

WORCESTER DIVISION OF PUBLIC HEALTH

Oak Middle School







## Table of Contents

Demographic Characteristics of Students	2
Themes in Oak Middle School	4
Violence	4
Emotional Health	
Tobacco Use	6
Electronic Vapor Products	8
Alcohol Use	9
Marijuana and other Drugs	9
Weight and Eating Habits	10
Physical Activity	11
Other Health Behaviors	
Sleep Habits and Homelessness	13
Sexual Health	13
Life Adjustment and Future Plans	15
Survey Response Honesty	16

This report summarizes the findings from the Regional Youth Health Survey (RYHS) conducted in Oak Middle School, located in Worcester County, in the 2016-2017 school year. Overall, **925** individuals in grades 7-8 participated in the survey.

### **Demographic Characteristics of Students**

Nine hundred and twenty-five (925) middle school students participated in the Youth Health Survey, which accounts for 92% of all students. There were more male participants (52%) than female participants (48%). The majority of student participants were 13 years old and in the  $7^{th}$  grade (51%) (Figures 1-2). The majority of student participants (88%) come from households where at least one parent has completed a college degree, Master's degree, or doctoral degree.

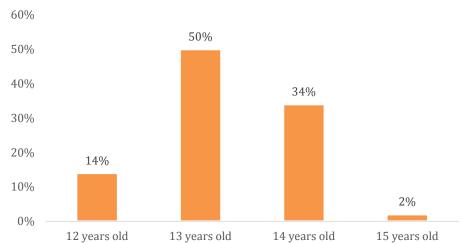
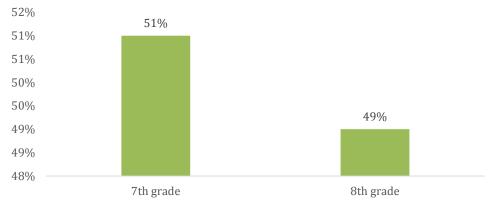


Figure 1. Age Distribution of Oak Middle School YHS Participants, 2017

Figure 2. Grade Level Distribution of Oak Middle School YHS Participants, 2017



Approximately 57% of students identified as White, Caucasian, or European American Those students who identified as Asian or Asian American made up 23% of the participants while students who identified as Hispanic, Latina, or Latino accounted for 8%. Six percent (6%) of students chose multiple races. A marginal amount of students identified as follows:

African-American or Black (3%), American Indian/Alaska Native/Indigenous or First Nations (2%), Arab/Middle Eastern (3%), and Native Hawaiian/Pacific Islander (1%).

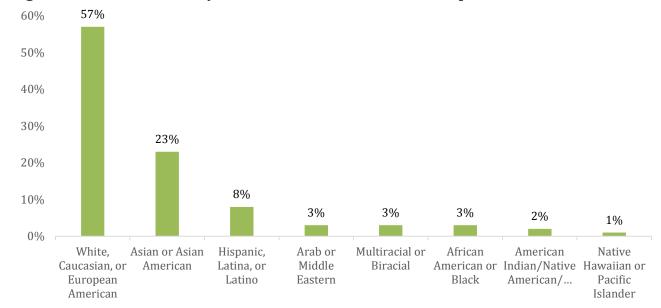


Figure 3. Race and Ethnicity of Oak Middle School YHS Participants, 2017

Figure 4 reflects the primary language participants speak at home. The majority (78%) of students speak English at home. About 4% of students speak Hindi/Tamil, 4% Portuguese, 3% Chinese, 2% Spanish, 1% Arabic, and approximately 8% speak another language.

