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Background

REPORT FORMAT

The Regional Youth Health Survey (RYHS) is a tailored version of the national Centers for Disease Control and Prevention Youth Risk Behavior Surveillance System (YRBSS) to meet the needs of our local school districts. The questionnaire gathers information on important issues facing youth in the towns of Shrewsbury, Millbury, Grafton and the city of Worcester, which partially make up the Central Massachusetts Regional Public Health Alliance (CMRPHA) district. Topics include substance use, violence and safety, dietary behavior, and sexual health. This is the fifth iteration of the RYHS in Shrewsbury High (2013, 2015, 2017, 2019 and 2021).

METHODS

The RYHS was made possible through partnerships with the Shrewsbury Public Schools, the Worcester Division of Public Health, the UMass Prevention Research Center and the Daniel's Foundation. The questionnaire was administered electronically via REDCap, a secure web application widely used in research studies. Teachers were given instructions on how to administer the survey and were responsible for answering any questions in the classroom.

VALIDITY

Participation in the survey is voluntary, which research have found increases the likelihood that students respond truthfully. In efforts to further increase validity students were asked how honest they were in taking the survey, at the end of the survey; **97%** of students reported that they were either 'completely', 'very', or 'pretty honest'; while **3%** responded that they were not very or at all honest.

Further steps to increase validity include screening individual questionnaires for patterns of frivolous and inconsistent responses and omitting them from the analyses.

TRENDS

It is possible to look at trend comparisons to ascertain whether behaviors among Shrewsbury youth have improved, worsened, or remained the same, over the years. However, some questions may become incomparable to prior years' creating a break in trend analyses whenever the questionnaire is modified.

ACCOUNTABILITY

It is important to note that the RYHS is primarily designed to assess the risky behaviors of youth, and does not highlight many of the positive aspects of their life. Also very important to note is that, although the surveys are administered in the schools, it should not be interpreted that the schools should be held solely accountable for the behaviors of youth. "Issues such as those addressed in the survey are not school problems; they are community problems that require the attention of all community members and organizations."¹ In addition, the majority of questions on the RYHS questionnaire ask about risky behaviors done either in youths' lifetime or during the past 30 days before taking the survey. **Unless the question specifically states "on school property" it should not be interpreted that these behaviors were conducted on school property.**

¹ Summary of Results from the 2016-2017 Cambridge Middle Grades Health Survey.

Demographic Characteristics

SEX, GENDER, GRADE, AND RACE/ETHNICITY

A total of 1,657 students completed the 2021 RYHS in Shrewsbury High School. There were more female respondents as compared to male respondents (54% vs. 46%, respectively). Two percent (2%) of students identify as transgender. There was a fair distribution of grade level participants (Figures 2). The racial/ethnic makeup of student participants have slightly changed since 2019. A little less than half (48%) of students identified as white, 28% identified as Asian/Asian American, 7% identified as Hispanic/Latino/a, 3% as Arab or Middle Eastern, 3 % identified as African American/Black, and approximately 9% identified as Multiracial (Figure 3).

