

Prevention Research Center for Healthy Neighborhoods

# Youth Risk Behavior Survey Project

## 2017 Item Rationale



Prevention Research Center for Healthy Neighborhoods  
at Case Western Reserve University

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**Question Priority Type:**

National- Core, National- Optional, Local

**Demographics**

**QUESTION(S):**

- |    |                             |                 |
|----|-----------------------------|-----------------|
| 1. | How old are you?            | National - Core |
| 2. | What is your sex?           | National - Core |
| 3. | In what grade are you?      | National - Core |
| 4. | Are you Hispanic or Latino? | National - Core |
| 5. | What is your race?          | National - Core |

**RATIONALE:**

These are general demographic questions. They are used to break the survey responses into more meaningful categories.

**QUESTION:**

- |    |                                                                                                                                                           |                     |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| 8. | Which of the following best describes you?                                                                                                                | National – Core     |
| 9. | Some people consider themselves as transgender when their sex at birth does not match the way they think or feel about their gender. Are you transgender? | National - Optional |

**RATIONALE:**

These question measure sexual identity. Sexual minority youth— those who identify as gay, lesbian, or bisexual are part of every community. They are diverse, representing all races, ethnicities, socioeconomic statuses, and parts of the country. While many sexual minority youth cope with the transition from childhood to adulthood successfully and become healthy and productive adults, others struggle as a result of challenges such as stigma, discrimination, family disapproval, social rejection, violence. <sup>(1)</sup> YRBS data indicate that sexual minority students are more likely to engage in health-risk behaviors than other students. <sup>(2)</sup> Data on the sexual minority status of young people are critical for continuing to demonstrate the disproportionate rates at which sexual minority students experience many health risks compared to non-sexual minority students and for developing, implementing, and evaluating policies and programs designed to mitigate these disparities. In 2015, 88.8% of high school students nationwide identified as heterosexual, 2.0% identified as gay or lesbian, 6.0% identified as bisexual, and 3.2% were not sure of their sexual identity. <sup>(3)</sup>

Historically, YRBS and other studies have gathered data on lesbian, gay, and bisexual youth but have not included questions about transgender and questioning/queer youth. <sup>(4)</sup> This question is not part of the YRBS 2017 Optional Question List since as it is still considered a draft. It was created by the CDC after careful

review of the literature on measuring transgender status and consideration what questions has been asked on previous YRBS questionnaires and the results they yielded. There was consultation with advocates and partners who are familiar with the issues surrounding measurement of transgender status. There has yet to be a question used on a YRBS questionnaire that yields a transgender prevalence estimate below 1% which is what we expect transgender prevalence to be. Further, almost all the research done to date on measuring transgender status has occurred among adults. The CDC advises that “If you decide to ask about transgender status on your 2017 YRBS questionnaire, please know that if the question generates credible data (i.e., a prevalence estimate <1%) then a sample size of 3000 students will yield <30 transgender students. This is too small of a cell size to allow any kind of credible analyses of the health risk behaviors of transgender students.”<sup>(5)</sup>

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## Obesity, Overweight, and Weight Control

### QUESTION(S):

- |     |                                              |                 |
|-----|----------------------------------------------|-----------------|
| 6.  | How tall are you without your shoes on?      | National - Core |
| 7.  | How much do you weigh without your shoes on? | National - Core |
| 63. | How do you describe your weight?             | National - Core |

### RATIONALE:

These questions measure self-reported height and weight and perceived body weight. Data on self-reported height and weight are used to calculate body mass index (BMI) and determine the corresponding BMI-for-age percentile for adolescents. BMI-for-age percentile is a proxy measure of weight status, correlates with body fat, <sup>(1)</sup> and is recommended for assessing weight status in youth ages 2–20. <sup>(2)</sup> Although BMI calculated from self-reported height and weight underestimates the prevalence of obesity compared to BMI calculated from measured height and weight, <sup>(3)</sup> self-reported height and weight are useful for tracking BMI trends over time. In addition, obesity prevalence trends from national surveys of adults using self-reported height and weight<sup>(4)</sup> have been consistent with trend data from national surveys using measured height and weight.<sup>(5)</sup> Obesity during adolescence is associated with negative psychological and social consequences and health problems such as type 2 diabetes, obstructive sleep apnea, hypertension, dyslipidemia, and metabolic syndrome. <sup>(6)</sup> Further, obese adolescents are more likely to become obese adults.<sup>(7,8,9)</sup> Continued monitoring of height and weight data through the YRBS provides information at the national, state, and local levels that can be used to track progress in efforts to curb the spread of obesity. Nationwide in 2015, 14% of high school students were obese and 16% were overweight.<sup>(10)</sup> During 1999–2015, significant linear increases occurred in the percentage of students who were obese (11%–14%) and who were overweight (14%–16%).<sup>(10)</sup>

### REFERENCES:

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**QUESTION(S):**

64. Which of the following are you trying to do about your weight? **National - Core**

**RATIONALE:**

This question measures weight goals. The prevention of childhood obesity involves maintaining energy balance at a healthy weight while protecting overall health, growth and development, and nutritional status. <sup>(1)</sup> The weight goal for overweight and obese adolescents (12–18 years) is to achieve a body mass index (BMI) less than the 85th percentile for age and sex. <sup>(2)</sup> The Expert Committee Recommendations Regarding the Prevention, Assessment, and Treatment of Child Item Rationale for the 2017 Standard High School YRBS 3 and Adolescent Overweight and Obesity recommend overweight adolescents (85th percentile < BMI < 95th percentile) achieve a healthy weight by maintaining their current weight while stature increases; obese adolescents (BMI >95th percentile) can pursue weight loss that is not to exceed an average of 2 pounds per week. <sup>(2)</sup> The goals of obesity prevention in children and adolescents also include the avoidance of potentially harmful weight concern and restrictive eating behaviors. For these reasons, understanding adolescents’ weight goals, both independently and relative to weight status, is of public health importance. <sup>(3)</sup> Nationwide in 2015, 46% of high school students were trying to lose weight. <sup>(4)</sup> The percentage of students who were trying to lose weight increased significantly during 1991–2015 (42%–46%).<sup>(4)</sup>

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## Behaviors that Result in Unintentional Injuries

### QUESTION(S):

10. When you rode a bicycle during the past 12 months, how often did you wear a helmet?

**National - Optional**

### RATIONALE:

This question measures the frequency of helmet use while riding a bicycle. In 2012, pedal cycle (including bicycles) injuries were one of the top 10 leading causes of nonfatal injuries that had to be treated at an emergency room among adolescents aged 14–18 in the United States.<sup>(1)</sup> In 2012, over 70,000 of these injuries occurred among 14- to 18-year-olds.<sup>(1)</sup> In 2011, 10% of bicyclists who were killed and 19% of those injured in traffic crashes were under age 16.<sup>(2)</sup> Head injury is the leading cause of death in bicycle crashes<sup>(3, 4)</sup> and use of bicycle helmets is the single most effective way of reducing head injuries and fatalities.<sup>(2)</sup> In 2012, 65% of bicyclists killed reportedly were not wearing helmets.<sup>(5)</sup> Estimates indicate bicycle helmets may prevent approximately 56% of bicycle-related deaths,<sup>(6)</sup> 65%–88% of bicycle-related brain injuries,<sup>(7,8)</sup> and 65% of serious facial injuries to the upper and middle regions of the face.<sup>(9)</sup> In 2013, among the 67% of high school students nationwide who had ridden a bicycle during the 12 months before the survey, 88% had rarely or never worn a bicycle helmet.<sup>(10)</sup> Among students nationwide who had ridden a bicycle, the prevalence of rarely or never wearing a bicycle helmet decreased during 1991–2005 (96%–83%) and then increased during 2005–2013 (83%–88%).<sup>(10)</sup>