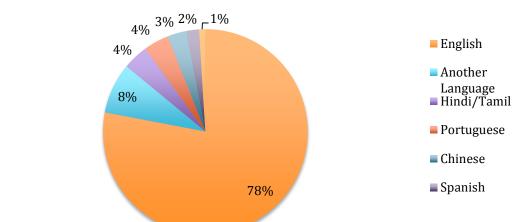
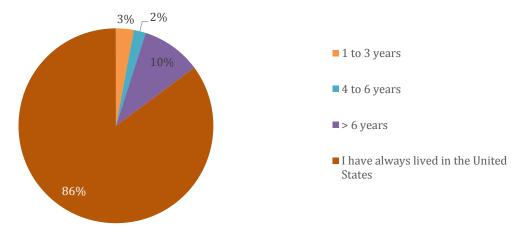


Figure 4. Primary Language Spoken at Home among Oak Middle School Participants, 2017

The majority of participants (86%) have spent their entire lives in the United States (Figure 5). Ten percent (10%) of students have lived in the United States for more than six years, two percent (2%) for four to six years, and three percent (3%) of students have been living in the United States for one to three years.

Figure 5. Length of Time Spent in the United States among Oak Middle School Participants, 2017



#### Themes in Oak Middle School

Results from the RYHS reflect the status of risk and protective factors among Oak Middle School students. The survey assessed different major domains of health behaviors in this population. In order to better illustrate the results, data has been divided into 10 main categories.

#### Violence

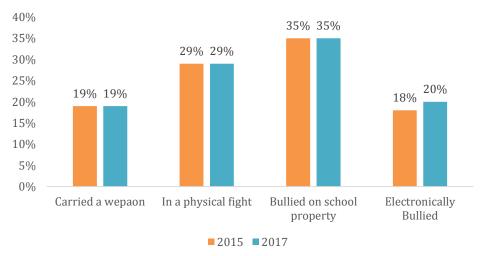
The RYHS includes questions about 5 main factors that contribute to violence. These factors include carrying a weapon (such as a knife, gun, club), social pressure to join a gang within the last 12 months, being engaged in a physical fight, witnessing or experiencing family violence in the last 12 months, and bullying. Violence-related behaviors are a significant public health concern. Nationwide, homicide remains the third leading cause of death among youth ages 13-19 years (5.1 deaths per 100,000).¹ Physical fighting is linked to serious injury-related health outcomes, and firearms are specifically responsible for 65% of all violent deaths on school property from 1994-2006.¹

As displayed in Figure 6, the percent of participants who reported ever being electronically bullied increased from 18% to 20%. Electronic bullying includes being bullied through texting, Instagram, Facebook, or other social media. The other three determinants of violence measured include carrying a weapon (19%), being in a physical fight (29%), and ever being bullied on school property (35%) remained constant. Bullying is an important marker for health due to its connections to depression, suicidal ideation, self-injury, suicide attempts, increased likelihood of repeated common health problems, school absenteeism, psychological distress, and feeling unsafe at school.¹ Further, electronic bullying is specifically linked to lower self-esteem, social anxiety, and discipline problems in school.¹

https://www.cdc.gov/healthyyouth/data/yrbs/questionnaires.htm

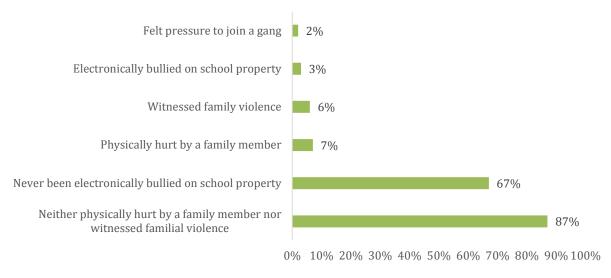
<sup>&</sup>lt;sup>1</sup> Center for Disease Control and Prevention. (2017). Youth risk behavior survey (YRBS) 2017 standard questionnaire item rationale. Retrieved from

Figure 6. Determinants of Violence among Oak Middle School Participants, 2015 and 2017



The 2017 YHS also assessed new factors including experiencing social pressure to join a gang, bullying on school property, and the prevalence of familial violence (Figure 7). Only 2% of participants reported feeling pressure to join a gang in the past 12 months. In the past 12 months, 7% participants reported being physically hurt by someone in their family, 6% witnessed violence in their family, and the majority (87%) reported experiencing neither scenario. More than half of student respondents have never been electronically bullied (67%), while a small number of participants have been electronically bullied on school property (3%).