Figure 1. Age Distribution of Shrewsbury High Participants, 2021

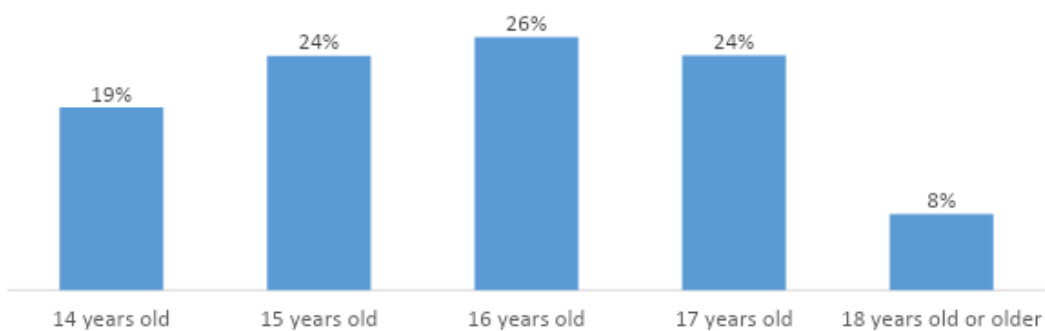


Figure 2. Grade Level Distribution of Shrewsbury High Participants, 2021

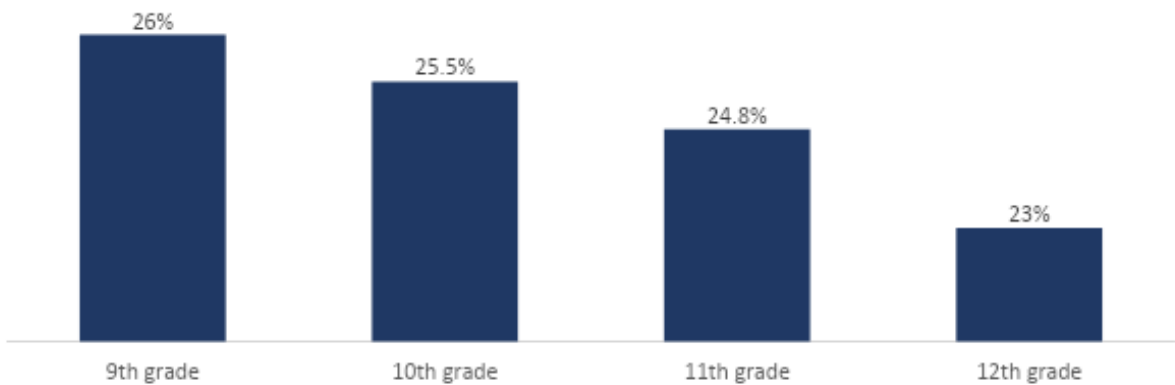
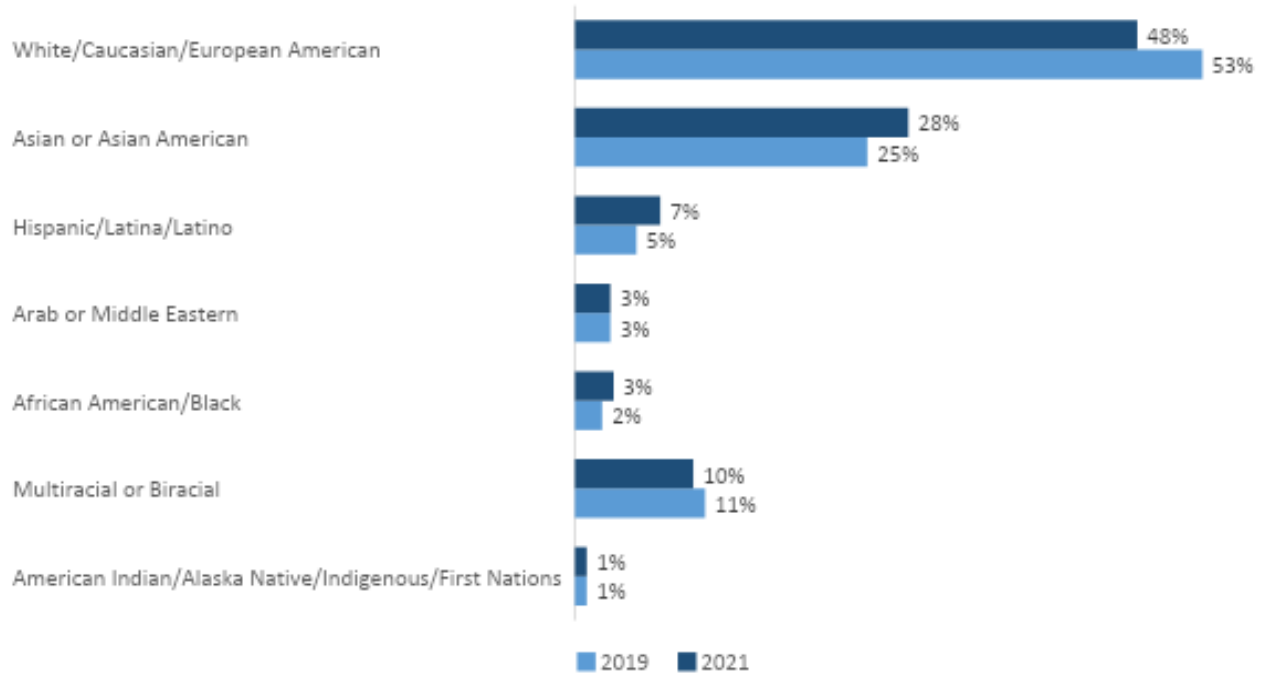


Figure 3. Race and Ethnicity among Shrewsbury High Participants, 2021

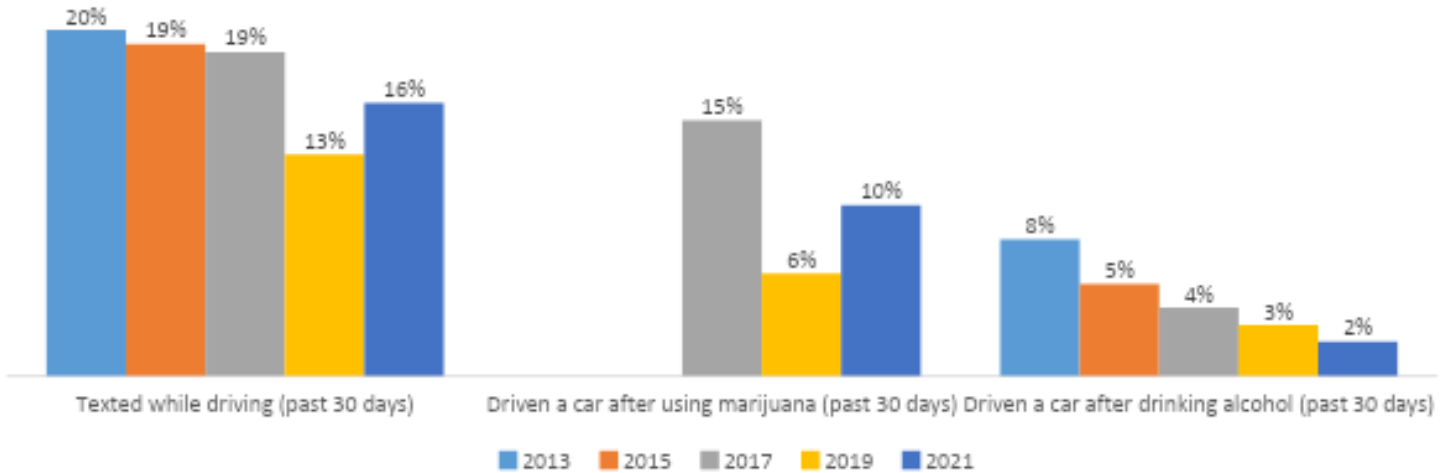


Behaviors that Contribute to Unintentional Injuries

SAFETY

- Among those students who drove a car during 30 days before the survey:
 - 16% had texted or e-mailed while driving a car or other vehicle at least one day, 5% reported having done this six or more times.
 - 4% reported driving a car when they had been using marijuana
 - 2% reported driving a car when they had been drinking alcohol
- 6% reported that they rode in a car driven by someone who was drinking alcohol at least once during 30 days before taking the survey
- 10% reported that they rode in a car driven by someone who was using marijuana at least once during 30 days before taking the survey
- 13% responded that they had a firearm in the home; 10% of students were not sure
- 26% responded that they did not go to school because they felt unsafe at school or on their way to or from school, in the past 30 days; only 1% reported this response in 2019.