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**QUESTION(S):**

11. How often do you wear a seat belt when riding in a car driven by someone else?

**National - Core**

**RATIONALE:**

This question measures the frequency with which seat belts are worn when riding in a car driven by someone else. Motor-vehicle crashes kill more adolescents aged 15–19 years than any other single cause in the United States. <sup>(1)</sup> In 2014, 2,450 adolescents were killed and more than 386,000 were treated in emergency departments for motor vehicle crash-related injuries. <sup>(1)</sup> Seat belts, when used appropriately, reduce the risk of fatal injury to front-seat passenger car occupants by 45% and the risk of moderate-to-critical injury by 50%. <sup>(2)</sup> However, in 2014, among all fatally injured 16- to 19-year-old occupants, seat belt use among passengers (36%) was considerably lower than among drivers (48%). <sup>(3)</sup> In 2015, 6% of high school students nationwide rarely or never wore a seat belt when riding in a car driven by someone else.<sup>(4)</sup> During 1991–2015, among students nationwide, a significant linear decrease occurred in the prevalence of rarely or never wearing a seat belt (26%–6%).<sup>(4)</sup>

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**QUESTION(S):**

12. During the past 30 days, how many times did you ride in a car or other vehicle driven by someone who had been drinking alcohol? **National – Core**
13. During the past 30 days, how many times did you drive a car or other vehicle when you had been drinking alcohol? **National - Core**

**RATIONALE:**

These questions measure the frequency with which high school students drove a motor vehicle while under the influence of alcohol or rode as a passenger in a motor vehicle operated by someone who was under the influence of alcohol. In 2013, 29% of 15- to 20-year-old drivers who were killed in motor vehicle crashes and 3% of those injured in crashes had been drinking alcohol. <sup>(1)</sup> In 2014, 15% of fatally injured passenger vehicle drivers aged 16–17 years old had a blood alcohol concentration equal to or above the illegal threshold for adults of 0.08% at the time of the crash. <sup>(2)</sup> In 2015, among the 61% of high school students who had driven a car or other vehicle during the 30 days before the survey, 8% had driven one or more times when they had been drinking alcohol. During 2013–2015, among high school students who had driven a car or other vehicle during the 30 days before the survey, the prevalence of students who had driven one or more times when they had been drinking alcohol decreased from 10% to 8%. <sup>(3)</sup> Among high school students nationwide, 20% had ridden in a car or other vehicle driven by someone who had been drinking alcohol one or more times during the 30 days before the survey.<sup>(3)</sup> Among students nationwide, the prevalence of riding with a driver who had been drinking alcohol decreased during 1991–2015 (40%–20%). <sup>(3)</sup>

**REFERENCES:**

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#### QUESTION(S):

- During the past 30 days, on how many days did you text or e-mail while driving a car or other vehicle?

**National – Core**

#### RATIONALE:

This question measures the frequency with which students engage in texting or e-mailing while driving a motor vehicle. Motor vehicle crashes are the leading cause of death among U.S. adolescents aged 15–19. <sup>(1)</sup> In 2014, 10% of all drivers aged 15–19 involved in fatal crashes were reported as distracted at the time of the crashes and 21% of these distracted teens were distracted by the use of cell phones. <sup>(2)</sup> Teen drivers are at least as likely to engage in texting while driving as adults, <sup>(3)</sup> are less willing to disengage from a distracting behavior even as more road hazards are presented,<sup>(4)</sup> and are less adept at handling road hazards than adults. <sup>(4)</sup> In 2015, among the 61% of high school students nationwide who had driven a car or other vehicle during the 30 days before the survey, the prevalence of texting while driving one or more times in the 30 days before the survey was 42%. <sup>(5)</sup>

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## Behaviors that Result in Violence

### QUESTION(S):

15. During the past 30 days, on how many days did you carry a weapon such as a gun, knife, or club?  
**National - Core**
16. How long would it take you to get and be ready to fire a loaded gun? The gun could be yours or someone else's and it could be located in your home or car or someone else's home or car.  
**National - Optional**
17. During the past 30 days, on how many days did you not go to school because you felt you would be unsafe at school or on your way to or from school?  
**National - Core**
18. During the past 12 months, how many times has someone threatened or injured you with a weapon such as a gun, knife, or club on school property?  
**National - Core**

### RATIONALE:

These questions measure violence-related behaviors and school-related violent behaviors. Violence is a significant public health issue among youth, with homicide being the third leading cause of death among youth ages 13–19 years (5.1 per 100,000).<sup>(1)</sup> Homicide is the leading cause of death among non-Hispanic black youth ages 13–19 years (19.4 per 100,000) and the third leading cause of death for Hispanic youth ages 13–19 years (4.9 per 100,000).<sup>(1)</sup> Approximately 9% of homicide victims in the United States in 2014 were aged 13–19 years; of these victims, 87% were killed with a firearm.<sup>(1)</sup> Of all violent deaths that occurred on school property between 1994 and 2006, 65% involved firearms.<sup>(2)</sup> Nearly 100% of school districts have a policy prohibiting weapon possession or use by high school students on school property.<sup>(3)</sup> Also, in 2014, 214,304 (727.2 per 100,000) nonfatal, physical assault injuries among youth aged 13–19 years were treated in U.S. emergency departments.<sup>(1)</sup> Among high school students nationwide in 2015, 16% had carried a weapon, 5% had carried a gun, and 4% had carried a weapon on school property on at least 1 day during the 30 days before the survey.<sup>(4)</sup> The prevalence of having carried a weapon decreased during 1991–1997 (26%–18%) and then did not change significantly during 1997–2015 (18%–16%).<sup>(4)</sup> The prevalence of having carried a gun decreased during 1993–1997 (8%–6%) and then did not change significantly during 1997–2015 (6%–5%).<sup>(4)</sup> The prevalence of having carried a weapon on school property decreased during 1993–2015 (12%–4%).<sup>(4)</sup> Among high school students nationwide in 2015, 6% had not gone to school on at least 1 day during the 30 days before the survey because they felt they would be unsafe at school or on their way to or from school and 6% had been threatened or injured with a weapon on school property 1 or more times during the 12 months before the survey.<sup>(4)</sup> Among students nationwide, the prevalence of having not gone to school because of safety concerns increased significantly during 1993–2015 (4%–6%).<sup>(4)</sup> Among students nationwide, the prevalence of having been threatened or injured with a weapon on school property did not change significantly during 1993–2003 (7%–9%) and then decreased during 2003–2015 (9%–6%).<sup>(4)</sup>

Additionally, many unintentional injuries and suicides among youth happen because an unauthorized young person operated a firearm that was obtained from home.<sup>(5)</sup> National studies have reported that more than one third of gun owners keep their weapons loaded either some or all of the time, approximately half of gun owners keep them unlocked, and 20% of firearm-owning households have a loaded unlocked firearm in

the home.<sup>(6)</sup> Gun access and bullying are risk factors for sustaining or perpetrating violence among adolescents. Studies show that adolescents who experience bullying, particularly those who report both traditional bullying and cyberbullying, are more likely to report access to a loaded gun without adult permission.<sup>(7)</sup>

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#### QUESTION(S):

19. During the past 12 months, how many times were you in a physical fight? **National - Core**

#### RATIONALE:

This question is to measure the frequency of physical fights in general. Physical fighting is a marker for other problem behaviors<sup>(1)</sup> and is associated with serious injury-related health outcomes.<sup>(2,3)</sup> Among high school students nationwide in 2015, 23% had been in a physical fight. The percentage of high school students who were in a physical fight decreased significantly during 1991–2015 (42%–23%).<sup>(4)</sup>

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**QUESTION(S):**

20. Have you ever been physically forced to have sexual intercourse when you did not want to? **National - Core**
21. During the past 12 months, how many times did someone you were dating or going out with physically hurt you on purpose? (Count such things as being hit, slammed into something, or injured with an object or weapon.) **National - Core**
22. During the past 12 months, how many times did someone you were dating or going out with force you to do sexual things that you did not want to do? (Count such things as kissing, touching, or being physically forced to have sexual intercourse.) **National - Core**