Figure 7. Determinants of Violence among Oak Middle School Participants, 2017



#### **Emotional Health**

When asked about their emotional health over the past year, 22% of students responded that they have felt so sad or hopeless that they stopped doing things as usual. Notably, all measures assessing serious suicidal ideation, making a suicide plan, or attempting suicide increased from 2015 to 2017 (Figure 8) (chart not shown). Further, 15% of students have

seriously thought about killing themselves and 11% have made a plan about how they would kill themselves. An additional 3% of students (N=29) have tried to kill themselves. It is important to note that a previous suicide attempt is a high-risk factor for a suicide fatality. Self-injury without the intention to die is also a predictor of the emotional health status of youth and suicide risks. During the past 12 months, fourteen percent (14%) of students have tried to hurt or injure themselves on purpose without wanting to die (chart not shown).

In the context of mental health education, 15% of students reported not being taught about mental health in school, 58% of students were taught, and 27% of students were not sure. This compares to the 2015 responses as follows: 16% of students reported not being taught about mental health in school, 54% of students were taught, and 30% of students were not sure.

25% 22% 20% 18% 15% 15% 13% 11% 10% 7% 5% 3% 2% 0% Feeling sad or Seriously considered Planned a suicide Attempted suicide hopeless suicide **2015 2017** 

Figure 8. Emotional Health and Suicidal-Related Behaviors among Oak Middle School Participants, 2015 and 2017

#### Tobacco Use

The RYHS measured tobacco use among the middle school participants. The questions assess students' exposure to nicotine products (Figure 9), reasons students tried nicotine products (Figure 10), and views on e-cigarettes. Across the country, 3,800 youth under 18 years old begin smoking every day. In addition to the negative health consequences, cigarette smokers are more likely to engage in other risky health behaviors including drinking alcohol, using marijuana and cocaine, sexual behaviors, physical fighting, carrying a weapon, and attempting suicide.

<sup>&</sup>lt;sup>2</sup> Center for Disease Control and Prevention. (2017). Youth risk behavior survey (YRBS) 2017 standard questionnaire item rationale. Retrieved from <a href="https://www.cdc.gov/healthyyouth/data/yrbs/questionnaires.htm">https://www.cdc.gov/healthyyouth/data/yrbs/questionnaires.htm</a>

The majority (90%) of student participants have never tried any nicotine products. Ecigarettes both non-flavored (3%) and flavored (4%) were more popular than regular cigarettes (1%) and flavored cigars (1%). Students most commonly tried nicotine products after seeing others using it (2%) and reasons not covered in the survey (3%). Very few students (1%) reported they would use nicotine products if they were not available in flavors.

Figure 9. Nicotine Product Exposure among Oak Middle School Participants, 2017

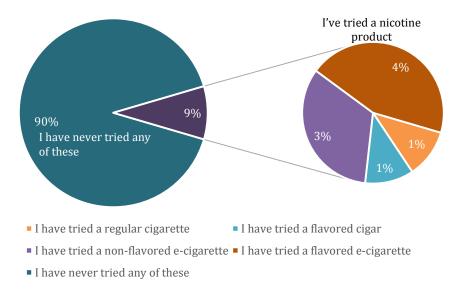
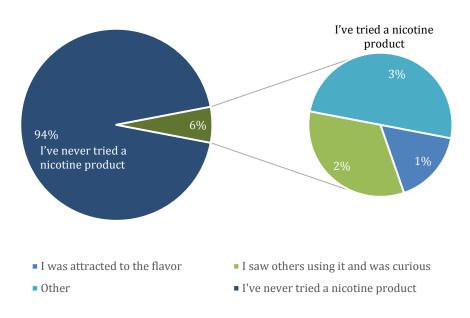