Figure 4. Unsafe Driving Practices among Shrewsbury High Participants

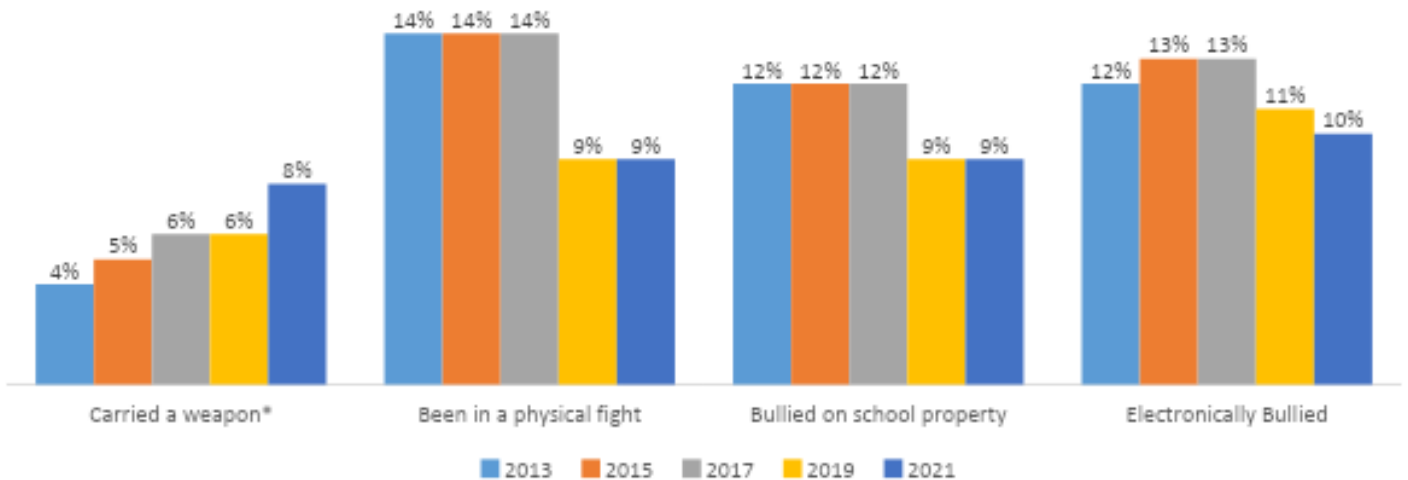


Behaviors that Contribute to Violence

WEAPONS, PHYSICAL FIGHT, AND BULLYING

- During the 30 days before taking the survey:
 - 2% carried a knife to protect themselves and >1% carried a gun
- During the 12 months before the survey:
 - 6% reported they had been threatened or injured with a weapon **on school property** one or more times
 - 9% had been in a physical fight one or more times
 - 2% had been in a physical fight **on school property** one or more times
 - 4% reported they had been physically hurt by someone in their family
 - 3% reported witnessing violence in their family
 - >1% had been physically hurt on purpose by someone they were dating
 - 3% had been forced to do sexual things that they did not want to do such as kissing, touching or sexual intercourse
 - 9% had been bullied **on school property**
 - 10% had been electronically bullied
- 6% had been electronically bullied **on school property**
- 5% had seen someone get physically attacked, beaten, stabbed or shot in their neighborhood.

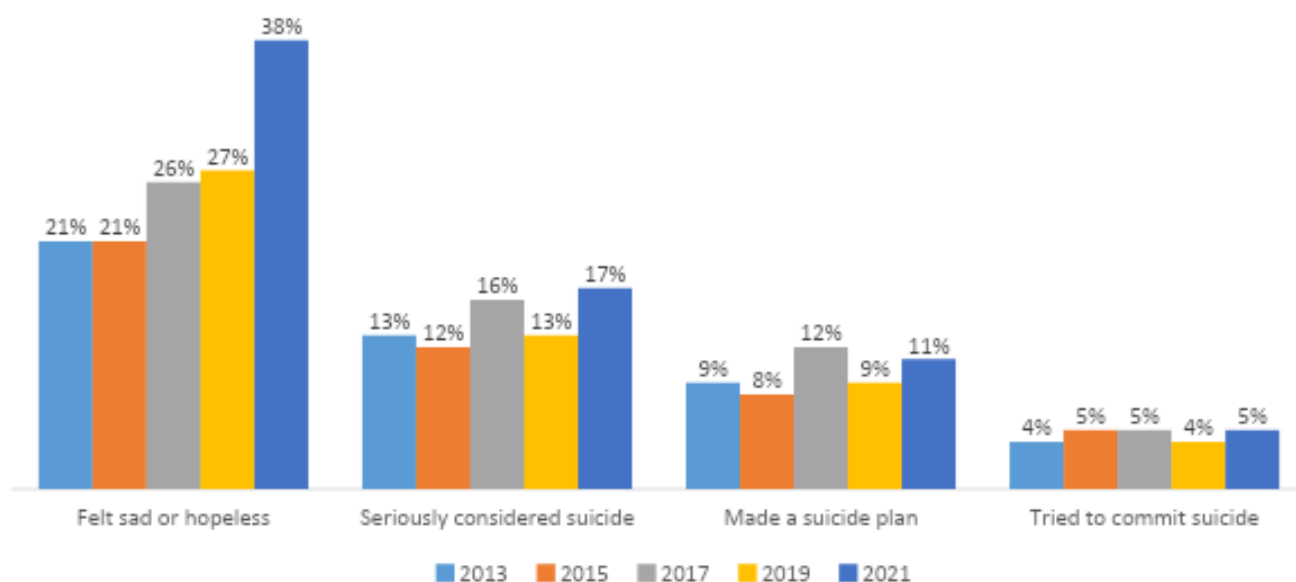
Figure 5. Weapons, Physical Fights and Bullying among Shrewsbury High Participants