**RATIONALE:**

These questions measure the frequency of sexual violence and dating violence experienced by students. Sexual and dating violence victimization are associated with a range of negative consequences, <sup>(1-3)</sup> including suicide ideation and attempts, major depressive episodes, <sup>(4,5)</sup> increased alcohol and tobacco use, eating disorders, and risky sexual behavior. <sup>(6,7)</sup> According to the Centers for Disease Control and Prevention’s 2011 National Intimate Partner and Sexual Violence Survey, 19.3% of women have been raped in their lifetime, including 8.8% of women who were raped by an intimate partner. An estimated 44% of women and 23% of men have experienced other forms of sexual violence by any perpetrator and 15.8% of women and 9.5% of men have experienced other sexual violence by an intimate partner at some point in their lifetime. <sup>(8)</sup> About 1 in 4 women (22.3%) and 1 in 7 men (14.0%) have experienced severe physical violence by an intimate partner (e.g., hit with a fist or something hard, beaten, slammed against something) at some point in their lifetime. <sup>(8)</sup> Among adults who ever experienced rape, physical violence, and/or stalking by an intimate partner, 23% of women and 14% of men first experienced some form of partner violence between 11 and 17 years of age. <sup>(8)</sup> Item Rationale for the 2017 Standard High School YRBS 10 All three sexual violence questions are important for understanding the public health burden of sexual violence against young people, guiding prevention strategies, and monitoring changes over time. These data are particularly useful for monitoring changes in trends and the effects of prevention efforts such as CDC’s Rape Prevention Education Program. <sup>(9)</sup> Data on forced sexual activity by any perpetrator — not just a dating partner — provides a better understanding of the burden of sexual violence among high school students because studies have shown that perpetrators can include current or former friends, acquaintances, family members, and other adults. <sup>(8, 10)</sup> Preventing sexual violence by any perpetrator is a focus area for CDC. Also, understanding the full extent of the burden of sexual violence among adolescents is a high priority for the Office of the Vice President. <sup>(11)</sup> Knowing the proportion who are sexually and physically victimized by a dating partner is also crucial because it provides a more

complete measure of teen dating violence and prevention strategies often focus specifically on violence in dating relationships. These estimates are critically important for monitoring progress in this area. In 2015, 7% of high school students nationwide had ever been physically forced to have sexual intercourse when they did not want to. <sup>(12)</sup> The percentage of high school students who had ever been physically forced to have sexual intercourse when they did not want to decreased significantly during 2001–2015 (8%–7%). <sup>(12)</sup> Among the 69% of students who dated or went out with someone during the 12 months before the survey, 10% experienced physical dating violence by a dating partner, and 11% experienced sexual dating violence by a dating partner. <sup>(12)</sup>

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#### QUESTION(S):

23. During the past 12 months, have you ever been bullied on school property? **National - Core**
24. During the past 12 months, have you ever been electronically bullied? (Count being bullied through texting, Instagram, Facebook, or other social media.) **National - Core**

#### RATIONALE:

These questions measure the frequency of bullying behavior. Bullying victimization is associated with depression,<sup>(1,2)</sup> suicidal ideation,<sup>(1,2)</sup> self-injury,<sup>(2)</sup> suicide attempts,<sup>(2)</sup> increased odds of repeated common health problems,<sup>(3)</sup> school absenteeism,<sup>(4)</sup> psychological distress,<sup>(3)</sup> and feeling unsafe at school. <sup>(4)</sup> Electronic bullying victimization has been associated with discipline problems in school, skipping school, weapon carrying, <sup>(1)</sup> psychological distress,<sup>(6)</sup> lower self-esteem, <sup>(7)</sup> social anxiety, <sup>(8)</sup> depression, <sup>(2)</sup> suicidal ideation,<sup>(2)</sup> self-injury,<sup>(2)</sup> and suicide attempts<sup>(2)</sup> . Among high school students nationwide in 2015, 20% reported that they had been bullied on Item Rationale for the 2017 Standard High School YRBS 12 school property during the 12 months before the survey and 16% had been electronically bullied through e-mail, chat rooms, instant messaging, websites, or texting during the 12 months before the survey. <sup>(9)</sup>

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**QUESTION(S):**

25. During the past 12 months, how many times did you do something to purposely hurt yourself without wanting to die, such as cutting or burning yourself on purpose? **National - Optional**
26. During the past 12 months, did you ever feel so sad and hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities? **National - Core**
27. During the past 12 months, did you ever seriously consider attempting suicide? **National - Core**
28. During the past 12 months, how many times did you actually attempt suicide? **National – Core**
29. Have you known someone who has completed suicide? **Local**

**RATIONALE:**

These questions measure sadness, suicide ideation, attempted suicide, and the seriousness of those attempts. Suicide is the second leading cause of death among youth aged 13–19 years. <sup>(1)</sup> The suicide rate for persons aged 13–19 years was 7.3 per 100,000 in 2014. <sup>(1)</sup> A prior suicide attempt is one of the most significant risk factors for a suicide fatality. <sup>(2,3)</sup> Among high school students nationwide in 2015, 30% felt so sad or hopeless almost every day for 2 or more weeks in a row that they stopped doing some usual activities. <sup>(4)</sup> Among high school students nationwide in 2015, 18% had seriously considered attempting suicide, 15% had made a plan about how they would attempt suicide, and 9% had attempted suicide one or more times during the 12 months before the survey. <sup>(4)</sup> The percentage of students who seriously considered attempting suicide decreased during 1991–2009 (29%–14%) and then increased during 2009–2015 (14%–18%). <sup>(4)</sup> The prevalence of having made a suicide plan decreased from 1991–2009

(19%–11%) and then increased from 2009–2015 (11%–15%).<sup>(4)</sup> The percentage of students who attempted suicide increased during 1991–2015 (7%–9%).<sup>(4)</sup>

Question 29 was added in support of the Cuyahoga County Educational Service Center (CCESC). The CCESC is an advisory board member of the Cuyahoga County YRBS and is one of three counties in Ohio piloting Project AWARE Ohio. Project AWARE Ohio is a partnership between the Ohio Department of Education, the Center for School Based-Mental Health Programs at Miami University and the CCESC and the Department of Health and Human Services. Project AWARE aims to raise awareness of behavioral issues among school-aged youth, increase access to services, and increase skills to identify and respond to signs of mental health.<sup>(5)</sup>

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## Tobacco Use

### QUESTION(S):

30. Have you ever tried smoking cigarettes, even one or two puffs? **National - Core**
31. During the past 30 days, on how many days did you smoke cigarettes? **National - Core**
32. During the past 30 days, on the days you smoked cigarettes, how many did you smoke? **National - Core**

### RATIONALE:

These questions measure ever and current smoking patterns, and age of initiation. Cigarette smoking is the leading cause of preventable death in the United States <sup>(1)</sup> and accounts for approximately 440,000 deaths each year. <sup>(2)</sup> Each day across the United States over 3,800 youth under 18 years of age start smoking and more than 80% of adult smokers begin before the age of 18.<sup>(3)</sup> Cigarette smoking increases risk of heart disease; chronic obstructive pulmonary disease; acute respiratory illness; stroke; and cancers of the lung, larynx, oral cavity, pharynx, pancreas, and cervix. <sup>(1,3)</sup> In addition, as compared to nonsmokers, cigarette smokers are more likely to drink alcohol, use marijuana and cocaine, engage in risky sexual behaviors, engage in physical fighting, carry a weapon, and attempt suicide. <sup>(3-5)</sup> Among high school students nationwide in 2015, 32% had ever tried cigarette smoking and 11% had smoked cigarettes on at least 1 day during the 30 days before the survey. <sup>(6)</sup> The percentage of high school students who had ever tried cigarette smoking did not change significantly during 1991–1999 (70%–70%) and then decreased during 1999–2015 (70%–32%). <sup>(6)</sup> The percentage of high school students who had smoked cigarettes on at least 1 day during the 30 days before the survey increased significantly during 1991–1997 (28%–36%) and then decreased during 1997–2015 (36%–11%). <sup>(6)</sup>

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**QUESTION(S):**

- |     |                                                                                    |                        |
|-----|------------------------------------------------------------------------------------|------------------------|
| 33. | Have you ever used an electronic vapor product?                                    | <b>National - Core</b> |
| 34. | During the past 30 days, on how many days did you use an electronic vapor product? | <b>National - Core</b> |

**RATIONALE:**

These questions measure the prevalence of use of electronic vapor products and access to these products. Electronic vapor products are electronic devices that are usually shaped like a cigarette or cigar and contain a nicotine-based liquid that is vaporized and inhaled. Electronic vapor products include electronic cigarettes (e-cigarettes), electronic cigars (e-cigars), electronic hookahs (e-hookahs), and vape pens. E-cigarettes are battery-powered devices that provide doses of nicotine and other additives to the user in an aerosol. Depending on the brand, e-cigarette cartridges typically contain nicotine, a component to produce the aerosol (e.g., propylene glycol or glycerol), and flavorings (e.g., fruit, mint, or chocolate). <sup>(1)</sup> In 2016, the U.S. Food and Drug Administration finalized a rule to regulate e-cigarettes and other electronic vapor products as tobacco products. <sup>(2)</sup> This rule will prevent sales to minors, prohibit few samples, prohibit vending machine sales (unless in a facility that never admits minors), and mandate warning labels on Item Rationale for the 2017 Standard High School YRBS 16 packaging. <sup>(2)</sup> Among high school students nationwide in 2015, 45% had ever tried electronic vapor products and 24% of high school students had used electronic vapor products on at least 1 day during the 30 days before the survey. <sup>(3)</sup> According to the National Youth Tobacco Survey, 2015 marked the second year in a row that e-cigarettes were the most popular tobacco product among high school students. <sup>(4)</sup>