Figure 10. Specified Reasons Reported among Oak Middle School Participants for Trying Nicotine Products, 2017



#### **Electronic Vapor Products**

Another section of the survey was related to e-cigarette and electronic vapor products. The questions covered how participants first heard about e-cigarettes, how much they believe e-cigarettes cause harm to people, and how they obtained e-cigarettes. The U.S. Food and Drug Administration finalized a rule in 2016 to regulate electronic vapor products by preventing sales to minors, prohibiting few samples and vending machine sales, and mandating warning labels on packaging.<sup>3</sup>

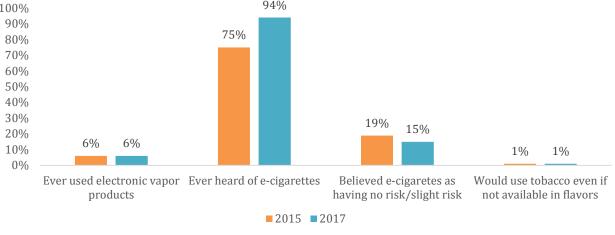
The majority of students have never tried an e-cigarette (94%), which is a negligible decrease from the 95% of students in the 2015 YHS. Most students (41%) first hear about e-cigarettes from their health teacher, 26% report hearing about them through the media, 13% from friends, 6% from store ads, and 8% from other sources not identified in the survey. Six percent (6%) of student participants have never heard of e-cigarettes.

While more students indicated they have heard about e-cigarettes as compared to the 2015 YHS (94% vs. 75%, respectively), fewer students believe that using e-cigarettes regularly poses no harm or is only slightly harmful to their health (19% vs. 15%, respectively). However, most students (85%) do believe people who use e-cigarettes regularly have moderate to great risk of harming themselves. This year 1% of students claimed they would still use nicotine products in general if they were not available in flavors, which is consistent with the 1% of students in the 2015 YHS who indicated they would specifically use e-cigarettes if they were not available in flavors (Figure 11).

The most popular way students access e-cigarettes is through friends (3%), followed by family members (1%), giving another individual money to buy them (1%), and other (1%) (chart not shown).

Figure 11. Use and Attitude towards Electronic Vapor Products among Oak Middle School Participants, 2015 and 2017

100%
90%
94%



<sup>&</sup>lt;sup>3</sup> Center for Disease Control and Prevention. (2017). Youth risk behavior survey (YRBS) 2017 standard questionnaire item rationale. Retrieved from <a href="https://www.cdc.gov/healthyyouth/data/yrbs/questionnaires.htm">https://www.cdc.gov/healthyyouth/data/yrbs/questionnaires.htm</a>

#### Alcohol Use

This section of the RYHS assessed drinking among youth. Individuals who begin drinking alcohol before age 15 are six times more likely to develop an alcohol dependence or abuse than those who begin drinking at or after age 21.4 Survey questions covered direct alcohol exposure including whether the participants ever drank alcohol, other than a few sips and the age they first drank alcohol (other than a few sips). As illustrated in Figure 12, the two measures for reported alcohol use, each increased and fell by 2%, respectively. The majority (95%) of students believe their parents would feel it would be wrong or very wrong for them to drink beer, wine, or hard liquor regularly. This figure remains unchanged from the 2015 YHS.

Among student participants, most (61%) have never ridden in a car by someone who had been drinking alcohol; while 18% of respondents were not sure. This question focuses on student exposure to drivers under the influence of alcohol which has decreased nationwide from 1991-2015 (40%-20%).<sup>5</sup> Interestingly, more students (21%) in 2017 report having ever ridden in a car driven by someone who had been drinking alcohol, as compared to fourteen percent (14%) in the 2015 YHS.