Depression and Suicidal Ideation

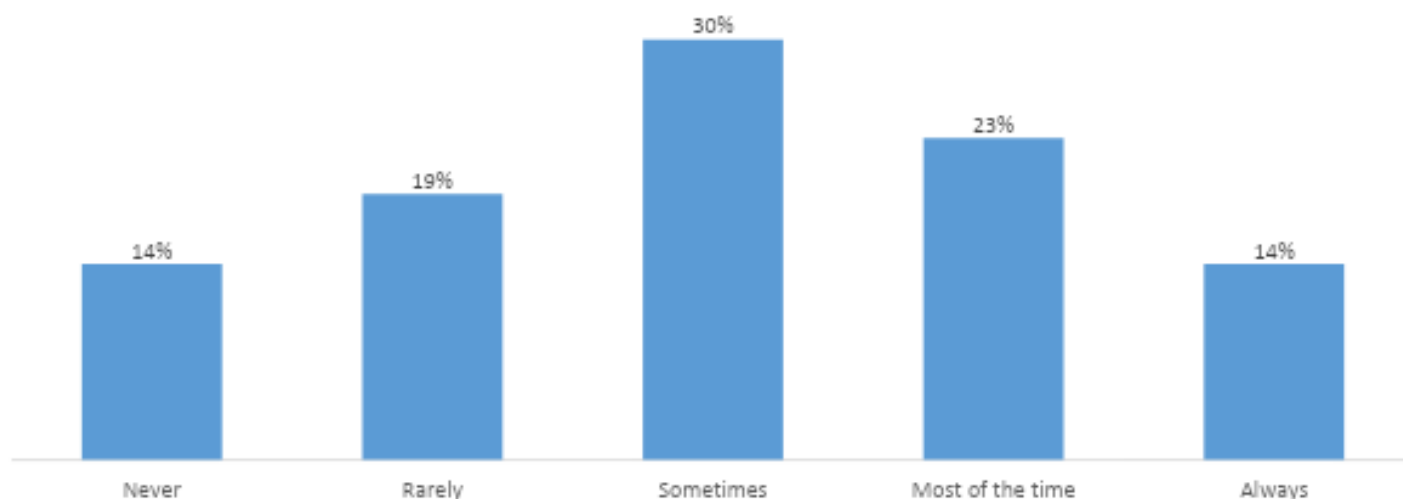
- During the 12 months before the survey:
 - **38%** felt so sad or hopeless almost every day for 2 or more weeks in a row that they stopped doing some usual activities;
 - 22% females vs 50% males;
 - 32% and 35% for Asian and White students, respectively as compared with 46% African American, 46% Multi-racial, 55% Hispanic and, 53% 'Other'
 - **17%** had seriously considered attempting suicide;
 - 12% females vs 21% males;
 - 15% white students as compared to $\geq 18\%$ students of color
 - **11%** had made a plan about how they would attempt suicide;
 - 8% females vs 14% males;
 - 9% white students as compared to 11% Asian, 12% African-American, 17% Hispanic, 16% Multi-racial and 13% 'Other'
 - **5%** had actually attempted suicide one or more times
 - **2%** had made a suicide attempt resulting in an injury, poisoning, or overdose that had to be treated by a doctor or nurse
 - **15%** hurt or injured themselves without wanting to die;
 - 12% Asian, 14% White, 18% African-American, 20% Hispanic and 22% Multi-racial

Figure 6. Suicidal Ideations among Shrewsbury High Participants



New questions around the impact on youth mental health were added to the CDC's national survey. Students were asked how often their mental health was not good during the COVID-19 pandemic as illustrated in Figure 7.

Figure 7. During the COVID-19 Pandemic how often was your mental health not good?



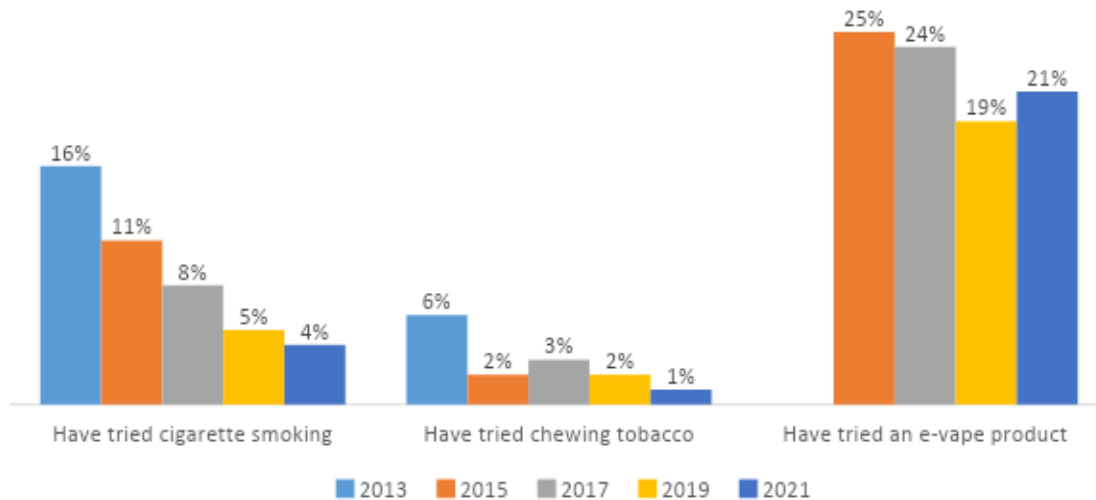
Tobacco Use

“EVER” OR “LIFETIME” USE OF TOBACCO PRODUCTS

- 4% had tried a regular cigarette
- 3% had tried a non-flavored cigar (cigarillo, Swisher Sweet, Black and Mild, etc.)
- 3% had tried a flavored cigar
- 9% had tried a non-flavored e-cigarette

- 13% had tried a flavored e-cigarette
- 5% had used an e-cigarette on school property
- 1% had tried chewing tobacco
- 78% had never tried any of the above tobacco products

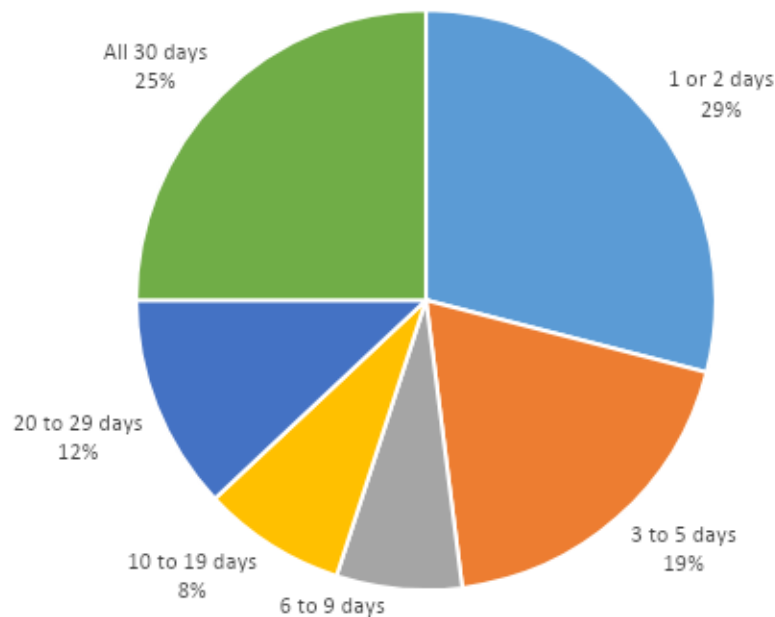
Figure 8. Lifetime/Ever Use of Nicotine Product Use among Shrewsbury High Participants



CURRENT AND FREQUENT USE OF ELECTRONIC VAPOR PRODUCTS

Figure 9 illustrates the frequency of use among those participants (11%) who stated they used an electronic vapor product in the 30 days before taking the survey.