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#### QUESTION(S):

35. During the past 30 days, on how many days did you smoke cigars, cigarillos, little cigars, or flavored cigars such as Black & Milds, Swisher Sweets, or Phillies? **National – Core**
36. During the past 30 days, on the days that you smoked cigars, cigarillos, little cigars, or flavored cigars such as Black & Milds, Swisher Sweets, or Phillies, how many did you smoke? **Local**

#### RATIONALE:

These questions measure ever and current cigar smoking patterns and age of initiation. Like cigarettes, cigar smoking can cause lung cancer, coronary heart disease, and chronic obstructive pulmonary disease. <sup>(1-3)</sup> Cigar smoking can cause lung cancer, coronary heart disease, and chronic obstructive pulmonary disease. <sup>(7-9)</sup> The overall risk of oral and pharyngeal cancer is 7–10 times higher among cigar smokers compared to those who never smoked. <sup>(10)</sup> In 2015, 10% of high school students nationwide had smoked cigars, cigarillos, or little cigars on at least 1 day during the 30 days before the survey. <sup>(5)</sup> The percentage of students who had smoked cigars, cigarillos, or little cigars on at least 1 day during the 30 days before decreased during 1997–2015 (22%–10%). <sup>(5)</sup> However, this prevalence is likely underreported due to the lack of branded examples in national surveys. These questions were modified to include common brands and the indication of flavor which has been shown to increase reporting of cigar use, specifically among African American adolescents in urban areas. <sup>(5,6)</sup>

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**QUESTION(S):**

37. During the past 30 days, on how many days did you smoke tobacco in a hookah, narghile, or other type of water pipe? **National - Optional**
38. What was the first tobacco product you ever tried? **Local**
39. How old were you when you used your first tobacco product? (Include things such as cigarettes, cigars, little cigars, flavored cigars, hookah, and chewing tobacco)? **Local**

**RATIONALE:**

These questions are used to assess the use of non-traditional tobacco products. Hookah use, along with other tobacco products, has recently emerged in research. <sup>(1,2)</sup> Increasing rates of other tobacco product use among adolescents seems to be two-fold; they are perceived as less harmful than cigarettes<sup>(3)</sup> and that are often more accessible and affordable than cigarettes. <sup>(4)</sup> First tobacco product tried is used to ascertain which products may be considered “gateway” products.

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## QUESTION(S):

40. During the past 12 months, did you ever try to quit using all tobacco products, including cigarettes, cigars, smokeless tobacco, shisha or hookah tobacco, and electronic vapor products? **National - Core**

## RATIONALE:

This question measures attempts to quit using all tobacco products. Nicotine exposure during adolescence, a critical period for brain development, can cause addiction, might harm brain development, and could lead to sustained tobacco product use among youths. <sup>(1,2,3)</sup> Therefore, among youth, there is no safe exposure to nicotine, be it from combustible, non-combustible, or electronic sources. Before 2017, the YRBS assessed the prevalence of high schools students who attempted to quit smoking cigarettes during the 12 months before the survey. The questionnaire item has now been expanded to include all tobacco products. In 2015, among high school students nationwide who currently smoked cigarettes during the 12 months before the survey, 45% had tried to quit smoking cigarettes during those 12 months. <sup>(4)</sup> The percentage of current cigarette smokers who tried to quit smoking cigarettes during the 12 months before the survey decreased from 2001–2015 (57%–45%). <sup>(4)</sup>

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## Alcohol and Other Drug Use

### QUESTION(S):

- |     |                                                                                                                                                                            |                        |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| 41. | During your life, on how many days have you had at least one drink of alcohol?                                                                                             | <b>National - Core</b> |
| 42. | How old were you when you had your first drink of alcohol other than a few sips?                                                                                           | <b>National - Core</b> |
| 43. | During the past 30 days, on how many days did you have at least one drink of alcohol?                                                                                      | <b>National - Core</b> |
| 44. | During the past 30 days, on how many days did you have 4 or more drinks of alcohol in a row (if you are female) or 5 or more drinks of alcohol in a row (if you are male)? | <b>National - Core</b> |

### RATIONALE:

These questions measure ever and current use of alcohol, age of initiation, binge drinking, the largest number of alcoholic drinks consumed during a drinking occasion, and access to alcohol. Alcohol is used by more young people than tobacco or illicit drugs. <sup>(1)</sup> Heavy alcohol drinking and binge drinking among youth is associated with risky sexual behaviors, being a victim of dating violence, and use of cigarettes, marijuana, cocaine, and other illegal drugs. <sup>(2-4)</sup> Persons who start drinking before age 15 years are six times more likely to develop alcohol dependence or abuse later in life than those who begin drinking at or after age 21 years. <sup>(5)</sup> Initiation of alcohol use before 13 years of age also has been associated with an increased risk for suicide. <sup>(6,7)</sup> Binge drinking is the most common pattern of excessive alcohol use in the United States, and about 90% of the alcohol consumed by youth is in the form of binge drinks. <sup>(8,9)</sup> The National Institute on Alcohol Abuse and Alcoholism defines binge drinking as a pattern of drinking that brings a person's blood alcohol concentration to 0.08% or above. This typically happens when males consume 5 or more drinks and when females consume 4 or more drinks in about 2 hours. <sup>(10)</sup> Limiting youth access to alcohol has reduced underage alcohol use and alcohol-related problems. <sup>(11-13)</sup> However, youth continue to obtain alcohol from a variety of sources, particularly from adults of legal drinking age. <sup>(14)</sup> Among high school students nationwide in 2015, 63% drank at least one drink of alcohol on at least 1 day during their life and 33% had had at least one drink of alcohol on at least 1 day during the 30 days before the survey. <sup>(14)</sup> In addition, 18% of high school students had had 5 or more drinks of alcohol in a row on at least 1 day during the 30 days before the survey. <sup>(14)</sup> The percentage of high school students who had at least one drink of alcohol on at least 1 day during their life decreased significantly during 1991–2015 (82%–63%). <sup>(14)</sup> Likewise, the percentage of students who had at least one drink of alcohol on at least 1 day during the 30 days before the Item Rationale for the 2017 Standard High School YRBS 21 survey decreased significantly during 1991–2015 (51%–33%). <sup>(14)</sup> The percentage of students who had 5 or more drinks of alcohol in a row on at least 1 day during the 30 days before the survey increased from 1991–1999 (31%–32%) and then decreased from 1999–2015 (32%– 18%). <sup>(14)</sup>

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## QUESTION(S):

45. During your life, how many times have you used marijuana? **National - Core**
46. How old were you when you tried marijuana for the first time? **National - Core**
47. During the past 30 days, how many times did you use marijuana? **National - Core**
48. During the past 30 days, how did you usually use marijuana? **Local**
49. During your life, how many times have you taken a prescription pain medicine without a doctor's prescription or differently than how a doctor told you to use it? (Count drugs such as codeine, Vicodin, OxyContin, Hydrocodone, and Percocet) **National - Core**
50. During your life, how many times have you used synthetic drugs (also called "designer drugs" such as synthetic marijuana, K2, Spice, fake weed, King Kong, Yucatan Fire, Skunk, or Moon Rocks herbal incense, or bath salts)? **National - Core**
51. During your life, how many times have you used any illicit drug, such as any form of cocaine, heroin, methamphetamines, speed, LSD, or ecstasy? **National - Core**
52. During the past 12 months, has anyone offered, sold or given you an illegal drug on school property? **National - Core**