12% 11%

10% 9%

8%

6%

4%

2%

0%

Ever had a drink of alcohol

2015 2017

Figure 12. Reported Alcohol Use among Oak Middle School Participants, 2015 and 2017

#### Marijuana and other Drugs

This section assessed drug use including, past marijuana use, the age at trying marijuana for the first time, use of cocaine (including powder, crack, or freebase), sniffing glue/spray cans/paints to get high, taking steroid pills/shot without a doctor's prescription, ever taking a prescription drug without a doctor's prescription, use of opioids, and use of synthetic marijuana. These measures are of interest because youth drug use is connected to heavy alcohol and tobacco use, violence and delinquency, and suicide.<sup>6</sup>

 $<sup>^4</sup>$  Center for Disease Control and Prevention. (2017). Youth risk behavior survey (YRBS) 2017 standard questionnaire item rationale. Retrieved from

https://www.cdc.gov/healthyyouth/data/yrbs/questionnaires.htm

<sup>&</sup>lt;sup>5</sup> Center for Disease Control and Prevention. (2017). Youth risk behavior survey (YRBS) 2017 standard questionnaire item rationale. Retrieved from

https://www.cdc.gov/healthyyouth/data/yrbs/questionnaires.htm

As highlighted in Figure 13, the rate at which Oak middle school youth reported lifetime marijuana use doubled from 2015 to 2017 (1.7% vs. 3.9%, respectively). Students who have used marijuana most commonly smoke it in a joint, bong, or pipe (2%), followed by 1% of students smoking it in a blunt wrap. Notably, more (17% vs. 10%) students believe that marijuana has little or no harm to their health. The majority of students (85%) report their friends would feel it was either very wrong or wrong if they were to smoke marijuana.

An increased percentage of students reported taking a prescription pain medicine without a doctor's prescription or differently than how a doctor prescribed (2.4% vs. 1.3%). Ninety-six percent (96%) of students report never having used opioids to get high, consistent with the 2015 YHS. This report finds 1% of students have used opioids to get high and 3% of students are not sure. Minor fluctuations in drug use between 2015 and 2017 are reported in Figure 13.

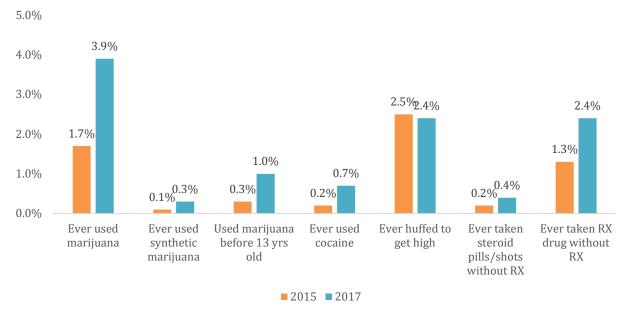


Figure 13. Reported Drug Use among Oak Middle School Participants, 2015 and 2017

#### Weight and Eating Habits

This section of the RYHS assessed the weight and dietary habits of the youth. The questions consisted of the individuals' perception of their weight, how they want to change their weight, the number of days they have breakfast during a typical week, the number of soda drinks consumed per week, and if they have ever experienced hunger during the past week due to lack of money to buy food. In monitoring self-reported descriptions of weight, the survey aims to understand the spread of childhood obesity and potentially harmful weight concerns that can lead to restrictive eating behaviors. Childhood obesity is associated with an increased likelihood of adult obesity, as well as range of negative psychological and social health consequences. Additional questions focused on breakfast are included