Figure 9. Frequency of Use among Current Users, Shrewsbury High



REASONS FOR USING NICOTINE PRODUCTS

- Main reasons for trying among those students who reported they ever used a nicotine product:
 - <1% stated because it was cheap or easy to buy from a store
 - 2% saw an advertisement for it and it looked cool
 - 6% was attracted to the flavor
 - 38% stated for some other reason not listed in the survey
 - 53% saw others (such as classmate, family, friends, etc.) using it and was curious
- 44% first heard about it in the media, such as television, movies, the internet, radio, billboards; 27% first heard about it from friends
- For those who have tried nicotine products:
 - 47% received them from a friend
 - 11% bought them from a store such a convenience store or gas station
 - 9% gave someone money to buy them

PERCEPTIONS AROUND NICOTINE PRODUCTS

- 15% believe there is no/slight risk in harming oneself if they use e-vape products
- 85% believe there is moderate/great risk in harming oneself if they use e-vape products
- 97% believe their parents feel it would be 'very wrong/wrong' for them to use e-vape products regularly
- 3% believe their parents feel it would be 'a little bit wrong/not at all wrong' for them to use e-vape products regularly
- 68% believe their friends feel it would be 'very wrong/wrong' for them to use e-vape products regularly
- 32% believe their friends feel it would be 'a little bit wrong/not at all wrong' for them to use e-vape products regularly

Alcohol Use

EVER USE AND CURRENT USE OF ALCOHOL

- 35% of students had at least one drink of alcohol on at least 1 day during their life
- Among those who had ever had a drink of alcohol, 20% had their first drink of alcohol, other than a few sips, **before age 13 years**
- 19% of students had at least one drink of alcohol on at least 1 day during the 30 days before taking the survey (i.e. current alcohol use)
- Among those who reported they had a drink during the past 30 days of taking the survey, 51% stated someone gave it to them

PERCEPTIONS AROUND ALCOHOL USE

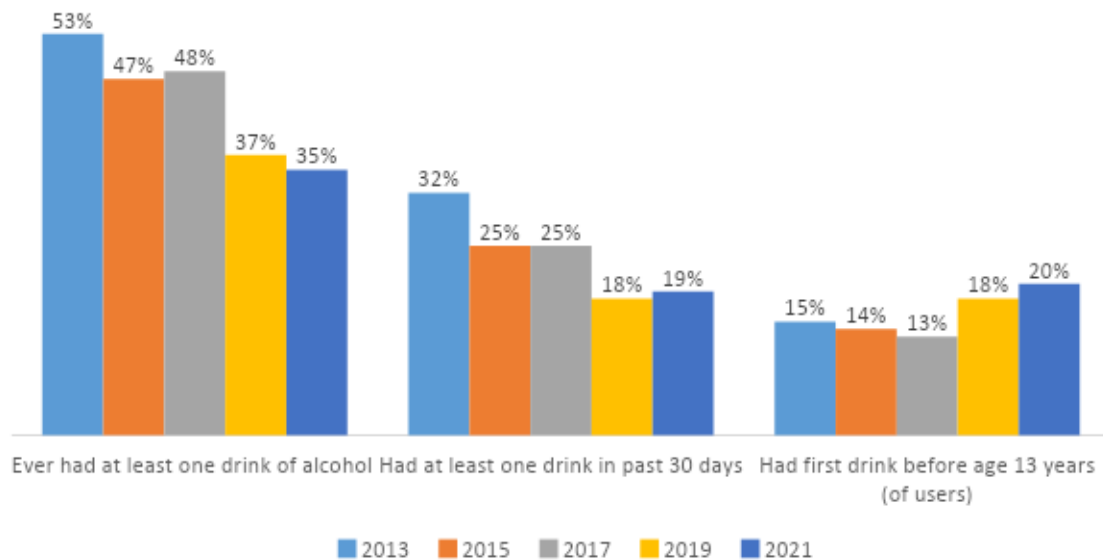
- 22% believe there is no/slight risk in harming oneself if they drink alcohol regularly
- 78% believe there is moderate/great risk in harming oneself if they drink alcohol regularly
- 90% believe their parents feel it would be 'very wrong/wrong' for them to drink alcohol regularly

- 10% believe their parents feel it would be 'a little bit wrong/not at all wrong' for them to drink alcohol regularly
- 70% believe their friends feel it would be 'very wrong/wrong' for them to drink alcohol regularly
- 30% believe their friends feel it would be 'a little bit wrong/not at all wrong' for them to drink alcohol regularly

CURRENT BINGE DRINKING

- 9% of students had four or more drinks of alcohol in a row (if they were female) or five or more drinks of alcohol in a row (if they were male) within a couple of hours on at least 1 day during the 30 days before taking the survey