## RATIONALE:

These questions measure ever and current use of marijuana (including synthetic marijuana), ever use of illicit drugs (such as cocaine, heroin, methamphetamines, etc), use of prescription pain medicine without a doctor's prescription, or used in a manner differently than instructed by the doctor; and illegal drug activity on school property. Among youth, illicit drug use is associated with heavy alcohol and tobacco use, <sup>(1)</sup> violence and delinquency, <sup>(2-4)</sup> and suicide. <sup>(5)</sup> Synthetic marijuana use has been linked with adverse effects such as increased heart rate and blood pressure, drowsiness, nausea, vomiting, chest pain, hallucinations, agitation, and acute kidney injury. <sup>(6-8)</sup> All school districts prohibit illegal drug possession or use by students on school property. <sup>(9)</sup> Among high school students nationwide in 2015, 39% had used marijuana, 9% had used synthetic marijuana, and 4% had taken steroid pills or shots without a doctor's prescription one or more times during their life. <sup>(10)</sup> Prescription drug abuse is reaching prevalence levels near use of marijuana among adolescents. 9.1% of teens aged 12-17 misused prescription drugs in 2005. In 2006, there were as many new abusers of prescription drugs as new users of marijuana. <sup>(12)</sup> Prescription and over the counter medications are widely available, free or inexpensive, and falsely believed to be safer than illicit drugs. In 2006, 2.1 million teens abused prescription drugs and an additional 2.1 million had misused over the counter cough and cold medications at least once in their lifetime. <sup>(12)</sup> Drug abuse may contribute to depression and suicide, unintended pregnancy, school failure, violent behavior, delinquency, and transmission of sexually transmitted diseases, including HIV. <sup>(13)</sup> Also, 22% of students had been offered, sold, or given an illegal drug on school property during the 12 months before the survey. <sup>(10)</sup>

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## Sexual Behaviors that Contribute to Unintended Pregnancy and Sexually Transmitted Diseases, Including HIV Infection

### QUESTION(S):

- |     |                                                                                                                                         |                            |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| 53. | Have you ever had sexual intercourse?                                                                                                   | <b>National – Core</b>     |
| 54. | How old were you when you had sexual intercourse for the first time?                                                                    | <b>National – Core</b>     |
| 55. | During your life, with how many people have you had sexual intercourse?                                                                 | <b>National – Core</b>     |
| 56. | During the past 3 months, with how many people did you have sexual intercourse?                                                         | <b>National – Core</b>     |
| 57. | Did you drink alcohol or use drugs before you had sexual intercourse the last time?                                                     | <b>National - Core</b>     |
| 58. | The last time you had sexual intercourse, did you or your partner use a condom?                                                         | <b>National - Core</b>     |
| 59. | The last time you had sexual intercourse, what one method did you or your partner use to prevent pregnancy? (Select only one response.) | <b>National - Core</b>     |
| 85. | Have you ever been taught about AIDS or HIV infection in school?                                                                        | <b>National - Optional</b> |
| 86. | Have you ever been tested for HIV, the virus that causes AIDS?                                                                          | <b>National – Optional</b> |

### RATIONALE:

These questions measure the prevalence of sexual activity, number of sexual partners, age at first intercourse, alcohol and other drug use related to sexual activity, condom use, contraceptive use, and whether high school students have been tested for HIV. Early initiation of sexual intercourse is associated with having a greater number of lifetime sexual partners. <sup>(1,2)</sup> In addition, adolescents who initiate sexual intercourse early are less likely to use contraception<sup>(2,3)</sup> and are at higher risk for STDs<sup>(4)</sup> and pregnancy. <sup>(5,6)</sup> Estimates suggest that while representing 25% of the ever sexually active population, persons aged 15 to 24 years acquire nearly half of all new STDs.<sup>(7)</sup> Both chlamydia and gonorrhea rates are highest among young women between the ages of 20 and 24 years (2484.6 cases per 100,000 individuals and 533.7 cases per 100,000 individuals, respectively). <sup>(8)</sup> In 2013, there were an estimated 1,908 persons ages 13–19 years newly diagnosed with HIV infection and 7,157 living with diagnosed HIV infection. <sup>(9)</sup> In 2014, young people aged 13–24 accounted for 22% of all new HIV infections in the United States.<sup>(10)</sup>

Among high school students nationwide in 2015, 41% had ever had sexual intercourse, 12% had had sexual intercourse with four or more persons during their life, and 30% had had sexual intercourse with at least one person during the 3 months before the survey.<sup>(11)</sup> The percentage of students who ever had sexual intercourse decreased during 1991–2015 (54%–41%).<sup>(11)</sup> The percentage of students who had sexual intercourse with four or more persons during their life decreased during 1991–2015 (19%–12%).<sup>(11)</sup> During 1991–2015, there was a significant linear decrease in the percentage of students who had had sexual intercourse with at least one person during the 3 months before the survey (38%–30%).<sup>(11)</sup> In 2015, among the 30% of students who were currently sexually active, 57% reported that either they or their partner had used a condom during last sexual intercourse. <sup>(11)</sup> The percentage of

sexually active students who used a condom during last sexual intercourse increased during 1991–2003 (46%–63%) and then did not change significantly during 2003–2015 (63%–57%).<sup>(11)</sup>

Additionally, too many people do not know they are infected with HIV. About 1.2 million people are living with HIV in the US, but 1 in 5 do not know they are infected.<sup>(1)</sup> Each year, about 50,000 people get infected with HIV in the U.S. HIV testing is an integral part of the National HIV/AIDS Strategy for the United States and routine testing is one of the most important strategies recommended for reducing the spread of HIV and improving the health outcomes for those already infected.<sup>(2,3)</sup> State and local education agencies and schools are essential partners in this effort. Educating students about HIV and other STDs might increase students' likelihood of being tested.<sup>(4)</sup> Further, schools have a critical role to play in facilitating delivery of HIV preventive services for adolescents.<sup>(4,5)</sup> State and local data on HIV testing will help agencies examine local trends in testing behaviors, identify disparities in testing, and determine whether high risk youth are being tested.<sup>(5,6)</sup> In 2015, 10% of high school students nationwide had ever tested for HIV.<sup>(7)</sup> The percentage of high school students who have ever been tested for HIV did not change from 2005–2011 (12%–13%), but significantly decreased from 2011–2015 (13%–10%).<sup>(7)</sup>

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**QUESTION(S):**

87. Have your parents or other adults in your family ever talked with you about what they expect you to do or not to do when it comes to sex? **National - Optional**

**RATIONALE:**

When young people feel unconnected to home, family, and school, they may become involved in activities that put their health at risk. Most adults want youth to know about abstinence, contraception, and how to prevent HIV and other sexually transmitted infections (STIs), parents often have difficulty communicating about sex. Nevertheless, positive communication between parents and their children greatly helps young people to establish individual values

and to make healthy decisions. <sup>(1)</sup> Adolescents who have repeated communications about sex, sexuality, and development with their parents, are more likely to have an open and closer relationships with them, in addition to being more likely to talk with their parents in the future about sex issues than adolescents whose sexual communication with their parents included less repetition. <sup>(2)</sup> Additionally, teens who reported previous discussions of sexuality with parents were seven times more likely to feel able to communicate with a partner about HIV/AIDS than those who had not had such discussions with their parents. <sup>(3)</sup>

In an effort to better understand the impact of funded partners' program activities, DASH staff asked that funded partners add an optional question focusing on sexual health services, sexual health education, and protective factors. We chose to add this question about parents, adults, or other family members communication about sex into the survey to inform both responsible sexual health and protective factor data.

