered a protective factor.
  - Sixty-eight percent (68%) of middle school and 61% of high school students took part in organized activities.
  - Thirty-seven percent (37%) of high school and 36% of middle school students reported doing volunteer work, community service or helping people outside of their home without getting paid.
- Students are spending time with family, also thought of as a protective factor.
  - Seventy-nine percent (79%) of high school and 86% of middle school students sat down to dinner with family one or more times in past week.
  - Forty-nine percent (49%) of high school students have had discussions with their parents or other adults in their family, about their parents'/family members' expectations of them (to do or not to do) when it comes to sex.
- A new question was added in 2019 to increase our knowledge over time of adolescent suicide ideation and behaviors. In this first year of collecting data on this information, 24% of high school students who attempted suicide had asked for help from someone such as a doctor, counselor, or hot line prior to the attempt.
- Food insecurity is considered an adverse childhood event that has a negative impact on youth. Twenty-eight percent (28%) of high school and 25% of middle school students went to bed hungry at least once in previous week because there was not enough food at home.
- Not feeling safe or witnessing violence are also considered adverse childhood events that negatively impact youth. While most youth (90% of high school and 91% of middle school students) feel their neighborhood was safe from crime, nineteen percent (19%) of high school and 14% of middle school students have witnessed someone being physically harmed in their neighborhood.

# RESULTS SUMMARY

Most youth in Massachusetts are engaging in healthy behaviors. Continued long-term improvements seen in youth health behaviors attest to the success of efforts by schools, community programs, health care workers, and families to foster the healthy development of young people in Massachusetts.

Despite clear successes, there are behaviors that did not improve or have worsened, and new behaviors we are only beginning to understand. Promoting adolescent health and wellbeing and the role it plays in a student's academic performance and life-long well-being must remain a priority. The goal of these surveys is to provide data that help sustain positive momentum and strengthen existing efforts to address longstanding and emerging problems.

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## TOPIC-SPECIFIC REPORTS

Topic-specific reports are pending and will provide more comprehensive findings on key health and safety indicators including prevalence estimates, trend data indicating significant changes over the past five survey administrations (i.e., over the past ten years), and comparative data among student groups at disproportionate risk. The topic-specific reports will also highlight prevention, education, and policy initiatives undertaken by DESE, DPH, and other state and community agencies to address issues affecting our youth.

Additionally (where applicable), health-related policies and practices implemented across the Commonwealth's public middle and high schools will also be spotlighted utilizing information gathered from the 2018 School Health Profiles (Profiles). The Profiles are conducted every two years and assesses the status of school health and physical education policies and programs at the middle/junior high and senior high school levels. Districts and communities are encouraged to use the data and resources presented for program planning and improvement.

## FURTHER INFORMATION AND ACCESSING SURVEY DATA

**Massachusetts and National Youth Risk Behavior Survey:** For further information and resources on the Youth Risk Behavior Survey, please visit the Centers for Disease Control and Prevention website: <https://www.cdc.gov/healthyyouth/data/yrbs/index.htm>

For questions and inquiries specific to the MYRBS, please contact  
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Telephone: (781) 338-6307      Email: [OSFS.SchoolBasedSurveys@mass.gov](mailto:OSFS.SchoolBasedSurveys@mass.gov)  
Website: <http://www.doe.mass.edu/sfs/yrbs/>

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## To access MYRBS and National YRBS data:

The CDC has created two web based YRBS surveillance data exploration systems, Youth Online and YRBS Explorer. Data from high school and middle school surveys are included (Massachusetts does not conduct a YRBS in middle schools). CDC does not include results of any questions that were added or modified for the state survey.

Youth Online allows individuals to analyze national, state, and local Youth Risk Behavior Surveillance System (YRBSS) data from all years YRBS has been administered. Individuals can filter and sort based on race/ethnicity, sex, grade, or site; create customized tables and graphs; and perform statistical tests by site and health topic. Youth Online can be found here: <https://nccd.cdc.gov/youthonline/App/Default.aspx>

The YRBS Explorer provides visualization of national, state, and local YRBSS data. It is designed to allow users to view data in a simplified way and interfaces with Youth Online. YRBS Explorer can be accessed here: <http://yrbs-explorer.services.cdc.gov/>

For individual researchers and organizations who wish to access the raw MYRBS data, please read and complete the data use agreement form found on our MYRBS webpage: <http://www.doe.mass.edu/sfs/yrbs/>

## Massachusetts Youth Health Survey:

For further information about the MYHS, please contact:

Dr. Candace Nelson, Acting Director, Office of Data Management and Outcomes Assessment, DPH.

Tel: (857) 274-2641 Email: [candace.nelson@mass.gov](mailto:candace.nelson@mass.gov)

Website: <https://www.mass.gov/orgs/department-of-public-health>

For researchers interested in the raw MYHS data, please visit DPH's "[Apply for access to confidential records data](#)" webpage.



Figure 1: Demographic Characteristics of the 2019 MYHS and MYRBS <sup>a,b</sup>

	Middle School	High School	
	MYHS (N=2,536)	MYHS (N=2,014)	MYRBS (N= 2,218)
<b>Sex</b>			
Female	1240 (51.0%)	1034 (50.8%)	1073 (50.6%)
Male	1188 (49.0%)	958 (49.2%)	1124 (49.4%)
Missing	108	22	21
<b>Grade</b>			
6th grade	939 (33.7%)	--	--
7th grade	900 (33.4%)	--	--
8th grade	672 (32.8%)	--	--
9th grade	--	577 (26.7%)	819 (26.1%)
10th grade	--	490 (24.7%)	594 (25.2%)
11th grade	--	580 (24.6%)	444 (24.2%)
12th grade	--	354 (23.9%)	332 (24.1%)
Ungraded or Other	1	2	11
Missing	24	11	18
<b>Race/Ethnicity <sup>a</sup></b>			
White, non-Hispanic	1166 (59.6%)	1256 (62.0%)	1152 (61.7%)
Black, non-Hispanic	157 (9.1%)	131 (8.9%)	309 (9.0%)
Hispanic or Latino	658 (20.5%)	357 (19.1%)	427 (19.2%)
Asian, non-Hispanic	159 (4.5%)	117 (5.1%)	144 (6.6%)
Other or Multiple Ethnicity, non-Hispanic (NH)	212 (6.3%)	104 (4.8%)	120 (3.4%)
Missing	184	49	66

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

(b) N = number of students with a valid response for the question. Percent(%) = weighted(\*) percent of all students with a valid response for the question.\*(To correct for slight variations between the Massachusetts Middle/High school populations and the MYRBS/ MYHS samples, cases were statistically weighted. Weighting is a mathematical procedure that makes data representative of the population from which it was drawn.)