Figure 10. Alcohol Use Among Shrewsbury High Participants

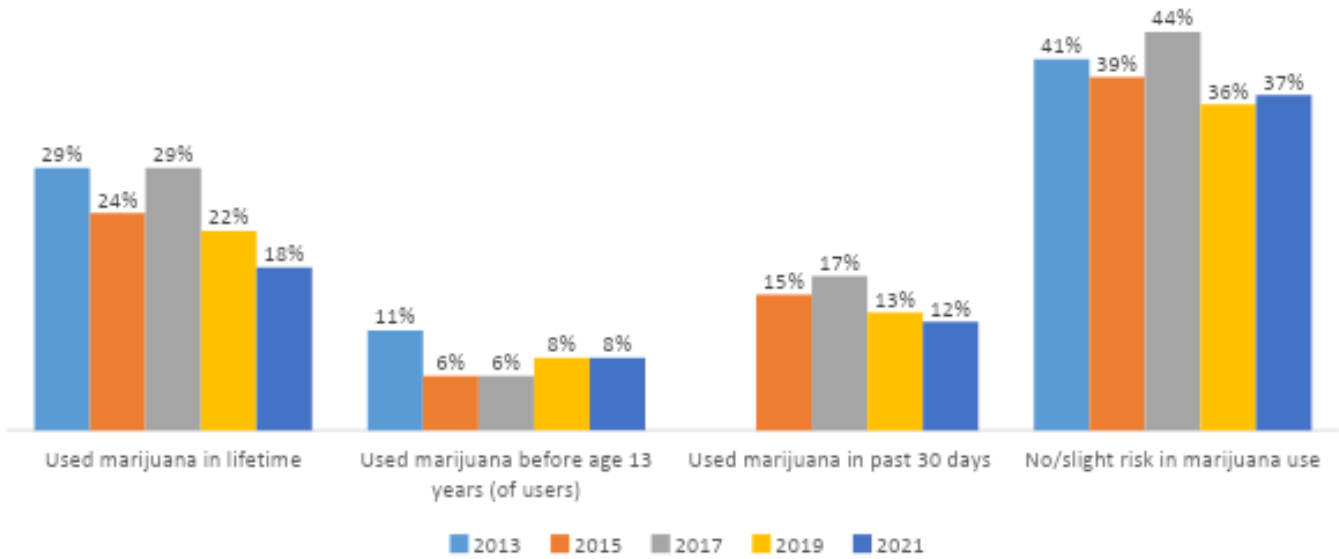


Marijuana Use

EVER AND CURRENT USE OF MARIJUANA

- 18% of students had used marijuana one or more times during their life
- Among those students who had ever used marijuana in their life:
 - 21% reported ever using marijuana 3 to 9 times
 - 22% reported ever using marijuana 100 or more times
 - 25% reported ever using marijuana 1 or 2 times
 - 8% had tried marijuana for the first time before age 13 years
- 12% had used marijuana one or more times during the past 30 days before the survey
- Among those who had used marijuana during the 30 days before the survey, top 3 usage were:
 - 42% used it 1 or 2 times
 - 25% used it 3 to 9 times
 - 16% used it 40 or more times
- 4% reported ever using synthetic marijuana one or more times in their life

Figure 11. Marijuana Use among Shrewsbury High Participants



METHOD OF USING MARIJUANA

- 12% smoked it in a joint, bong, or pipe
- 11% ate it in food such as brownies, cakes, cookies, or candy
- 6% smoked it in a blunt wrap
- 2% vaporized it in a portable device such as a vaping pen or e-hookah
- 2% vaporized it in a tabletop device
- 2% drank it in tea, cola, alcohol, or other drinks
- 2% used it some other way not listed

PERCEPTIONS AROUND MARIJUANA USE

- 37% believe there is no/slight risk in harming oneself if they use marijuana
- 63% believe there is moderate/great risk in harming oneself if they use marijuana
- 63% believe their friends feel it would be 'very wrong/wrong' for them to smoke marijuana
- 37% believe their friends feel it would be 'a little bit wrong/not at all wrong' for them to smoke marijuana
- 90% believe their parents feel it would be 'very wrong/wrong' for them to smoke marijuana
- 10% believe their parents feel it would be 'a little bit wrong/not at all wrong' for them to smoke marijuana

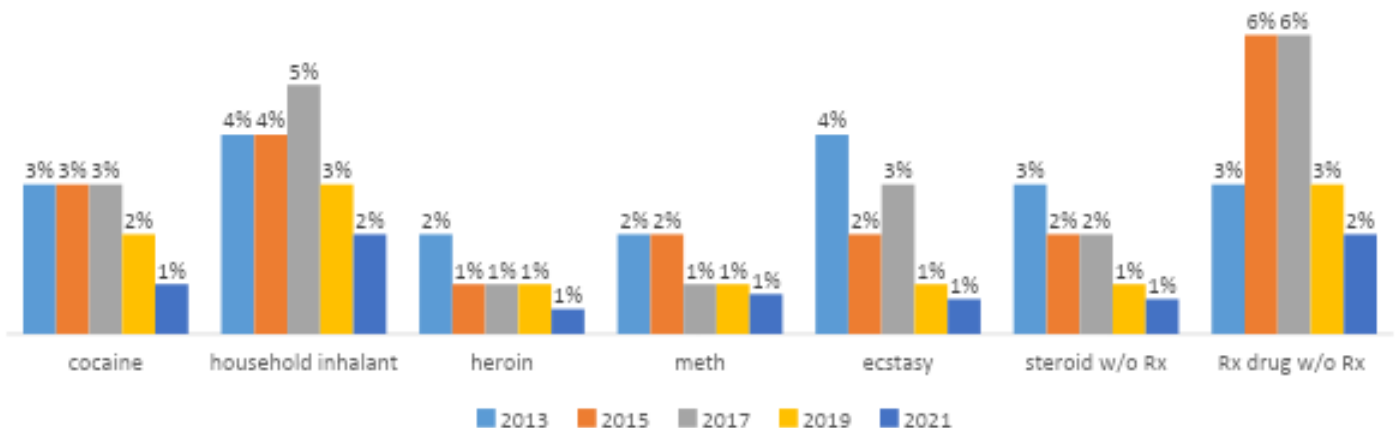
Other Drug Use

EVER AND CURRENT USE OF OTHER DRUGS

- 2% had **sniffed glue or inhaled the contents** of aerosol spray cans, paints or sprays to get high one or more times during their life

- 0.8% in past 30 days
- 1% had used any form of **cocaine**, including powder, crack, or freebase one or more times during their life
 - 0.6% in past 30 days
- 1% had used **heroin** one or more times during their life
 - 0.5% in past 30 days
- 1% had used **ecstasy** one or more times during their life
 - 0.4% in past 30 days
- 1% had taken **steroid pills or shots** without a doctor's prescription one or more times during their life
 - 0.4% in past 30 days
- 2% had taken a **prescription pain medicine** (counting drugs such as codeine, Vicodin, OxyContin, Hydrocodone, and Percocet) without a doctor's prescription or differently than how a doctor told them to use it one or more times during their life
 - 1% in past 30 days
- 1% had used **methamphetamines** (also called "speed," "crystal," "crank," or "ice") one or more times during their life
- 2% had used **hallucinogenic drugs**, such as LSD, acid, PCP, angel dust, mescaline or mushrooms one or more times during their life
 - 0.8% in past 30 days

Figure 12. Lifetime Substance Use among Shrewsbury High Participants



Body-Image & Dietary Behaviors

BODY IMAGE

The majority (59%) of students described their weight as being 'about the right weight'. Eighteen percent (18%) described their weight as 'very/slightly underweight and more females (38%) than males (8%) stated they wanted to gain weight.