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**QUESTION(S):**

60. How many times have you been pregnant or gotten someone pregnant? **National - Optional**

**RATIONALE:**

This question measures whether the student or their partner had ever been or had ever gotten someone pregnant. Since 1990, teen pregnancy and birth rates in the United States have declined significantly. Researchers cite two main factors: fewer teens are having sex, and among those who are, more are using contraceptives.<sup>(1)</sup> While this is a positive trend, there are still risks for those teens that are entering into sexual relationships during their adolescent years. <sup>(1)</sup>

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**QUESTION(S):**

61. During your life, with whom have you had sexual contact? **National - Core**
62. Who are you sexually attracted to? **National - Optional**

## RATIONALE:

These questions measure sexual identity and sex of sexual partners. Sexual minority youth— those who identify as gay, lesbian, or bisexual or who have sexual contact with persons of the same or both sexes—are part of every community and come from all walks of life. They are diverse, representing all races, ethnicities, socioeconomic statuses, and parts of the country. While many sexual minority youth cope with the transition from childhood to adulthood successfully and become healthy and productive adults, others struggle as a result of challenges such as stigma, discrimination, family disapproval, social rejection, violence. <sup>(1)</sup> YRBS data indicate that sexual minority students are more likely to engage in health-risk behaviors than other students.<sup>(2)</sup> Sexual minority youth are also at increased risk for certain negative health outcomes. For example, young gay and bisexual males have disproportionately high rates of HIV and syphilis, <sup>(3,4)</sup> and adolescent lesbian and bisexual females are more likely to have ever been pregnant than their heterosexual peers. <sup>(5)</sup> Increasing attention has been given to the HIV prevention needs of young men who have sex with other men (YMSM) as they are more likely than males who have only had sexual contact with females to engage in sexual risk-taking behaviors and HIV infection rates among YMSM are disproportionately high. <sup>(6)</sup> Data on the sexual minority status of young people are critical for continuing to demonstrate the disproportionate rates at which sexual minority students experience many health risks compared to non-sexual minority students and for developing, implementing, and evaluating policies and programs designed to mitigate these disparities.

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## Dietary Behaviors

### QUESTION(S):

65. During the past 7 days, how many times did you drink 100% fruit juices such as orange juice, apple juice, or grape juice? (Do not count punch, Kool-Aid, sports drinks, or other fruit-flavored drinks) **National – Core**
66. During the past 7 days, how many times did you eat fruit? (Do not count fruit juice.) **National – Core**
67. During the past 7 days, how many times did you eat green salad? **National - Core**
68. During the past 7 days, how many times did you eat potatoes? (Do not count French fries, fried potatoes or potato chips). **National – Core**
69. During the past 7 days, how many times did you eat carrots? **National – Core**
70. During the past 7 days, how many times did you eat other vegetables (Do not count green salad, potatoes, or carrots)? **National - Core**

### RATIONALE:

These questions measure dietary behaviors, including consumption of fruits and vegetables. The fruit and vegetable questions are similar to questions asked of adults on the Centers for Disease Control and Prevention’s Behavioral Risk Factor Surveillance System 2009 survey questionnaire. <sup>(1)</sup> Fruits and vegetables are good sources of complex carbohydrates, vitamins, minerals, and other substances that are important for good health. <sup>(2)</sup> There is probable evidence to suggest that dietary patterns with higher intakes of fruits and vegetables are associated with a decreased risk for some types of cancer, <sup>(3-5)</sup> cardiovascular disease,<sup>(6)</sup> and stroke.<sup>(7)</sup> Although data are limited, an increased intake of fruits and vegetables appears to be associated with a decreased risk of being overweight. <sup>(8-10)</sup> However, most youth do not meet the recommendations for fruit and vegetable consumption. <sup>(11,12)</sup> In 2015, during the 7 days before the survey, 32% of high school students nationwide had eaten fruit or drunk 100% fruit juice two or more times per day and 15% of students had eaten vegetables three or more times per day. <sup>(13)</sup> The percentage of students who ate vegetables three or more times per day increased significantly during 1999–2015 (14%–15%). <sup>(13)</sup>

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**QUESTION(S):**

70. In an average school week, on how many days do you drink water at school, including water from a fountain, a sink, or faucet, a bottle, a reusable bottle you brought from home, or some other source?

**National - Core**

**RATIONALE:**

Water is vital for life, and plain water is a calorie-free option for hydration.<sup>(1)</sup> Getting enough water every day is important for one’s health. Healthy people meet their fluid needs by drinking when thirsty and drinking with meals. Most of one’s fluid needs are met through the water and beverages they drink. <sup>(2)</sup> When selecting beverages, adolescents should be aware that water and low-fat or fat-free milk are the most healthful. <sup>(2)</sup> Providing students with access to safe, free drinking water throughout the school day is one strategy schools can use to create an environment that supports health and learning. Providing access to drinking water gives students a healthy alternative to sugar-sweetened beverages. It helps to increase students’ overall water consumption, maintain hydration, and reduce energy intake if substituted for sugar-sweetened beverages.<sup>1-3</sup> Adequate hydration also may improve cognitive function in children and adolescents.<sup>4-8</sup>

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**QUESTION(S):**

72. During the past 7 days, on how many days did you eat breakfast? **National – Core**
73. During the past 7 days, on how many days did you eat at least one meal or snack from a fast food restaurant such as McDonald’s, Taco Bell, or KFC? **National - Optional**

**RATIONALE:**

Eating breakfast is associated with weight loss and weight loss maintenance,<sup>(1)</sup> improved nutrient intake,<sup>(1)</sup> and better cognitive function, academic performance, school attendance rates, psychosocial function, and mood.<sup>(2,3)</sup> In 2015, 36% of high school students nationwide ate breakfast on all 7 days before the survey.<sup>(4)</sup> In 2013, 38% of high school students nationwide ate breakfast on all 7 days before the survey.<sup>(5)</sup> Diet and nutrition have important links to adolescent health and well-being, as well as to major causes of morbidity and mortality later in life. Eating fast food is typically an unhealthy option and increased consumption is closely linked with obesity.<sup>(6-8)</sup>

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#### QUESTION(S):

74. During the past 30 days, how often did you go hungry because there was not enough food in your home? **National - Optional**

#### RATIONALE:

Food insecure children and adolescents are more likely to have iron deficiency anemia.<sup>(1)</sup> From a review article: food insecurity is "associated with lower dietary quality"; childhood food insecurity is related to adult obesity; and there are "associations between limited access to food and indicators of poor cognitive development and emotional or behavioral problems".<sup>(2)</sup>

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## Physical Activity

### QUESTION(S):

75. During the past 7 days, on how many days were you physically active for a total of at least 60 minutes per day? (Add up all the time you spend in any kind of physical activity that increases your heart rate and makes you breathe hard some of the time. **National – Core**
76. On an average school day, how many hours do you watch TV? **National - Core**
77. On an average school day, how many hours do you play video or computer games or use a computer for something that is not school work? (Count time spent on things such as Xbox, PlayStation, an iPad or tablet, a smartphone, texting, YouTube, Instagram, Facebook or other social media.) **National - Core**
78. During the past 12 months, on how many sports teams did you play? (Count any teams run by your school or community groups.) **National – Core**

### RATIONALE:

These questions measure participation in physical activity and team sports and attendance in physical education classes. These questions also examine time spent watching television (TV) and using a computer or playing video games. Participation in regular physical activity among young people can help build and maintain healthy bones and muscles, maintain body weight and reduce body fat, reduce feelings of depression and anxiety, and promote psychological wellbeing.<sup>(1)</sup> Over time, regular physical activity decreases the risk of high blood pressure, heart disease, diabetes, obesity, some types of cancer, and premature death. <sup>(1)</sup> In 2008, the U.S. Department of Health and Human Services recommended that young people aged 6–17 years participate in at least 60 minutes of physical activity daily. <sup>(2)</sup> In 2015, 27% of high school students were physically active doing any kind of physical activity that increased their heart rate and made them breathe hard some of the time for a total of at least 60 minutes per day on each of the 7 days before the survey. <sup>(3)</sup> In 2012, the U.S. Department of Health and Human Services released a mid-course report on the Physical Activity Guidelines for Americans. <sup>(4)</sup> This report focused on strategies to increase physical activity among youth. The report concluded that school-based settings had the strongest evidence and multi-component physical activity programs, including physical education, had the most promise for increasing physical activity. In 2013, the Institute of Medicine (IOM) released *Educating the Student Body: Taking Physical Activity and Physical Education to School*. <sup>(5)</sup> This report also stressed the importance of a comprehensive, multi-component, whole school approach to physical activity in schools. CDC and many other federal and national partners are promoting Comprehensive School Physical Activity Programs (CSPAP) to create school environments that offer many opportunities for students to be physically active throughout the school day. <sup>(6)</sup> A CSPAP includes strong coordination across five components: physical education, physical activity during school, Item Rationale for the 2017 Standard High School YRBS 36 physical activity before and after school, staff involvement, and family and community engagement. Physical education is the cornerstone of CSPAP with research showing that school physical education classes can increase adolescent participation in physical activity <sup>(7-13)</sup> and help

high school students develop the knowledge, attitudes, and skills they need to engage in lifelong physical activity. (4,14-16) In 2015, 52% of high school students nationwide went to physical education classes on 1 or more days in an average week when they were in school. (3)