<sup>&</sup>lt;sup>6</sup> Center for Disease Control and Prevention. (2017). Youth risk behavior survey (YRBS) 2017 standard questionnaire item rationale. Retrieved from <a href="https://www.cdc.gov/healthyyouth/data/yrbs/questionnaires.htm">https://www.cdc.gov/healthyyouth/data/yrbs/questionnaires.htm</a>

because eating breakfast is linked to weight loss and weight loss maintenance, improved nutrient intake, better cognitive function, academic performance, school attendance rates, psychosocial function, and mood.<sup>6</sup> In comparison, soda consumption is associated with dental decay, and increased risk of being overweight, and the development of metabolic syndrome and type 2 diabetes.<sup>7</sup>

Figure 14 displays the results related to weight and dietary habits compared to the 2015 YHS. In 2015, 34% of students reported that they are trying to lose weight as compared to 41% in 2017. Further, the proportion of Oak middle school students who perceive themselves as overweight increased from 23% to 28%. More students are eating breakfast at least 3 times a week (23% vs. 18%) and fewer students are drinking more than 3 soda beverages in the past week (10% vs. 18%). The percent of students who reported experiencing hunger due to financial issues decreased slightly (4% to 3%). The percent of students who ate dinner together with their family at least four times per week marginally decreased (71% to 70%).

45% 41% 40% 34% 35% 28% 30% 23% 23% 25% 18% 18% 20% 15% 10% 10% 4% 3% 5% 0% Perceived overweight Trying to lose weight Ate breakfast <3 More than 3 soda Hunger experience due during the past week drinks in the past week to monetary issues **2**015 **2**017

Figure 14. Perception of Weight and Dietary Habits among Oak Middle School Participants, 2015 and 2017

#### **Physical Activity**

This section of the RYHS assessed the physical activity level of the participants through three major questions. These questions included the number of days that the participants were physically active for at least 60 minutes during the past week, the average screen time per day, and the average number of days that the participants walk or ride to school per week. The survey monitors regular participation in physical activity due to its reported connections to healthy bones and muscles; maintaining body weight and reducing body fat; reducing feels of depression and anxiety; promoting psychological well-being; and

decreasing the risk of high blood pressure, heart disease, diabetes, obesity, some types of cancer, and premature death over time.<sup>7</sup>

Fewer students reported spending at least 5 days doing 60 minutes of physical activity in the past week (59% vs. 68%); more students spent greater than 3 hours with screen time per school day (51% vs. 39%); and slightly more students walked or biked to school (9% vs. 8%). Note that the decreased rate of physical activity could be affected by the time at which the survey was administered. In 2015 the survey was administered in the spring, whereas the survey was administered in the fall in 2017.

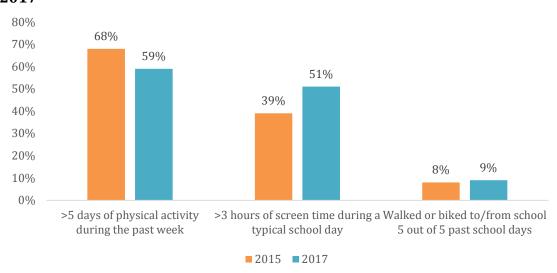


Figure 15. Reported Physical Activity among Oak Middle School Participants, 2015 and 2017

#### Other Health Behaviors

This section of the RYHS consists of questions related to general health behaviors of the individuals. These areas include visiting a primary care physician for a routine check-up during the past year, sleeping habits, their grades at school during the past 12 months, health education topics at school, sexual health, and future ambitions. Academic success is a good indicator for the overall well-being of youth. Consequently, poor grades are linked to health-risk behaviors including early sexual initiation, violence, and physical inactivity.<sup>8</sup>

Approximately 87% of students described their grades as mostly 4's or mostly 3's in the last twelve months. This figure contrasts with the 88% of students who described their grades as mostly 4's or mostly 3's in the 2015 YHS. Fewer participants (4% vs. 6%) report not visiting a primary care physician in the past year (Figure 16).