Twenty-three percent (23%) described themselves as ‘slightly/very overweight’ and 37% stated they were trying to lose weight; 41% were trying to either stay the same or were not trying to do anything about their weight.

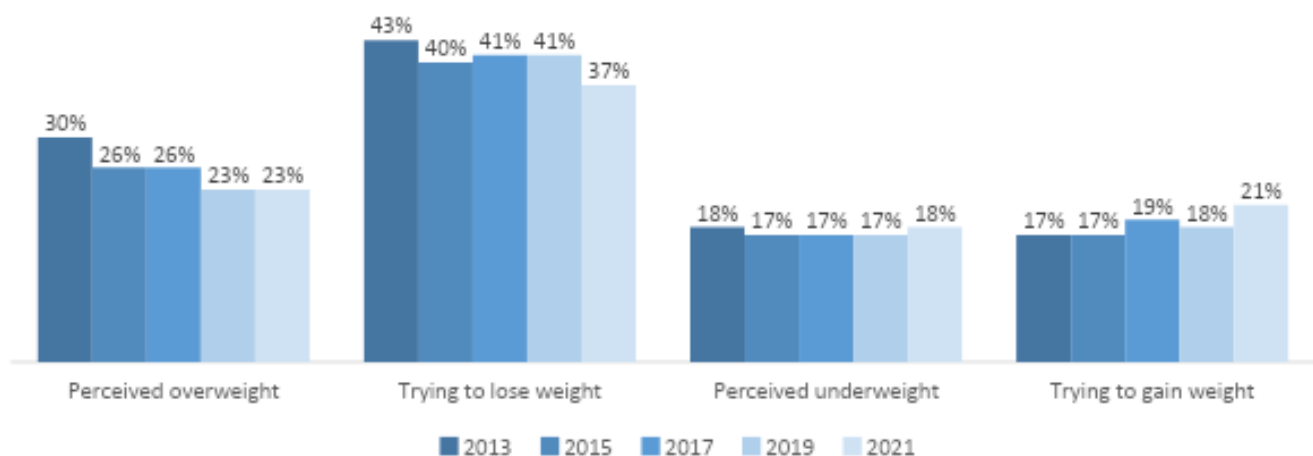
Thirteen percent (13%) reported going 24 hours or more without eating to lose weight and another 2% reported taking diet pills, powder, or liquids without a doctor’s advice to lose weight or keep from gaining weight during the 30 days before the survey. About 4% had vomit or took laxatives to lose or keep from gaining weight during the 30 days before the survey.

DIETARY BEHAVIORS

When asked about the past 7 days before taking the survey:

- 14% of students had not eaten breakfast
- 38% of students had eaten breakfast all 7 days
- 72% had drunk a sugar sweetened beverage such as a soda, sports drink, sweetened lemonade or iced tea, sweetened coffee or lattes
- 22% had drunk an energy or caffeinated drink such as red bull or jolt
- 6% **had not** eaten any fruit (not including fruit juices)
- 5% **had not** eaten vegetables (not including French fries, hash browns and potato chips)
- 2% reported being hungry but did not eat because there wasn’t enough money for food in their house

Figure 13. Perception of Body Weight among Shrewsbury High Participants

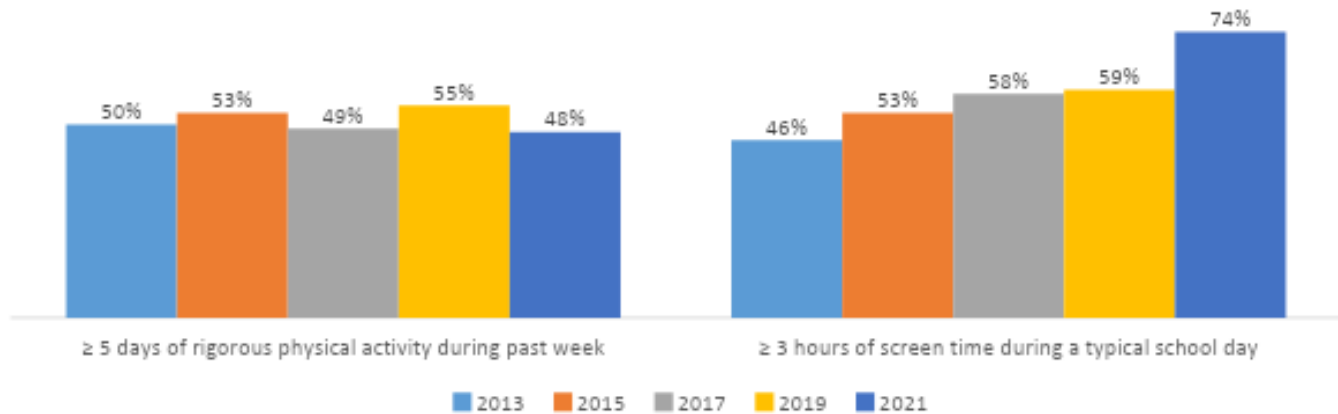


PHYSICAL ACTIVITY

- 9% of students had not been physically active for a total of at least 60 minutes on at least 1 day during the 7 days before the survey
- 48% of students had been physically active for a total of at least 60 minutes per day on 5 or more days during the 7 days before the survey
- 22% of students had been physically active for a total of at least 60 minutes per day on all 7 days during the 7 days before the survey

- 74% of students had spent 3 or more hours on “screen time” on something that is not school work, such as watching TV, playing video games, internet use, mobile apps such as Twitter and Instagram and mobile games on cell phones, tablets and iPads

Figure 14. Physical Activity and Screen Time among Shrewsbury High Participants



Sexual Health

SEX EDUCATION

- 72% reported being taught about AIDS or HIV infection in school
- 77% reported being taught about Sexual Health in school
- 79% reported being taught about healthy relationships in school
- 63% reported being taught how to use a condom to prevent pregnancy or sexually transmitted infections
- 68% of students had talked about ways to prevent HIV infection, other sexually transmitted infection or pregnancy with their parents or other adults in their family, in school, or in their community

SEXUAL ACTIVITY

About 76% of students identify as heterosexual or straight, 2% as gay or lesbian and 11% as bisexual; 3% stated that they are not sure. In terms of gender identity, 2% stated that they were transgendered.