Watching TV and using a computer are considered sedentary behaviors. Among youth, time spent watching TV is associated with childhood and adult obesity, consumption of fast food, soft drinks, and high-fat snacks, and consumption of fewer fruits and vegetables.<sup>(17-24)</sup> Youth who engage in less than two hours of TV viewing per day tend to be more active. <sup>(16)</sup> Computer usage and video game playing are associated with physical inactivity among adolescents and young adults. <sup>(25)</sup> Among high school students nationwide in 2015, 42% of students played video or computer games or used a computer for something that was not school work for 3 or more hours per day on an average school day and 25% watched television 3 or more hours per day on an average school day. <sup>(3)</sup> The percentage of students who used computers 3 or more hours per day increased significantly during 2003–2009 (22%–25%) and then increased more rapidly during 2009–2015 (25%–42%).<sup>(3)</sup> During 1999–2015, a significant linear decrease occurred in the percentage of high school students who watched television 3 or more hours per day (43%–25%). <sup>(3)</sup>

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**QUESTION(S):**

79. In an average school week, on how many days do you walk or ride your bike to or from school when the weather allows you to do so? **National - Optional, Local**

**RATIONALE:**

Active travel to school provides an opportunity for daily physical activity. Studies have shown that walking and biking to school are associated with higher physical activity levels.<sup>(1,2)</sup> Adolescents who bike to school are more fit than those who walk or travel by motorized transport.<sup>(3)</sup> This question also supports research for the YMCA REACH Grant.

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## Developmental Assets and Protective Factors

### QUESTION(S):

- |     |                                                                                                                                                                                                                                                                                           |              |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| 80. | During the past 7 days, on how many days did you take part in organized after school, evening, or weekend activities (other than sports teams) such as school clubs, community center groups, music/art/dance lessons, drama, church, or other supervised activity?                       | <b>Local</b> |
| 81. | During the past 7 days, how many hours did you spend helping other people without getting paid (such as helping out at a hospital, daycare center, food pantry, youth program, community service agency, or doing other things) to make your community a better place for people to live? | <b>Local</b> |
| 82. | How often does one of your parents talk with you about what you are doing in school?                                                                                                                                                                                                      | <b>Local</b> |
| 83. | Do you agree or disagree that students help decide what goes on in your school?                                                                                                                                                                                                           | <b>Local</b> |
| 84. | Do you agree or disagree that in your community you feel like you matter to people?                                                                                                                                                                                                       | <b>Local</b> |
| 92. | Besides your parents, how many adults would you feel comfortable seeking help from if you had an important issue or question affecting your life?                                                                                                                                         | <b>Local</b> |

### RATIONALE:

These questions, along with grades in school are considered developmental assets. Developmental assets are grouped into external (support, empowerment, boundaries and expectations, and constructive use of time) and internal (commitment to learning, positive values, social competencies, and positive identity) assets.<sup>(1)</sup> The dichotomized variables are used to determine associations between developmental assets and risk behaviors.

Students were asked about the number of trusted adults that they felt they have. Over time it has been determined that promoting positive asset building and considering young people as resources could be critical strategies. As a result, the field of youth development began examining the role of protective factors in a young person's environment and how these factors could influence one's choices.<sup>(2)</sup> Protective factors include, but are not limited to: family support, caring adults, positive peer groups, strong sense of self and self-esteem, and engagement in school and community activities.

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## Sleep

### QUESTION(S):

87. On an average school night, how many hours of sleep do you get? **National - Core**

### RATIONALE:

This question measures the amount of sleep students get on an average school night. Sleep is necessary for physical and mental health and is particularly important during adolescence, a phase of rapid biologic growth and development.<sup>(1)</sup> According to the 2006 Sleep in America poll, more than half of adolescents are getting insufficient sleep on school nights. <sup>(2)</sup> Lack of adequate sleep among adolescents is associated with daytime sleepiness,<sup>(3,4)</sup> falling asleep during class,<sup>(5)</sup> general inattentiveness,<sup>(5)</sup> classroom behavioral problems,<sup>(5)</sup> drowsy driving,<sup>(1,3)</sup> depressed mood,<sup>(1,3,6)</sup> headaches, <sup>(6)</sup> and poor school performance. <sup>(7)</sup> Evidence tying insufficient sleep to poor health outcomes such as obesity, cardiovascular disease, and diabetes is also growing. <sup>(8-10)</sup> Analysis of data from the national YRBS has shown that insufficient sleep is associated with higher odds of current use of cigarettes, marijuana, and alcohol; current sexual activity; seriously considering attempting suicide; feeling sad or hopeless; physical fighting; physical inactivity; obesity; engaging in injury-related risk behaviors; and engaging in unhealthy weight control behaviors. <sup>(11-14)</sup>

In 2015, the National Sleep Foundation recommended that teens aged 14-17 years get 8- 10 hours of sleep per night.<sup>(15)</sup> Healthy People 2020 contains four sleep health-related objectives, including one for adolescents. This objective is to “increase the proportion of students in grades 9 through 12 who get sufficient sleep (defined as 8 or more hours of sleep on an average school night).”<sup>(16)</sup> According to 2015 YRBS data, nationwide, 27% of high school students got 8 or more hours of sleep on an average school night.<sup>(17)</sup> The percentage of high school students who got 8 or more hours of sleep on an average school night decreased significantly from 2007–2015 (31%–27%).<sup>(16)</sup>

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## Access to Care, Preventive Health Care and Perception of Health

### QUESTION(S):

- |     |                                                                                                                                |                            |
|-----|--------------------------------------------------------------------------------------------------------------------------------|----------------------------|
| 89. | How do you describe your health in general?                                                                                    | <b>National - Optional</b> |
| 90. | When was the last time you saw a doctor or nurse for a check-up or physical exam when you were not sick or injured?            | <b>National - Optional</b> |
| 91. | During the past 12 months, did you see a doctor, nurse, or counselor about stress, depression, or problems with your emotions? | <b>Local</b>               |

### RATIONALE:

These questions asked students about seeing health professionals for their health needs, and their general assessment of health. Nationwide, adolescents have the lowest utilization rate of health care services of any age group. Barriers to care include cost of care; low family income; stigma; distrust; confidentiality and parental consent; lack of medical insurance; embarrassment about and lack of transportation to reproductive health services; lack of knowledge about where or how to access care; and lack of adolescent-friendly services.<sup>(1)</sup>

A social stigma continues to surround mental health disorders, and mental health care is frequently difficult to access. In 2013, 10 percent of adolescents lacked insurance and, <sup>(2)</sup> when they are covered, the amount of mental health services they can receive is often limited.<sup>(3)</sup> Initially identifying a mental health disorder is also challenging—issues are often first identified at school. Researchers have documented a number of disparities in access. Among adolescents, those that are homeless; served by state child welfare and juvenile justice systems; and are lesbian, gay, bisexual, and/or transgender are often the least likely to receive services. <sup>(4-6)</sup>

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## Additional Information

### QUESTION(S):

92. Besides your parents, how many adults would you feel comfortable seeking help from if you had an important question affecting your life? **National - Optional**
93. Who do you live with most of the time? **Local**
97. During the past 30 days, where did you usually sleep? **National - Optional**
98. How often do you feel safe and secure in your neighborhood? **National - Optional**

### RATIONALE:

These questions are used to determine household and family structure. They can be used as risk or protective factors in association with many risk behaviors. Most often, they are used to determine whether a student lives in a two-parent, one-parent, or non-parental guardian home and to examine behaviors with relationship to stability of family structure.<sup>(1, 2)</sup> Additionally, adverse childhood experiences such as childhood abuse, neglect, and childhood health problems are strongly associated with frequent residential mobility.<sup>(3)</sup> Neighborhoods with high levels of crime are often densely populated, mixed use (businesses and residences in the same area) areas, with concentrated poverty, a transient population, a high proportion of single-parent households, and dilapidated buildings. <sup>(4,5)</sup> Children and adolescents living in neighborhoods characterized by crime or disorganization are more likely to become victims of violent crime<sup>(6)</sup> and to perpetrate acts of violence. <sup>(7)</sup> Children who witness crime and violence are more likely to experience social and emotional problems such as aggression, stress, and withdrawal, as well as delinquency and low school achievement. <sup>(8,9)</sup> Having a safe neighborhood is important for positive child and youth development.<sup>(10)</sup> Neighborhoods that are unsafe are associated with high rates of infant mortality and low birthweight, juvenile delinquency, high school dropout, child abuse and neglect, <sup>(11)</sup> and poor motor and social development among pre-school children. <sup>(12)</sup> Conversely, children who live in highly supportive neighborhoods have positive outcomes such as stronger connections with family, peers and community, and greater participation in out-of-school time programs, volunteering, and religious services. <sup>(13)</sup>