 $<sup>^{7}</sup>$  Center for Disease Control and Prevention. (2017). Youth risk behavior survey (YRBS) 2017 standard questionnaire item rationale. Retrieved from

https://www.cdc.gov/healthyyouth/data/yrbs/questionnaires.htm

<sup>&</sup>lt;sup>8</sup> Center for Disease Control and Prevention. (2017). Youth risk behavior survey (YRBS) 2017 standard questionnaire item rationale. Retrieved from <a href="https://www.cdc.gov/healthvyouth/data/vrbs/questionnaires.htm">https://www.cdc.gov/healthvyouth/data/vrbs/questionnaires.htm</a>

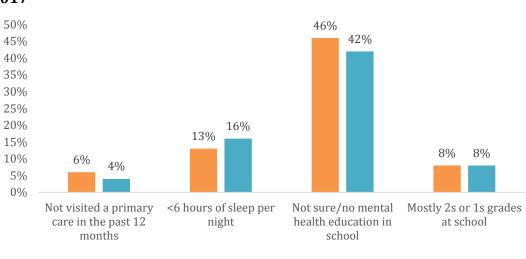


Figure 16. General Health Behaviors among Oak Middle School Participants, 2015 and 2017

#### Sleep Habits and Homelessness

Student participants were further asked questions regarding where they sleep. Insufficient sleep for adolescents is associated with poor health outcomes including obesity, cardiovascular disease, and diabetes.<sup>9</sup> A greater share (16% vs. 13%) of students reported getting 6 hours of sleep at most on a typical school night (Figure 17).

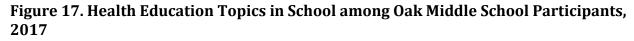
**2**015 **2**017

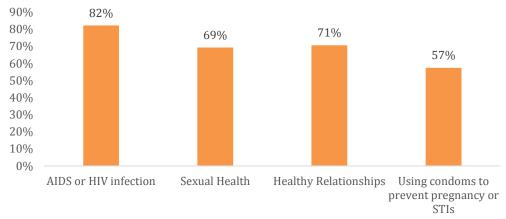
There were questions that also measured homelessness. The night prior to taking the survey, most students reported that they slept at a parent/guardian's home (98%), while few students (1%) slept in the home of a friend, family member, or other person with their parents or guardians.

#### Sexual Health

In a separate question underlined in Figure 17, students reported if they had been taught about AIDS or HIV infection (82%), sexual health (69%), healthy relationships (71%), and preventing pregnancy or STI's with condoms (57%) in school. More students (82% vs. 69%) report having been taught about AIDS or HIV infection in school than in 2015. Sexual health continues to be a key health education topic as individuals between the ages of 15-24 years old acquire nearly half of all new STDs while representing only 25% of the ever sexually active population. Most students (74%) believe the school health curriculum has provided them with many skills and concepts necessary for successful real life choices in and beyond middle school.

<sup>&</sup>lt;sup>9</sup> Center for Disease Control and Prevention. (2017). Youth risk behavior survey (YRBS) 2017 standard questionnaire item rationale. Retrieved from <a href="https://www.cdc.gov/healthyyouth/data/yrbs/questionnaires.htm">https://www.cdc.gov/healthyyouth/data/yrbs/questionnaires.htm</a>

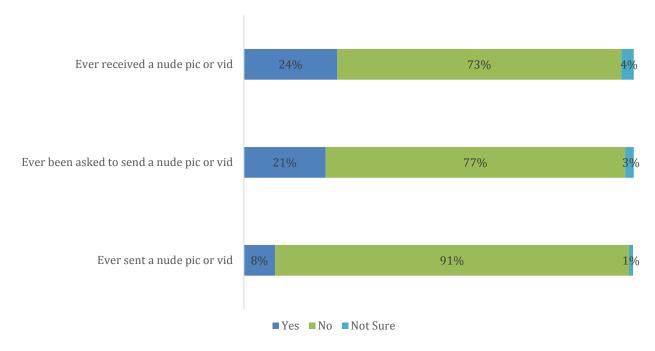




This year's YHS posed questions specifically related to student participants' sexual health and electronic nude media sharing. Forty-one percent (41%) of student participants have talked about ways to prevent HIV infection, other sexually transmitted infections (STIs) or pregnancy with their parents or other adults in their family, in school, or in the community; while 13% of participants were not sure. Approximately 5% of student participants have had sexual intercourse and 3% of students reported condom usage during the last time they had sexual intercourse.