- 16% of students have had sexual intercourse and among those, 73% had their first intercourse at 15 years of age or older
- 20% had either given or received oral sex in their lifetime and among those 31% had oral sex before the age 15 years
- 4% consumed alcohol or used drugs before they had sexual intercourse the last time

Among those students who reported ever having sexual intercourse with an opposite sex partner:

- 57% used condoms
- 22% used birth control pills
- 5% used withdrawal or some other method
- 5% used an IUD such as Mirena or implant such as Implanon
- 1% used a shot such as Depo-Provera or birth control ring

- 8% did not use any method of birth control during last sexual intercourse
- 2% was not sure if they used any method of birth control

SEXTING AND PORNOGRAPHY

- 36% of students reported that they have received a nude or sexually suggestive picture or video of someone else
- 29% stated that they have been asked to send a nude or sexually suggestive picture or video;
- 15% reported that they have sent a nude or sexually suggestive picture or video to someone
- 40% of students have viewed pornography online or on other formats
- Among those who had ever viewed pornography:
 - 28% had viewed 'at least once'
 - 14% viewed 'at least once a day'
 - 37% viewed 'at least once a week'
 - 20% viewed 'at least one a month'
- 79% believe their parents feel it would be 'very wrong/wrong' for them to view pornography
- 21% believe their parents feel it would be 'a little bit wrong/not at all wrong' for them to view pornography
- 44% believe their friends feel it would be 'very wrong/wrong' for them to view pornography
- 56% believe their friends feel it would be 'a little bit wrong/not at all wrong' for them to view pornography

Other Health-Related Topics

- On average 20% of students reported getting eight (8) or more hours of sleep on an average school night.
- Most (58%) students reported getting 6 to 7 hours of sleep. The vast majority (93%) of students had visited their doctor for a routine visit during the past 12 months of the survey
- Approximately 80% of students stated they could talk to at least one of their parent/guardian or another adult family member about things that are important to them
- The vast majority (98%) of students reported they currently sleep at home with their parents or guardians.

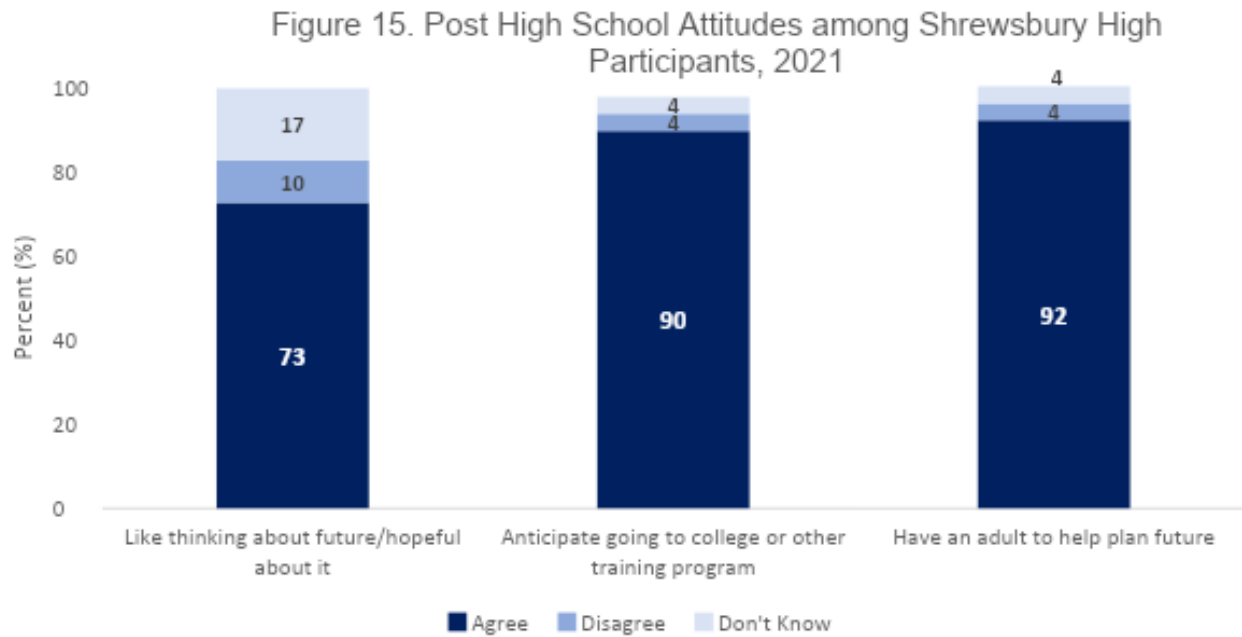
While the majority of students report not experience being treated unfairly in a negative way, been prevented from doing something, or made to feel bad about themselves during the 30 days prior to the survey:

- 12% reported because of their body image or physical appearance;
- 6% stated because of their race or ethnicity
- 5% because of their sexual orientation

Life Adjustment and Future Plans

POST HIGH SCHOOL ATTITUDES

The vast majority (73%) of Shrewsbury high youth is hopeful about their future and anticipate going to college or other training institution (90%). In addition, 92% have an adult present in their life to help plan their future (Figure 14).



TOP ISSUES AMONG YOUTH

As illustrated in Figure 15, stress remains the top reported issue among Shrewsbury high youth (52%) followed by anxiety (21%). Distantly following are peer pressure and peer relationships (7%). The issue of bullying slightly decreased from 5% in 2017 to 3% in 2019 and 2% in 2021, the issue of health decreased (5% in 2017, 8% in 2019 and 6% in 2021).

Figure 16. Top Reported Issues among Shrewsbury High Youth, 2021