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**QUESTION(S):**

- |     |                                                                                             |              |
|-----|---------------------------------------------------------------------------------------------|--------------|
| 94. | Does your family own a car, van or truck?                                                   | <b>Local</b> |
| 95. | Do you have your own bedroom for yourself?                                                  | <b>Local</b> |
| 96. | During the past 12 months, how many times did you travel away on vacation with your family? | <b>Local</b> |

**RATIONALE:**

These three questions comprise the Family Affluence Scale (FAS). The FAS is a measure of family wealth developed in the WHO Health Behavior in school-aged Children Study.<sup>(1)</sup> It is an alternative measure to parent-based income and occupation measures previously used to assess SES in youth. These previous measures

have been proven inconsistent and inadequate.<sup>(2)</sup> The FAS is proven to be relevant in 35 countries and can be used to determine relationships between SES and adolescent health.<sup>(3)</sup>

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**QUESTION:**

99. During the past 12 months, have your parent(s) or guardian(s) ever been in prison or jail?

**Local**

**RATIONALE:**

Several local agencies and organizations in the greater Cleveland area have joined forces and launched an initiative to address the numerous challenges faced by children of incarcerated parents. <sup>(1, 2)</sup> One of the challenges is estimating the number of children involved. <sup>(3)</sup> The information collected by this question will help the initiative (and others nationwide who are providing services to children of incarcerated parents) obtain basic prevalence data for this population. Currently, information about children with an incarcerated parent or guardian is piecemeal in nature, supplied in non-standardized ways from multiple sources (e.g., corrections, schools, child welfare department).

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## QUESTION(S):

100. During the past 12 months, have you been stopped, questioned, or searched by police? **Local**
101. During the past 12 months, how would you describe any encounters you had with the police? (Count encounters you had at home, in school, and in your neighborhood.) **Local**

## RATIONALE:

Prior studies indicate that one primary influence on a youth's attitudes toward police officers is the youth's own past experiences with police officers. <sup>(1)</sup> Police serve as significant gatekeepers between youth and the juvenile justice system, yet a large proportion of interactions between police and youth can be categorized as negative. <sup>(2)</sup> Because juvenile arrests increase the likelihood of negative outcomes for youth in later in life, understanding the predictions of negative interactions is important. <sup>(3)</sup> However, interactions that end in arrest are only a small portion of the encounters that occur between police and youth. Adolescents may develop negative attitudes from other negative interactions with police that do not end in legal action. For example, youth who have a negative, non-arrest experience with police, whether such experience was youth-initiated (e.g., asking an officer for information, asking for help in non-criminal matters) or police-initiated (e.g., being stopped while standing on the street or when driving or riding in a car), report less positive attitudes toward the police than youth who had positive contacts. <sup>(5)</sup> American Civil Liberty Union's across the nation are interested in youth and adult experiences with police. These questions were taken from the ACLU of Wisconsin's "A Survey about Police". <sup>(6)</sup> Additionally, these questions were added to the survey per request and input from Chief Gonzalez of the Cleveland Metropolitan Housing Authority and Gabriella Celeste from the Schubert Center for Child Studies at Case Western Reserve University.

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**QUESTION:**

103. What is your zip code?

**Local**

**RATIONALE:**

Data analyzed using zip codes indicate that environmental factors as well as individual factors increase the risk of poor health outcomes. <sup>(1)</sup> Residential segregation by race and ethnicity between zip codes affects health care utilization. <sup>(2)</sup>

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## Grades

**QUESTION:**

102. During the past 12 months, how would you describe your grades in school?

**National - Core**

**RATIONALE:**

This question measures academic grades in school. The academic success of America's youth is strongly linked with their health. Health-related factors such as hunger, physical and emotional abuse, and chronic illness can lead to poor school performance. <sup>(1)</sup> Health-risk behaviors such as early sexual initiation, violence, and physical inactivity are consistently linked to poor grades and test scores and lower educational attainment. <sup>(2-4)</sup> In turn, academic success is an excellent indicator for the overall well-being of youth and a primary predictor and determinant of adult health outcomes. <sup>(5-7)</sup> Leading national education organizations recognize the close relationship between health and education, as well as the need to foster health and well-being within the educational environment for all students. <sup>(8-10)</sup> This question would provide data to monitor the important link between health-risk behaviors and academic achievement.

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## Measurement of Nicotine Dependence among Adolescent and Young Adult Cigarillo Users

### QUESTION(S):

- |      |                                                                                                                              |              |
|------|------------------------------------------------------------------------------------------------------------------------------|--------------|
| 104. | When I haven't been able to smoke for a few hours, the craving gets intolerable.                                             | <b>Local</b> |
| 105. | I drop everything to go out and buy tobacco products.                                                                        | <b>Local</b> |
| 106. | I smoke more before going into a situation where smoking is not allowed.                                                     | <b>Local</b> |
| 107. | I find myself reaching for tobacco products without thinking about it.                                                       | <b>Local</b> |
| 108. | I chain smoke tobacco products.                                                                                              | <b>Local</b> |
| 109. | I feel anxious when I run out of tobacco products.                                                                           | <b>Local</b> |
| 110. | The only thing that can calm me down is a tobacco product.                                                                   | <b>Local</b> |
| 111. | I get irritated if I can't smoke a tobacco product when I feel like using one.                                               | <b>Local</b> |
| 112. | I think about how I will get my next tobacco product.                                                                        | <b>Local</b> |
| 113. | I like to smoke an entire tobacco product by myself.                                                                         | <b>Local</b> |
| 114. | When I am in a group I prefer to smoke my tobacco product without sharing.                                                   | <b>Local</b> |
| 115. | I plan to have tobacco products available when I need them.                                                                  | <b>Local</b> |
| 116. | Do you consider yourself a smoker?                                                                                           | <b>Local</b> |
| 117. | Which statement best describes the rules about smoking inside your home? (By "smoking" we mean smoking cigarettes or cigars) | <b>Local</b> |

### RATIONALE:

These questions were added to enhance surveillance efforts for the **Measurement of Nicotine Dependence among Adolescent and Young Adult Cigarillo Users** study, under the direction of principal investigator, Susan Flocke, PhD and study investigator, Erika Trapl, PhD, of the Departments of Family Medicine and Community Health and Epidemiology and Biostatistics at Case Western Reserve University. The focus of this study is to investigate factors related to the usage of cigarillos and little cigars in teenagers and young adults aged 14 to 28. These cigar products are most often referred to by users by brand names, such as Black & Milds, Swisher Sweets, or White Owls, or as "rillos," "cigars," or "blunts" (especially in the context of co-use

with marijuana). As opposed to cigarettes, the detrimental health effects of cigar products are less well known, and their usage is more common amongst cohorts exhibiting disadvantaged socioeconomic status.

Items 104-115 are adapted versions of PROMIS nicotine dependence items. These items have been extensively researched and tested to effectively measure nicotine dependence. For our purposes, they have been edited to be product-neutral rather than specifically referring to cigarettes so that nicotine dependence can be measured in users of cigars, cigarillos, and little cigars. <sup>(1-2)</sup> The purpose of item 116 is to gather information on respondents' perception of themselves as having smoker identity, or identifying themselves as smokers. Self-identifying as a smoker can have a strong effect on quitting; influencing willingness to quit, belief that quitting is necessary, and receptiveness to quitting messages. Currently, a growing trend among young smokers is to smoke only socially or occasionally, which is associated with belief that one is not a “real” smoker. This behavioral style of smoking is common amongst cigar, cigarillo, and little cigar smokers. Due to this belief, smokers may continue their harmful behaviors without being fully aware of the dangers they are placing themselves in and in fact be resistant to conventional intervention tactics. This item, in conjunction with various demographic, quitting, and product use items elsewhere in the survey, will help us to understand the study population's view of their own identity in regards to their tobacco consumption. <sup>(3-5)</sup>

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