As illustrated in Figure 18, students have more commonly received (24%) or ever been asked to send (21%) a nude or sexually suggestive picture or video as compared to ever having sent a nude themselves (8%).

Figure 18. Sexually Suggestive Electronic Media Sharing among Oak Middle School Participants, 2017



#### Life Adjustment and Future Plans

Student participants were also asked about their post high school futures (Figure 19). The majority (91%) of student participants see themselves going to college or other education training programs after high school. Eight-five percent (85%) have adults in their life who talk to them about planning their future, and 83% like thinking about and are hopeful for their future. When talking about their current lives, participants reported stress (39%) as the top issue among youth (Figure 20). Most of the students at Oak Middle School indicated they were well adjusted in their current life phase as demonstrated in Figure 21 and reported by the following metrics. The majority of students currently have an adult in their life who they can trust and talk to (89%). Eighty-six percent (85%) of students have something in their life that they are good at, and seventy-eight percent (78%) of students know that they can handle most problems that come their way. Seventy-four percent (74%) of students feel they are part of a group in their community that cares about them. A significant minority (43%) of students report they are religious and their faith is important to them.

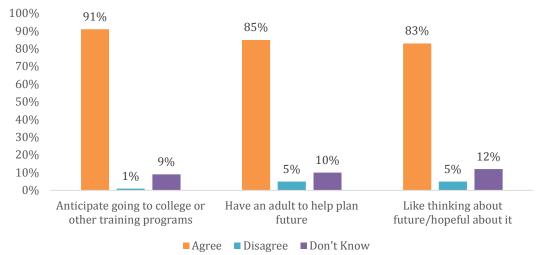


Figure 19. Post High School Attitudes among Oak Middle School Participants, 2017



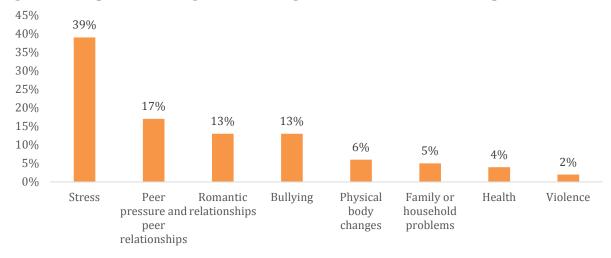
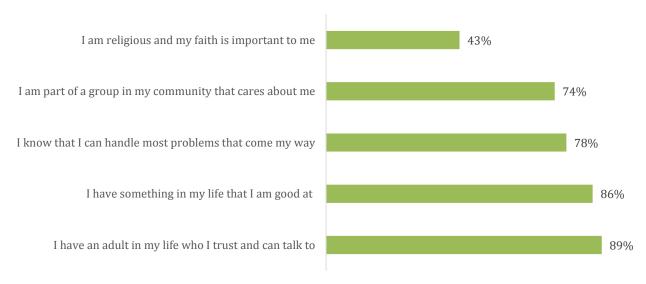


Figure 21. Life Adjusted Attitudes among Oak Middle School Participants, 2017



## **Survey Response Honesty**

The last question of the survey asked the participants how honest they have been in filling out the questions. Nearly all participants (99%) reported satisfactory levels of honesty in filling out the questionnaire (completely honest, very honest, or pretty honest).







# WORCESTER DIVISION OF PUBLIC HEALTH

# YOUTH HEALTH SURVEY

FOR OAK MIDDLE SCHOOL

2017